Donne and the *Sidereus Nuncius*:
Astronomy, Method and Metaphor in 1611

by

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Abstract: “Donne and the *Sidereus nuncius*: Astronomy, Method and Metaphor in 1611”

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John Donne’s poetry has long been famous for its metaphysical conceits, which powerfully register the impact of the “New Philosophy,” yet the question of how his work is implicated in the new forms of knowledge-making that exploded in the early seventeenth century has remained unanswered. “Donne and the *Sidereus nuncius*” examines the relation between method and metaphor on the cusp of the Scientific Revolution by reading the poetry and prose of Donne in the context of developments in early modern astronomy, anatomy and natural philosophy. I focus primarily on two texts, *Ignatius, his Conclave* (1610) and the *Anniversaries* (1611-2), which are linked not only by chronology, but also by their mutual concern with the effects of distorted perception on the process of understanding the universe. Written directly after the publication of Galileo’s *Sidereus nuncius* (1610), these works offer a historicized perspective on Donne’s changing use of scientific metaphor in relation to the transformative crux of the discovery of the telescope, which provided a startling new optical metaphor for the process of knowing.

In this context, “Donne and the *Sidereus nuncius*” considers the conceptual work performed by scientific metaphor as part of an ongoing transformation from emblematic to analogic figuration. Donne’s search for material that is, in his phrase, “appliable” to other subjects, depends on an analogic conception of metaphor, a comparison that enables new thinking by identifying underlying commonalities between disparate objects. Building on this understanding of metaphor as comparative, I examine Donne’s self-conscious use of metaphors of methodical knowledge making—innovation, invention,
anatomy and progress—in the context of instrumental metaphors, such as the telescope, spectacles, perspective, and travel narratives. In doing so, I suggest that Donne's metaphorical conceits explore the conflict between scientific attempts to discern order in nature and the distorting effects of methodological frameworks imposed on the object of analysis.
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## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Figures</td>
<td>vii</td>
</tr>
<tr>
<td>Introduction: “All in Doubt?”: John Donne and the Scientific Revolution</td>
<td>1</td>
</tr>
<tr>
<td>Chapter One: Moving the Earth and Drawing Down the Moon:</td>
<td>36</td>
</tr>
<tr>
<td>Donne, Galileo, Kepler, and the Reception of Copernicus</td>
<td></td>
</tr>
<tr>
<td>Chapter Two: “Old Men’s Spectacles”: Innovation, Chronology,</td>
<td>109</td>
</tr>
<tr>
<td>and the History of Knowledge in <em>Ignatius, his Conclave</em></td>
<td></td>
</tr>
<tr>
<td>Chapter Four: “By circuit and collections to discerne”: The Trajectory of Progress and the Commemoration of Elizabeth Drury</td>
<td>261</td>
</tr>
<tr>
<td>Conclusion: “The Copernicus of Poesie”</td>
<td>309</td>
</tr>
<tr>
<td>Works Consulted</td>
<td>312</td>
</tr>
<tr>
<td>Copyright Acknowledgements</td>
<td>381</td>
</tr>
</tbody>
</table>
List of Figures

Figure 1.1. The Astro-peolico-pyrgium. Frontispiece, Johannes Kepler, Tabulae Rudolphinae. 1627.

Figure 3.1. Title Page. Andreas Vesalius, De fabrica. Basel, 1543. (Anatomia 1522–1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)

Figure 3.2. Title Page. Jean Riolan, Encheiridium anatomicum et pathologicum. Leiden, 1649. (Anatomia 1522–1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)

Figure 3.3. Title Page. Pieter Paaw, Succenturiatus anatomicus, continens commentaria in Hippocratem, De capitis vulneribus: additae in aliquot capita libri VIII. C. Celsi Explicationes. Leiden, 1616. (Philip Oldfield and Richard Landon, Ars Medica: Medical Illustration through the Ages. Toronto: Thomas Fisher Rare Book Library, 2006, fig. 30.)

Figure 3.4. Humani corporis ossium cæteris quas sustinent partibus liberorum suaque sede positorum ex latero delineatio. Andreas Vesalius, De fabrica. Basel, 1543. (Anatomia 1522–1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)
Figure 3.5. Prima musculorum tabula. Andreas Vesalius, De fabrica. Basel, 1543. 
(Anatomia 1522-1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)

Figure 3.6. Surface anatomy of female figure. Johann Remmelin, Catoptrum microcosmicum. Ulm, 1639. (Anatomia 1522-1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)


Figure 3.8. Tertia quinti libri figura. Andreas Vesalius, De fabrica. Basel, 1543. (Anatomia 1522-1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)

Figure 3.9. Venarum et item arteriarum omnium integra aboluta que delineatio. Andreas Vesalius, De fabrica. Basel, 1543. (Anatomia 1522-1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)

Figure 3.10. Tongue with its muscles. Andreas Vesalius, De fabrica. Basel, 1543. (J. B. DeC. M. Saunders and Charles D. O’Malley, The Illustrations from the Words of Andreas

Figure 3.11. Zodiac man. Johannes de Ketham, *Fasciculus medicinae.* Venice, 1522
*(Anatomia 1522-1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)*

Figure 3.12. Corporis humani ossa posteriori facie proposita. Andreas Vesalius, *De fabrica.* Basel, 1543. *(Anatomia 1522-1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)*

Figure 3.13. Detail from Surface anatomy of female figure. Johann Remmelin, *Catoptrum microcosmicum.* Ulm, 1639. *(Anatomia 1522-1867: Anatomical Plates from the Thomas Fisher Rare Book Library, digital collection)*
Introduction:

All in doubt? John Donne and the Scientific Revolution

And new Philosophy cals all in doubt,
The Element of fire is quite put out;
The sun is lost, th'earth, and no man's wit
Can well direct him, where to look for it,
And freely men confesse, that this world's spent,
When in the Planets, and the Firmament
They seek so many new; they see that this
Is crumbled out againe to his Atomis.
'Tis all in pieces, all cohaerence gone;
All iust supply, and all Relation:
Prince, Subject, Father, Sonne, are things forgot,
For every man alone thinkes he hath got
To be a Phoenix, and that there can bee
None of that kinde, of which he is, but hee.¹

What was it like to experience the radical changes in knowledge that marked the
seventeenth-century Scientific Revolution—if there even was such a moment? Over the
course of the twentieth century, whenever writers on the history of science have tried to
answer this question, they have turned to John Donne, and, in particular, the “new
Philosophy” passage from the *First Anniversary*. Almost every synthetic history of the
Scientific Revolution makes space for the phrase, and it is the victim of drive-by
quotations in most literary studies that touch upon early modern science. It is Donne’s
striking image of heavenly disorder—“all in pieces, all cohaerence gone”—that has made
this passage so popular as a description of the seventeenth-century breakdown in
knowledge, both before and after Kuhn formulated his idea of the paradigm shift. The
passage brings epistemological uncertainty into conjunction with the Copernican
discoveries, generalizing the dissolution of the crystalline spheres as a breakdown of social
order, and alluding to theories of the plurality of worlds and the atomism of the skeptics
for good measure. This failure of knowledge is metaphorically depicted as blindness—a
representation of skeptical doubt and the failure of the intellect to direct vision.

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2 For recent arguments over the idea of the Scientific Revolution, see David C. Lindberg
and Ronald L. Numbers eds., *Reappraisals of the Scientific Revolution* (1990); the
Inquiry* (1994); Steven Shapin, *The Scientific Revolution* (1996); Margret Osler ed.,
*Rethinking the Scientific Revolution* (2000); Peter Dear, *Revolutionizing the Sciences* (2001);
and Lorraine Daston and Katherine Park eds., *The Cambridge History of Science*, Vol. 3:

3 The “new Philosophy” passage is quoted in, for instance, Alexandre Koyré, *From the
Closed World to the Infinite Universe* (1957) 29; E. M. W. Tillyard, *The Elizabethan World

successfully amongst the myriad of particulars produced in an atomized world. The absence of the sun’s light becomes a metaphor both for the absence of God and for the failure of the intellect, posing the question of whether there has been a breakdown of God's order or of man’s ability to know that order.

These striking claims have been so attractive to historians and critics in part because Donne made them in 1611, the year after Galileo’s discoveries with the telescope. This moment, when a technological invention provided new facts about the heavens and provoked controversial arguments about their meaning and validity, has often been described as the defining episode of the Scientific Revolution. Galileo’s report of his discoveries, the *Sidereus nuncius*, provided observational evidence that contributed to the ongoing development of new mathematical models for the heavens, and his methods of inference and argument, both in this work and in later texts such as the *Dialogue on the Two World Systems* (1632), set new standards for how that evidence might be interpreted. Galileo’s writings—along with that of his close contemporary Johannes Kepler—provided a vital link in the development of the new mathematized sciences,

5 A sense of how Donne was understood by his contemporaries can be seen in William Drummond’s *A Cypresse Grove* (1623), where he paraphrases and expands upon the passage:

The Element of Fire is quite put out, the Aire is but Water rarified, the Earth is found to move, and is no more the Center of Universe, is turned into a Magnes; Stares are not fixed, but swimme in the etheriall Spaces, Cometes are mounted above the Planetes; Some affirme there is another World of men and sensitive Creatures, with Cities and Palaces in the Moone; the Sunne is lost, for, it is but a Light made of the conjunction of manie shining Bodies together, a Clift in the lower Heavens, through which the Rayes of the highest defuse themselves, is observed to have Spots; Thus, Sciences by the diverse Motiones of this Globe of the Braine of Man, are become Opiniones, nay Errores, and leave the Imagination in a thousand Layrinthes. (II. 348-59)

Drummond’s reading amplifies as well as explains the descriptions of these changes in knowledge, including material that would have been unavailable to Donne, such as the interpolation of claims about sunspots, which were first observed in 1613.
connecting Nicolas Copernicus’ hypothesis of a sun-centered universe in the *De revolutionibus* (1543) with the classical physics of Isaac Newton’s *Principia Mathematica* (1687). Galileo’s discoveries, as well as his interrogation and condemnation by the inquisition, established him as the archetypal figure of the Scientific Revolution. This astronomy-centered, ‘great man’ history has been vigorously challenged by work on medicine and anatomy, alchemy and experiment, natural history and botany, and cultural histories of science more generally. Similarly, Galileo’s place in these developments has undergone significant reevaluation. Despite these challenges, his work still retains an important place in the history of science.

Donne’s place as the corresponding representative of poetic work has not undergone a similar revision. As the “new Philosophy” passage suggests, he was deeply interested in scientific theories, and processes of examination play a central role in his poetic practice. He organizes poems such as the *Anniversaries* in relation to the proliferating schemes for knowledge in the late sixteenth century: Aristotelian natural philosophy; the hypothetical models of astronomy; classical, humanist and Ramian rhetoric; the competing Galenic and Paracelsan theories of the body; Vesalian anatomy; and the revived skeptics. As a result, his poems are full of contradictory and

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complementary orderings of the world, derived from the relation between a variety of ways of knowing—mental and bodily (the faculties of the mind, the senses), material ('glasses', books), and logical (the ‘anatomy’, the ‘progress’). It is the disorder caused by these overlapping schemes of order that produces an image, in the *Anniversaries*, of a world falling apart.

For much of the twentieth century, Donne’s poetry was read as a barometer of science in his age, an indicator that registered the pressure of the advancing storm-front of the Scientific Revolution on literary culture. Such an account of Donne’s poetry assumes a straightforward relationship between new forms of knowledge and poetic representation. This dissertation aims to provide a long-overdue reassessment of the connections between Donne and early modern scientific culture, focusing on the metaphorical and methodical work of his writings. It rejects conceptions of Donne’s work, and the work of literature more generally, as subordinate to and parasitic upon scientific work. Conventional depictions of Donne’s response to new discoveries as symptomatic of the disjunction between the older learning and the “New Philosophy” efface the particularity and complexity of his use of scientific matter. Rather than reading literary writing as a separate field of endeavour into which changes in the understanding of the natural world forced themselves, I consider their mutual participation in discourses about the nature and purpose of the universe, and in particular the use of metaphorical representation to compare, connect, and organize natural particulars. I explore Donne’s deliberate and self-aware deployment of different astronomical hypotheses and natural philosophical descriptions of the cosmos, emphasizing his metaphorical use of processes of knowledge-making as the basis for his practice of poetic figuration.
To do so, I consider Donne’s works at a moment when knowledge was made new in a very specific way—the year 1611, just after the publication of Galileo’s *Sidereus nuncius*, when initial popular interest in observation with the telescope was at its height and before a consensus about the significance and meaning of these discoveries had stabilized. By concentrating on a single year, this study attempts to historicize Donne’s work closely in the context of the new knowledge and new ways of knowing offered by the invention of the telescope, as well as the controversies over Copernicanism that arose in the wake of Galileo’s observations. I focus on the relationship between method and metaphor in Donne’s work, and pay attention to his use of methodical and instrumental metaphors as a means of organizing and interrogating the process of understanding the world. I consider Donne’s use of instruments, and particularly optical instruments, as figures that enable and confuse attempts to distinguish between exterior appearance and interior structure. Finally, I argue that Donne’s metaphors comparing instruments and methodical practices to metaphysical structures are a vital stage in longer-term shifts in the use of metaphor, in relation both to science and early modern culture as a whole.

**Starry Messages: News of Telescopic Discoveries**

In 1610, Galileo published his description of his observations through the telescope under the title *Sidereus nuncius*. News of the discoveries spread quickly across Europe in letters to sovereigns, nobles and learned men. Sir Henry Wotton, King James’s ambassador to Venice and a close friend of Donne, was the first to send word to England in a letter to the Earl of Salisbury:

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I send herewith unto his Majesty the strangest piece of news (as I may call it) that he hath ever yet received from any part of the world; which is the annexed book (come abroad this very day) of the Mathematical Professor at Padua who by help of an optical instrument (which enlargeth and approximateth the object) invented first in Flanders, and bettered by himself, hath discovered four new planets rolling about the sphere of Jupiter, besides many other unknown fixed stars; likewise, the cause of the *Via Lactea*, so long searched; and lastly, that the moon is not spherical, but endued with many prominences, and, which is of all the strangest, illuminated with the solar light by reflection from the body of the earth, as he seemeth to say. So as upon the whole subject he hath first overthrown all former astronomy—for we must have a new sphere to save the appearances—and next all astrology. For the virtue of these new planets must needs vary the judicial part, and why may there not be more? These things I have been bold thus to discourse unto your Lordship, whereof here all corners are full. And the author runneth a fortune to be either exceedingly famous or exceeding ridiculous. By the next ship your Lordship shall receive from me one of the above-named instruments, as it is bettered by this man.9

Written on the very day of publication, Wotton’s letter carefully reports the central claims of Galileo’s book and their additions to astronomical knowledge. He mentions the observation of the four moons of Jupiter; the discovery that innumerable stars make up

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the Milky Way; the roughness of the moon’s surface and its illumination by reflection from the earth. Moreover, Wotton notes the importance of these new ideas for both astronomy and astrology—the modification of the Ptolemaic model and the need to recast horoscopes to account for the influence of the new planets. At the same time, his tone emphasizes the wondrous nature of these “novelties,” the sense that their usefulness lies in the entertainment they provide. They are “the strangest piece of news...yet received from any part of the world,” and that strangeness is emphasized by Galileo’s ambiguous position in the report. While he is identified, and thus authorized, by his position as “Mathematical Professor at Padua,” he also wavers between the roles of discoverer and clown: he “runneth a fortune to be either exceedingly famous or exceeding ridiculous.”

The ambiguity surrounding the importance of this astronomical news is most apparent in the concluding sentence of the section: “Now to descend from those superior novelties to these below, which do more trouble the wise men of this place” (467). Wotton’s characterization of Galileo’s observation as “superior novelties” plays upon the fact that these discoveries are situated in the heavens. While Galileo’s text reports changes in the supposedly unchanging heavens, their importance is unclear when compared to the following matter which “more trouble[d] the wise men of this place:” the alliance between the French King and the Duke of Savoy against the Duke of Milan.

Galileo’s discoveries are simultaneously cosmologically important and practically insignificant. They are not just less pressing, but suited to an entirely different purpose: the distraction of those ordinarily troubled by terrestrial concerns. At the same time, these concerns with political power also appear in the metaphors of conquest that Wotton deploys to describe Galileo’s discoveries. These descriptions are part of the
construction of Galileo as a new *auctor*, one who can take his place only by displacing old *auctores*—he is said to have “first overthrown all former astronomy...and next all astrology.”

Wotton’s description of this violent revolution in the discipline of astronomy suggests the contemporary perception of a struggle over its authority, and the complicated negotiation of knowledge involved in the dissemination of these discoveries. It brings into conjunction the relationships between books and instruments, knowledge and novelty, authority and innovation. Wotton’s inclusion of a copy of Galileo’s book along with a promise that it would be followed by “the above-named instruments” groups together several different sorts of devices involved in the making of scientific knowledge—the telescope, the printed book, and the letter. In addition to the objects seen through the new optical device and portrayed in the *Sidereus nuncius*’ illustrations, Galileo’s own account and the supposedly objective reports of ambassadors such as Wotton helped to transform Galileo’s claims into accepted knowledge.

Galileo’s observational discoveries were read in the context of the work of his predecessors and contemporaries, particularly Nicolas Copernicus (1473-1543), Tycho Brahe (1546-1601), and Johannes Kepler (1571-1630). Early astronomy was in a state of creative ferment as a result of a combination of new hypothetical orders in the heavens—such as the Copernican and Tychonic systems—and new observed phenomena—including the *novae* and comets observed by Brahe and Kepler. The observations reported in the *Sidereus nuncius* provided additional ammunition for Copernican arguments without furnishing adequate proof to firmly establish their truth. Although Galileo was scrupulous to avoid the topic of Copernicanism in his work, his
methods of argument—particularly in the case of the observations of the moon’s surface and the effects of reflected light—showed a decided sympathy for Copernicus’s methods of analysis. At the same time, the observational, rather than theoretical, nature of his claims also posed new questions about both the nature of the heavens and use of optical instruments in producing knowledge. It was these disputes, and the questions they posed, that were to provide Donne with the matter for his poetic conceits.

**Donne and the *Sidereus nuncius***

Galileo’s observations of the moon fall at the hinge-point of Donne’s years of crisis—the period between his disastrous marriage in 1601 and his ordination in 1615. In 1610, Donne was almost forty, and still mired in the difficulties caused by the loss of his position as secretary to Sir Thomas Egerton. During the intervening period, Donne and his growing family survived on the support of his wife’s relatives, first at Pyrford and then at Mitcham, in circumstances that his letters repeatedly describe in melancholy terms. Despite his efforts over the previous decade, he had been unable to find a patron with comparable influence who might improve his prospects for advancement. Donne’s attempts to fit himself for employment, which included controversial work in support of the King and poetic composition for the Countesses of Bedford and Huntingdon, had failed to provide him with a place. It was only late in the year, after composing a funeral

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elegy for their daughter, that Donne finally obtained a position as secretary to Sir Robert Drury. While Drury was not of the same eminence as the Lord Keeper, Donne’s association with him provided lodging in London, in Drury Lane, and the stability necessary to re-establish himself.

This personal crisis has become closely intertwined with the epistemological crisis of the Scientific Revolution. The same conception of a breakdown in knowledge has itself become commonplace in discussions not just of Donne’s scientific work, but also of his life as a whole—as in John Carey’s account of Donne’s life, which figures his apostasy as a crucial break.11 This tradition has led to a series of post-structuralist, New Historicist, and psychoanalytic studies over the last twenty-five years—especially those of Docherty, Grossman, Marotti, and Corthell—which have used a crisis of faith or knowledge as a focus for discourses of power and anxiety.12 Characterizing the Anniversaries, and other works of this period, as markers of Donne’s internal motivations is problematic, however. While the poems can be read as an example of epistemological breakdown under the pressure of new discoveries, or as a displacement of guilt and anxiety, these readings ignore both the generic expectations of these funeral poems and their methodical forms. The idea of disorder—the mundus senescens, or dying world—paradoxically provides an organizing principle for the argument of the First Anniversary. Donne uses it as a strategic resource, a conceptual scheme that links together his descriptions of the world.13

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13 As Aschah Guibbory notes in her book, the Map of Time (1986), the idea of decline is one of the conventional early modern conceptions of chronological change. See also, Victor Harris, All Coherence Gone (1949).
This supposed period of instability coincides with a group of texts in which Donne significantly addresses both new knowledge and the authority of antique learning associated with the decade before his ordination in 1615. This group includes four of his five major prose works: *Biathanatos* (1608), *Pseudo-Martyr* (1609), *Ignatius his Conclave* (1611), and *Essays in Divinity* (1614); a substantial selection of letters and verse letters, both to friends and patrons; his series of epicedes and obsequies; and the two *Anniversaries* (1611–12). The choice of dateable texts is necessarily biased, but is the unfortunate result of the particular textual problems of Donne’s canon: the initial dissemination and circulation of the majority of his poetic work in manuscript and the delay of print publication until two years after his death. As a result, the dating of most of Donne’s central poetic works—the *Songs and Sonnets, Elegies, Satyres, and Holy Sonnets*—is contested, and this problem is exacerbated by the uncertain relationship between the poems and the generic categories into which they are usually grouped. By contrast, the focus on dateable texts produces an emphasis on works associated with particular forms of patronage, whether the controversarial writings intended to gain favour with James I or the poems of praise and consolation associated with the circles of the Countesses of Bedford and Huntingdon, or with the Druries.14

This study directs its primary attention to a subset of these works: Donne’s polemical satire of the Jesuits, *Ignatius his Conclave*, and the consolatory memorial poems for Elizabeth Drury, *The Anniversaries*. Both poems and satire were written or published during 1611, the year after the publication of Galileo’s *Sidereus nuncius*, and include some

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of Donne’s most substantial and important treatments of scientific knowledge. As such, they offer us a crucial opportunity to assess Donne’s more or less immediate critical reactions to Galileo’s observations of the moon, discovery of the satellites of Jupiter, and invention of the telescope, while debates about the value and solidity of this knowledge were still ongoing.

These works have consistently been separated or opposed to each other in critical analysis. Marjorie Nicolson, the most influential critic on the relationship between early modern science and literature in the middle of the twentieth century, is representative of this attitude. She claimed that although “[b]arely a year had passed,” between the composition of *Ignatius, his Conclave* and the *First Anniversary*, “yet the Donne who had laughed in *Ignatius* had come to realize that the ‘new Philosophy’ might indeed call all in doubt.” Her emphasis on the very different portrayals of astronomy in the two texts was the result of a change she observed in Donne’s attitudes. Contrary to this claim, the differences between *Ignatius, his Conclave* and the *Anniversaries* arise not from Donne’s changing opinions, but from their generic expectations. Indeed, examined carefully, the attitudes of the two texts can be seen as highly complementary. They offer different lenses, one satiric, the other elegiac, through which the reader can observe contemporary astronomical and natural philosophical work.

These texts hold very different places in Donne’s canon. The first of them was the anonymously published Latin polemical attack on the Jesuits, the *Conclave Ignati*, successful and topical enough to be reprinted several times on the continent and

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15 Anita Gilman Sherman, *Skepticism and Memory in Shakespeare and Donne* (2007), provides the only significant exception.
translated by Donne himself for publication in England as *Ignatius, his Conclave* (1611). The satire takes the form of a dream vision that finds Ignatius Loyola, the founder of the Jesuit order, in Hell, acting as chief advisor and confidant to Satan himself. Ignatius’ position is challenged by a series of innovators—including Copernicus, Paracelsus, Machiavelli and Columbus—who claim his place at Satan’s side because of their supposedly impious discoveries. The ensuing dialogues allow Ignatius an opportunity to condemn himself and the whole of the Society of Jesus for its own supposed sins of innovation.\(^1\)

Conventionally, *Ignatius, his Conclave* has been read in a several different ways: as a series satiric portraits of controversial innovators through which we might gain insight into Donne’s own opinions of their works; as an example of the contemporary genre of Menippean satire, one of a series of early modern revivals of this supposedly classical genre; and, in its controversarial and political context, as a supplement to *Pseudo-Martyr*, Donne’s serious contribution to the ongoing controversy between James I and Cardinal Bellarmine. As Denise Albanese has suggested, this satire of new knowledge also provides an ideal site in which to consider the changing state of learning at the beginning of the seventeenth century.\(^2\) Donne’s satiric portrayals of these canonical innovators, as well as new figures like Galileo and Kepler, suggest his awareness of the historicity of new inventions and discoveries at a moment when the idea of new-ness was crucially important. Moreover, Donne’s attack on the Jesuit order and the Catholic church links scientific innovation to wider questions of religious and secular authority in early modern


culture. This critical turn is reinforced by Donne’s framing dream vision that emphasizes the satiric lens through which the text portrays the world.

Despite its comic character, *Ignatius, his Conclave* shares an obsessive concern with the minutiae of theological debates with his other prose works of the same period, *Biathanatos, Pseudo-Martyr*, and *Essays in Divinity*. Its parodic controversarial form, together with the topicality and density of its references, make it a difficult text for modern audiences—especially in comparison to the accessibility of Donne’s most famous prose work, *Devotions Upon Emergent Occasions* (1624). Despite this apparent difficulty, it also provides a crucial place for work on Donne’s language, being a text in both Latin and English. While Donne’s translation is not strictly literal—he does not quite replicate the Senecan brevity of the original—the Latin and English texts of *Ignatius, his Conclave* offer a site where we can examine the influence of language on the formation of new concepts. This combination of linguistic and historical traits makes the satire an important site for our understanding of Donne’s attitudes to scientific knowledge, particularly when placed alongside the very different framing assumptions of his *Epicedes, Obsequies* and *Anniversaries*.

By contrast, the two *Anniversaries*—“An Anatomy of the World,” 1611, and “The Progress of the Soul,” 1612—have a stable and, indeed, central position in Donne’s canon. This long, complex pair of funerary poems have not only attracted a wide variety of responses, but also came to be seen as the *locus classicus* for discussions of the relationship between Donne’s writing and scientific knowledge. The sheer variety of scientific material they contain, the inventive and deliberately distorted manner in which it is deployed, and their depiction of a world in which sense and order are giving way to
chaos have all attracted the attention of scholars concerned with the impact of the
Scientific Revolution.¹⁹

Despite this consistent reading of the *Anniversaries*, there has been a radical
decline in critical interest in Donne’s use of scientific knowledge, and particularly
astronomy, which for so long held a central place in the study of his works. For
twentieth-century critics such as Charles Monroe Coffin, William Empson, and Marjorie
Nicolson, the scientific matter mobilized in Donne’s metaphysical conceits was a central
topic in the interpretation of his texts.²⁰ Now—with the exception of work on medical
knowledge—the scientific has become a peripheral concern in literary analysis of Donne’s
work.²¹ This decline in the importance of the scientific parallels a similar decline in
formalist readings of Donne. Donne’s place as perhaps the iconic writer for the New
Critics and their analysis of form—as the title of Cleanth Brooks’ *The Well Wrought Urn*
suggests—is well known. However, during the same period, the interest of critics such as
Coffin, Empson, and particularly Nicolson in the historical context of Donne’s writing
drew attention to the formal properties of his use of metaphors drawn from geometry,
natural philosophy and, above all, astronomy. These interests, however, have been largely
displaced by other concerns. I want to return to them via the works of two supposedly
opposed critics: Barbara Lewalski and Edward Tayler.

¹⁹ For the complex history of reactions to the *Anniversaries* see the summarized debates in
volume 6 of the *Variorum*.
²⁰ See in particular, Charles M. Coffin, *John Donne and the New Philosophy* (1937);
Marjorie Hope Nicolson, *Breaking the Circle* (2nd ed., 1960); and William Empson,
²¹ On Donne and medicine, see, Don Cameron Allen, “John Donne’s Knowledge of
Renaissance Medicine” (1943); David Hirsch, “Donne’s Atomies and Anatomies” (1991);
Donne, Affliction and Medicine” (2003); Elizabeth Harvey, “Mutual Elements” (2004);
Lewalski’s account of the Anniversaries in her book, *Donne’s Anniversaries and the Poetry of Praise: The Creation of a Symbolic Mode* (1973) is valuable for a number of reasons. It marks one of the few sustained attempts to set the poems in the context of Donne’s other funerary poems and sermons, as well as his courtly verse more generally. While her larger project was to describe how Donne’s poem was part of a new and importantly different “protestant poetics,” she provides a discussion of the long-neglected generic resemblance between the *Anniversaries* and Donne’s other commemorative poems of the same period. As she pointed out, the methods used in this funereal “poetry of praise” are not significantly different from those of his funeral elegies and his other patronage poems of the same period. Although the scope and pitch of hyperbole in the *Anniversaries* is higher than in the *Epicedes* and *Obsequies*, the works employ the same general strategies, allowing them to be read against each other. Lewalski’s approach to the poems as a process of making opens up the concern with method by drawing attention to the poems’ titles—“An Anatomy of the World” and “The Progress of the Soul.” Her approach is vital to an understanding of anatomy and progress as processes of commemoration.

In *Donne’s Idea of a Woman* (1991), Edward Tayler forcefully refutes what he describes as the ‘symbolist’ readings of Lewalski and other critics, which read the figure of Elizabeth Drury in the poem as a symbol for other ideas. Instead, he argues for the central role of vision in organizing understanding in the *Anniversaries*. While he claims that the poems’ meaning depends on perspectivalist theories of vision, Tayler is primarily concerned with Aristotelian faculty psychology, and particularly with Aristotle’s

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conception of the species. By contrasting the restricted, mediated vision experienced in the body with the unrestricted vision of the soul, which has ascended the “Watchtower” of understanding, Tayler’s book functions in part as a long gloss on Donne’s claim, in response to Ben Jonson, that he wrote about the “Idea of a Woman,” not Elizabeth Drury. In this construction, Donne’s poems are centrally concerned with the contrast between perceptions of the fallen world available to the fallible senses of the embodied soul, and the perfect world of heaven, seen by the soul through the medium of understanding—although the difficulties of attending to vision in the period are more complicated than Tayler suggests. Seen in this way, Lewalski and Tayler’s approaches can be understood as complementary versions of the same problem of making meaning, and this process of investigation is central to understanding Donne’s use of metaphor.

**Astronomy, Metaphor and Method**

“Who but Donne would have thought that a good man is a telescope?” Johnson’s question, in his “Life of Cowley” suggests change in the conventions of metaphor between Donne’s day and his own. Donne’s comparison was, in fact, entirely topical. The poem upon which Johnson was commenting, *Obsequies for Lord Harrington*, was written in 1614, a mere six years after the invention of the telescope in 1608 and only four years after the publication of the *Sidereus nuncius*, which had transformed the device from an object of curiosity into a sensational innovation. In this poem, as in *Ignatius, his Conclave* and the *Anniversaries*, optical metaphors provide one of the central metaphysical conceits,

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contrasting the deliberately distorted depictions of the world mediated by fallible optical devices or by the restricted senses of the body, with the knowledge available in heaven. This focus upon the mediation of observation points to a complex of concerns about the relationship between perception and knowledge which run through Donne’s writing and my argument: the central Copernican contention that the effect of observing the universe from the earth imparts apparent motion to the other objects of the universe; the validity of observation through ‘glasses’—mirrors, spectacles, and telescopes—and the sorts of distortion which they might produce; the limits on perception of an embodied soul, as opposed to the limitless vision of the unencumbered soul from the vantage of heaven; and the effect of what might be called methodical lenses upon observation.

Johnson’s condemnation of Donne’s metaphor, in his essay on the “Life of Crowley,” draws attention to the catechrestic excess of Donne’s conceits, thereby underscoring the incommensurability of the aesthetic and the scientific in the mores of the mid-eighteenth century. The telescope provides a particularly apt metaphor for catechrestic comparison because its ability to magnify allows the resolution of differences in scale. As the repeated use of processional tropes in his funeral elegies suggest, Donne saw these methods of magnifying his subjects as decorous, where Johnson did not. Johnson’s critique addresses itself to the idea of wit, a mode which put an emphasis on the far-fetched nature of comparisons. In doing so, however, he also sought to impose an aesthetic as well as moral meaning of proportion. Where, for Donne, the comparison

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of Harington to the telescope functions as a metaphor for the moral value of
contemplating his death, Johnson instead distinguishes between the ingenuity that
Donne demonstrates and his ability to please his readers: his poetry fails because of the
difficulty of his comparisons, suggesting that ease, fitness, and proportion are central to
the likeness. In this analysis, Donne's disproportionate metaphor, rather than magnifying
its subject, distracts the reader with its singularity and, in doing so, distorts the individual
it seeks to portray.

It is exactly this disproportion of comparison that Johnson draws attention to in
his oft-quoted description of metaphysical poetry:

The most heterogeneous ideas are yoked by violence together; nature and art are
ransacked for illustrations, comparisons, and allusions; their learning instructs,
and their subtlety surprises; but the reader commonly thinks his improvement
dearly bought, and, though sometimes admires, is seldom pleased. (218)

Johnson's critique is not merely aesthetic: it is also fundamentally skeptical about the
relationship between the objects, practices and concepts that Donne's metaphors seek to
yoke together, suggesting that they do not work well in tandem. These ill-fitting
comparisons produce, in Johnson's account, a syncretic rather than synthetic method of
expression whose objects are connected only by Donne's ingenuity. His use of the word
'yoke' transforms the components of the metaphysical conceit into clumsy oxen, which
pull against each other, rather than horses pulling together in harness. This supposed
disproportion between the tenor of the metaphor and its vehicle is reinforced by the
suggestion that this yoking is a form of violence, and the very ingenuity of the
comparisons are likened to a form of cultural plunder, in which “art and nature are ransacked for illustrations, comparisons and allusions.”

Judith H. Anderson’s recent account of the complex situation of metaphor in early modern English literature provides an excellent starting point for understanding the historical situation of Donne’s use of metaphors drawn from the sciences. She describes metaphor as simultaneously etymological and conceptual, participating in dynamic processes of cultural change by a process of sublation or scaffolding. Anderson’s historicized account of the relationship between metaphor and catechresis suggests the historical and cultural contingency of these categories that Johnson naturalizes. In doing so, she draws attention to their implication in problems of representational propriety, particularly the cultural ideas of likeness—as she puts it, “rhetoric […] shapes and organizes rather than merely expresses ‘the nature of things,’ rerum natura” (165).

It is precisely the relationship between metaphor and the nature of things that is at issue in Johnson’s description of metaphysical poetry as the “discovery of occult resemblances in things apparently unlike” (qtd. in Smith 218). The two central terms in this passage—“discovery” and “occult”—suggest the process of making involved in metaphysical poetry is more complicated than it seems. In Johnson’s formulation, “discovery” wavers between the modern sense of finding something and the early modern sense of revealing a secret—something covert—to public view. The resemblances discovered are “occult” primarily in the sense of being hidden, rather than because they

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27 Translating Investments (2005), esp. 129-65. On metaphor, see Paul Ricoeur, The Rule of Metaphor (1977); Lakoff and Johnson, Metaphors We Live By (1980). On metaphor and the philosophy of science, see in particular Max Black, Models and Metaphors (1962); Mary B. Hesse, Models and Analogies in Science (1966); Mary S. Morgan and Margaret Morrison, Models as Mediators (1999).
are magical, or, indeed, because of the perjorative connotations of Johnson’s formulation. To discuss occult resemblances in the context of early modern cultural production is to fix upon a crux in the making of scientific knowledge, in which adducing occult causes fatally undermined one’s argument. At the same time, to discover occult resemblances is exactly to make them apparent—and thus no longer occult.28

As Johnson’s double-edged description suggests, Donne’s work is one of the great laboratories of metaphorical experiment, in which close examination and description of natural particulars is combined with the inventive exploration of analogical correspondences. Despite Johnson’s disapproving tone, readings of Donne’s use of matter from natural philosophy and its associated disciplines have been dominated by his idea the ‘metaphysical conceit,’ an emphasis that has paradoxically marginalized discussion of natural philosophy in his work at the same time as admitting its central importance. Donne’s use of scientific matter, however, is anything but a neutral carrier for other ideas. Rather, it participates in the complex interaction between humanist and neo-scholastic method and draws upon a broad range of knowledge during the process of invention. Moreover, Donne’s attention to the metaphoricity of scientific matter—to its potential as a source not just for invention, but also as a reflexive commentary upon the processes of representation—involves his work in the shifting contests of knowledge-making at the beginning of what we now call the Scientific Revolution.

Astronomy participates in these changes via the theoretical problems associated with predicting the movements of the heavens. The new Copernican system proposed to

change astronomy not only by recentering the cosmos around the sun, but by changing
the boundaries of the discipline—breaking the disjunction between astronomy, which
predicted the movements of the heavens, and natural philosophy, which described the
physical form of cosmos. Traditional Ptolemaic astronomy was a mathematical system
designed to “save the appearances,” that is, to predict the movement of the stars without
necessarily reflecting the actual physical structure of the cosmos. This was, instead, the
responsibility of Aristotelian natural philosophy, which was built up from causal logic
rather than observation. Since the classical period, aspects of the Ptolemaic system had
come to influence the Aristotelian account of the cosmos’ structure—most famously in
the form of the crystalline spheres that provided a physical explanation for the
movements of the planets—without formally claiming to describe the physics of the
cosmos. Copernicus’ system, by contrast, claimed to provide a predictive framework and a
new physical description that was based, crucially, on structural principles.29 While
Copernicus’ new mathematical model for the cosmos, Tycho Brahe’s attempts to collect
an unprecedented store of astronomical data, Kepler’s mathematical work using Brahe’s
observations, and Galileo’s practical observations differed in their aims, they all pointed
towards this same goal: the physical description of the heavens based upon the
mathematical models of astronomy.

As Fernand Hallyn has suggested, this new process of making knowledge about
the heavens was undergirded by a sort of structural poetics: an aesthetics by which new

29 It is important to remember that the reception of Copernicus’ work in some parts of
the astronomical community, especially amongst the so-called Wittich circle, was initially
positive because it was possible to divorce the mathematical predictions of the model
from its physical claims. See Owen Gingerich and Robert S. Westman, The Wittich
Connection (1988).
organizational hypotheses about the structure of the world were judged in terms of their fitness and proportion.\textsuperscript{30} By relating the elegance and internal consistency of Copernicus and Kepler’s work to Renaissance theories of symmetry and proportion, he provides an account of the “principal consideration” in Copernicus’ method: the fit of mathematical structure to the frame of the heavens. The entirely new criterion for making claims about the heavens reflected broader shift in how knowledge was made.

Timothy Reiss’ account of these issues in \textit{Knowledge, Discovery, and Imagination in Early Modern Europe} (1997), describes the changing attitudes to these different sorts of knowledge in terms of a move from \textit{trivium} (logic, grammar, and rhetoric) to the \textit{quadrivium} (arithmetic, geometry, music, and astronomy), that is from logical and grammatical systems of creating meaning to an epistemology based upon proportion in mathematics, geometry, and music. In his account, mathematics succeeded in providing descriptive frameworks for nature during the seventeenth century, from Kepler’s description of the movements of the planets, to the physical experiments of Galileo, Hooke, and Boyle, to Newton’s system in the \textit{Principia Mathematica}. These achievements transformed the meaning of physics from a general term for the study of nature, to the modern, mathematized scientific discipline.

This astronomical and mathematical problem played an important part in the complex relationship between material culture, metaphor, and methodical knowledge-making in early modern Europe. Over the sixteenth and seventeenth centuries, metaphor underwent a shift in form and meaning, changing from emblematic to analogic. Emblematic metaphors were comparisons, like the late sixteenth century emblem or

impressa, in which the comparandum both stood in for and bore an innate connection to the original object. This substitutability depended upon a system of correspondences in which resemblance revealed an actual connection based upon the links between objects in the divine scheme of creation. William B. Ashworth Jr., writing about changes in the form of natural history, describes this conceptual habit as the “Emblematic world view.”

Donne’s description of the concentric circles produced by “water stirr’d” in “Loves Growth” provides an excellent instance of this sort of metaphoric comparison, one that uses correspondence to make connections between similar things:

If, as in water stirr’d more circles be
Produc’d by one, love such additions take,
Those like so many sphereas, but one heaven make,
For, they are all concentrique unto thee. (214)

The growth of love is described here by means of two comparisons—to the circular ripples radiating out from one point when water is disturbed, and to the single heaven defined by the concentric celestial spheres. The circular ripples and the celestial spheres, however, are related to each other as part of the all-encompassing system of microcosm and macrocosm. The regularity of the circles produced in water bears witness to the perfection of the circular form, a perfection that must obtain in the unchanging heavens beyond the “element of fire.” The result is an image in which the gentle stirring of feelings of love radiate outwards, growing into a harmonious image of the cosmos as whole. Yet, while the connection between the ripples in water and the concentric spheres

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31 See Ashworth, “Natural History and the Emblematic Worldview” (1990). In the context of his discussion of language and scientific knowledge, James J. Bono, The Word of God and the Languages of Man (1995) describes this change as a move from “symbolic exegesis” to “de-inscriptive hermeneutics” (167-198).
of the heavens are based upon the idea of correspondence, Donne’s comparison depends upon claims about the physical nature of universe drawn from natural philosophy. The relationships he describes, between ripples and celestial spheres, between both of these forms and the expansiveness of love, is founded not only on resemblance but on the underlying connection between all these parts of God’s creation.32

Analogic comparisons, by contrast, express a structural similarity between objects while maintaining a hermeneutic suspicion of the connections between the two.33 This suspicion does not, necessarily, reflect a lack of interest in the exemplary qualities of the object in question. Rather, worries about fitness, proportion, or the relationship between structure, frame, and pattern become a vital component in the judgment of the effectiveness of a comparison. With analogy, the relationship between objects may be unidirectional, or only an opportunity to identify some structural property of the object under consideration that is unconnected except by resemblance. There is an openness to the possibility that the comparison will be of use, even in cases where the initial comparison is potentially false, because it draws attention to and allows consideration of the structural features of the object of comparison.

This analogical disjunction in astronomy can be seen at work in one of Donne’s metaphorical comparisons from a letter to Sir Henry Goodyer:

It should be no interruption to your pleasures, to heare me often say that I love you, and that you are as much in my meditations as my self: I often compare not you and me, but the sphear in which your resolutions are, and my wheel; both I

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33 Compare, Foucault, The Order of Things (1970) 17-45, where he identifies analogy as one of the fundamental characteristics of the sixteenth-century episteme. At issue in the early seventeenth century is precisely the fitness of such comparisons.
hope concentrique to God: for me thinks the new Astronomie is thus appliable
well, that we which are a little earth, should rather move towards God, than that
he which is fulfilling, and can come no whither, should move towards us.34

Donne’s metaphor, here, is fundamentally analogical. The structural properties of the
Copernican theory, in this formulation, serve “to exemplifie, to illustrate mans misery,” but
Donne preemptively retreats from that possibility. As a result, the Copernican system qua
system can serve an exemplary function without any necessity that its description of the
physical form of the cosmos be the true one.35 The only criteria upon which the
comparison can be made are poetic and aesthetic—is the metaphor “appliable well” the
object to which it is compared? This use of analogic metaphor, in which the structure of
the Copernican hypothesis is wrenched out of context and redeployed to organize an
entirely different sort of relation, depends upon the astronomical criterion of “saving the
appearances” for its logic and effectiveness. The disjunction between mathematical
system and the natural phenomena that it predicts is implicit in this comparison.

To ascribe these long-term changes in the use of metaphor simply to arguments
over the practice of astronomy, however, would be to mistake a symptom for the
underlying cause. New representational practices contributed to and were the result of a
complex array of changing attitudes towards the natural world and the proliferation of

34 Coffin ed., Complete Poems and Selected Prose 390.
35 Compare the verse letter to Sir Henry Wotton in which he seizes on the contrast form
of medicinal therapy in Paracelsan and Galenic medicine, advising,

Onely’ in this one thing, be no Galenist. To make
Courts hot ambitions wholesome, do not take
A dramme of Countries dulnesse; do not adde
Correctives, but as chymiques, purge the bad. (lines 59-62)

Donne simultaneously declares his belief in Galen humoural theories, which suggest
corrective rebalancing of the humours, while adducing Paracelsian mineral methods as an
appropriate metaphor for purging the unwholesome effects of life at court.
new objects and phenomena during the seventeenth century, particularly in three
interlinked areas: new attention to and descriptions of material objects; the increasing
importance of methodical systems of organizing knowledge; and, mediating between
these two, the proliferation and increasing importance of instruments in the processes of
knowledge making.

As cultural historians in a variety of fields have noted, the overwhelming
profusion of new objects and materials that flooded Europe after the discovery of the
New World and the proto-colonial expansion of trade routes necessitated new methods
of attention to material objects, both formal and informal, in art, collecting, trade, and
consumption. In his recent account of early modern science and trade, Harold Cook
suggests that this obsessive interest in material objects grew up out of the complex
interaction of commerce, consumer culture, natural history, botany, medicine, and craft
practices in producing new knowledge. Donne’s interest in this new profusion of
*artificialia* and *naturalia* and his sensitivity to their particular qualities is demonstrated
most clearly in his metaphors, which are marked by close-grained attention to natural and
artificial objects. His use of metaphor is particularly curious, in all of the early modern
senses of the word: carefully circumstantial in attention and description. If, as Johnson
and Dryden claim, his conceits are metaphysical, those metaphysical comparisons depend
upon a cultural knowledge of and interest in the materiality of bodies and objects. In the
context of new modes of description and examination, metaphorical comparison of
objects with each other and with the underlying metaphysical structures of the universe

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begins to shift from the emblematic to the analogical as older forms of relation between objects come under increasing strain.

These new modes of interrogating individual objects are accompanied by new methods of organization and categorization. Donne was at once curious about and critical of the increasingly complicated attempts to organize the profusion of early modern knowledge. His suspicions turned on what he saw as the reductive tendencies of methodical systems in the face of the seemingly endless multiplicity of natural particulars. In the preface to his satirical *Catalogus Librorum* (c. 1606-10), Donne lumps together a series of very different methodical approaches, accusing them all of the same fault:

The middle, and therefore common, way to proceed in order to avoid both the shame of ignorance and the bother of reading, is to use one art in all things in order to seem to know all the rest. Thus, others delight in epitomes, paradoxes, and the stings of extravagant wits, and hence place a high value upon Ramon Lull, Gemma Frisius, Raimond Sebond, Sextus Empiricus, the Abbot Trithemius, Henry Cornelius Agrippa, Erasmus, Peter Ramus, and the heretical writers.37

This multiplicity of competing and contradictory strategies and authors, from skeptics, to occultists, rhetoricians, systematizers, epitomizers and satirists, all reduced the process of producing knowledge to singular, if different, procedures. The problem he identifies is not the fallibility of these methods of understanding, but the effects of their decision to

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constrain their approach to knowledge—such that they might seem to know all things—rather than tackling the plentitude of God’s creation.

Instruments play a vital role in this account, because they link together method and material objects. The titles of Bacon’s *Novum Organum* and its Aristotelian predecessor, the *Organon*, suggest the connection between method and instrument. Bacon deliberately adopted the title of Aristotle’s collected logical treatises (*Catagoriae, De Interpretatione, Analytica Priora and Posteriors, Topica and De Sophisticis Elenchis*) for his own new logic of scientific discovery. In doing so, he self-consciously set out to replace Aristotelian methods of producing knowledge with his own new “instrument.” Logic itself is an instrument of knowledge in this formulation. At the same time, instruments were not only a physical version of the methodical work they were created to assist, but also objects of curiosity—not only carefully examined and described so that they might be replicated, but often decorated such that they were art objects in their own right.

Optical devices, in this context, function as a synecdoche for the importance of instruments as a whole. As Svetlana Alpers suggested in her seminal book, *The Art of Describing* (1985), new conceptions of vision were central to the practices of Dutch art in the late sixteenth and early seventeenth centuries. The telescope and later, beyond the scope of this study, the microscope offered new ways of seeing the world. These

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changes, however, took place in the context of a deep communal familiarity with and attention to a variety of seeing devices, especially mirrors and spectacles, reflected in Donne’s descriptions—as we shall see in subsequent chapters.

We can see the effects of this relationship between metaphorical practice and instrument-based method most clearly in Donne’s “Valediction: Forbidding Mourning.” The metaphor of the compasses in the poem provides the classic example of the metaphysical conceit—and the central image for Marjorie Nicolson’s famous essay, “Breaking the Circle.” Nicolson makes a case that the transition from the perfect circles in Ptolemy and Copernicus’ systems to Kepler’s use of ellipses is part of a rupture in knowledge that is linked to the unwinding movements of the compass point described in the poem. This ‘breaking of the circle’ is, in her argument, symptomatic of the breakdown in older forms of knowledge at the beginning of the Scientific Revolution. Similarly, John Freccero’s analysis of the poem provides an exemplary instance of the conjunction of formalist method and historicist reading of astronomy. Focusing upon the final section of the poem, Freccero compares the oblique motion of the compass point with the motions of planets as observed in the night sky. He suggests that this erratic course provides a template for a human love that is neither perfectly circular—like angelic love—nor simply direct—like the love of animals. In doing so, both Nicolson and Freccero demonstrate the potential of Donne’s metaphorical conceits to accommodate parallels with early modern systems of astronomy.

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41 See, Nicolson, _Breaking the Circle_ (1960).
Implicit in the readings of Freccero, Nicolson, and other similar, astronomical readings of Donne’s poems is the relationship between the metaphorical conceit and the explanatory power of scientific analogy. As Mary Thomas Crane has argued, the figure of the compasses in Donne’s the “Valediction: Forbidding Mourning” emblematizes the relationship between the objects compared by analogy.  

While the trope of metaphor involves the transference of properties from one object to another, analogy functions primarily as a structural comparison, based upon proportional similarity. This sort of structural comparison recurs throughout the poem. The movement from embodiment to abstraction, beginning with the last breaths of those on their deathbeds, progressing to the inalterable heavens, completes itself in the image of the compasses. The “Valediction” both elevates and reduces the relation between lovers to the elegant oblique figures traced out by the movements of a pair of compasses. It is the justness of this figure—the sensitive subtlety and responsiveness of the legs of the compass to each other—that has drawn attention to this image.

The metaphor of the compasses, however, provides not only an image of connection between lovers, but also alludes to the methods of geometry and cartography that construct these connections. Donne’s poem does not describe a series of connections between lovers, but rather engages in a process of making connection, expanding each lover’s awareness of the other, “Like gold to ayery thinnesse beat” (line 24). While the image of the compasses connects two separate points on a map, it also alludes to the processes of plotting courses across those distances. These processes of navigation are dependent upon the ability to hold one foot of the compasses fixed, while the other traces

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an arc on the map. Were both to move or both to lie still, this work could not be performed. Only when these steps have finished can the pair of compasses be closed and set aside to lie together again. This nexus of metaphorical comparison, natural structure, material culture, and methodical work lies at the heart of Donne’s poetic practice, neither a breaking nor a completing of the circle, but rather a process of making relations and remaking knowledge in new forms.\footnote{The title of Terry Sherwood’s \textit{Fulfilling the Circle: A Study of John Donne’s Thought} (1984) sets the book in opposition to Nicolson’s \textit{Breaking the Circle} (1960), although it barely mentions Nicolson’s work. See also, Helen Wilcox, “Squaring the Circle: Metaphors of the Divine in the Work of John Donne and his Contemporaries” (1994); and Sarah Powrie, “The Infinite Sphere” (2006).}

This dissertation examines this remaking of knowledge by means of a series of different optical devices and methods of organization. In chapter one, “Moving the Earth and Drawing Down the Moon: Donne, Galileo, Kepler and the reception of Copernicus,” I discuss Donne’s reactions to the new telescopic discoveries via his satire of Galileo, Kepler and Copernicus in \textit{Ignatius His Conclave}. Focusing on what I call inventive reading—reading as a practice of gathering for composition—I draw parallels between scientific and rhetorical invention, suggesting that they involve similar processes of juxtaposition and combination. In this context, I argue that Donne’s representation of Galileo in \textit{Ignatius, his Conclave} is derived from a tradition of portraying Copernicus’ work in \textit{De revolutionibus} as “moving the earth,” and that this trope plays an important role in both criticism and the transmission of his ideas within the community of astronomers and amongst a wider public. I trace Donne’s mobilization of this image and suggest that his depiction of Galileo depends on a structural reading of the figure of Copernicus. Finally, I reconsider this mode of reading in relation to the practice of
reading the scientific content of literary texts through an analysis of Donne’s “The Sun Rising,” suggesting that in Donne’s work we can see not a logic, but a poetics of invention.

In chapter two, “Old Men’s Spectacles’: Innovation, Chronology and the History of Knowledge in Ignatius, his Conclave,” I set Donne’s scientific knowledge in its wider historical context by considering Donne’s own depiction of a series of canonical scientific figures. Donne’s satire of the Jesuits founds itself upon the accusation of innovation: Ignatius Loyola defends his place at Satan’s right hand, in opposition to the claims of Copernicus, Paracelsus, and Machiavelli, by virtue of the Jesuits’ having exceeded all comers as innovators. This argument about innovation is founded in a distinction between ancient and modern knowledge. By reading the satire in the context of histories of invention and innovation, contemporary work on chronology and history, and the euhemerist interpretation of myth, I recast our understanding of Donne’s conception of newness and new knowledge at a moment when knowledge was being remade in striking new ways.

In chapter three, “‘The world in peeces’: Grief, Anatomy, and Vision in ‘An Anatomy of the World,’” I consider Donne’s use of anatomy as a methodical structure in the First Anniversary—not just an organizing frame for the poem, but a particular process of making knowledge that distorts as well as reveals its object of examination. I explore the relationship between the embodied vision of the grief-stricken, the science of perspective, anatomical theatres and Donne’s organization of the poem. I use this to reconsider the use of astronomical material in the “Anatomy” and consider the parallels
between Donne’s depiction of the effects of astronomical work on the night sky and the violence done to bodies by the process of anatomy.

In my final chapter, “By circuit and collections to discern: the Trajectory of Progress and the Commemoration of Elizabeth Drury,” I examine the idea of progress in Donne’s “The Progress of the Soul.” At issue is the relationship between ceremonial processions—the royal progress, the triumph, funerary processions—and the improvement of knowledge for future generations. I examine Donne’s account of the unreliable basis of earthly knowledge and relate his critique of knowledge making, in the horrifying image of the “child made mummy,” and the poem’s commemorative ends. Drawing on the early modern use of travel narratives as a source of knowledge, I consider the attempt of the poem to approach heaven as a process that provides a pattern for the moral improvement of Donne’s readers. My aim throughout is to show Donne’s awareness of method and optical instruments as vital influences on changing understandings of the early modern cosmos, and the effects of these changes on metaphorical practice as a whole.
Chapter One: Moving the Earth and Drawing Down the Moon:

Donne, Galileo, Kepler and the reception of Copernicus

How does one depict astronomy in the aftermath of Galileo’s observations with the telescope? In 1611, John Donne chose to open his satire Ignatius, his Conclave with a description of the flight of the soul, a moment of poetic imagination framed as a dream vision:

I was in an Exstasie, and

My little wandering sportful Soule,

Ghest, and companion of my bodie

had liberty to wander through all places, and to survey and reckon all the roomes, and all the volumes of the heavens, and to comprehend the situation, the dimensions, the nature, the people, and the policy, both of the swimming Ilands, the planets, and of all those which are fixed in the firmament.45

Written after Galileo’s observations of the moon and the discovery of the so-called Medicean stars, this astronomical panorama, with its limitless opportunities for the observation of the heavens, suggests the new access to the heavens provided by the telescope. Like other dream visions, it also recalls the imaginative achievement of Copernican astronomy: the re-imagining of the universe as seen from the surface of the sun. Copernicus argues in the De revolutionibus Orbis Coelestium (1543) that, seen from this perspective, the apparently erratic movements of the planets and the fixed stars resolve themselves into regular circular orbits. In doing so, he attacks both the central

place of the earth in Aristotelian cosmology and, perhaps more fundamentally, the
disjunction between astronomy, mathematical models of the heavens which “saved the
appearances,” and natural philosophy, which described the form of the cosmos from
causal principles.

The dream vision and other forms of cosmic voyages have a central place in
accounts both of the Scientific Revolution and of literary reactions to the supposed
epistemic break that resulted from Copernicus’s act of imaginative reconceptualization.
Although Galileo’s *Sidereus nuncius* provoked profound interest in the possibility of a
populated heavens, it was Johannes Kepler’s *Somnium*—written in 1609, but annotated
from 1620 onwards, and only published post-humously in 1634—that appears as the
predecessor of works like Godwin’s *Man in the Moon* and Cyrano de Bergerac’s *Empires et
Estats de la Lune*.\(^4\) Literary criticism of Kepler’s *Somnium* has, as a result, focused on the
fictive qualities of the work and its relationship with the faculty of imagination.\(^5\) This
emphasis upon the importance of fictive literature and imaginative dislocation has been

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central to critical appraisals of the astronomical content of Donne’s poetry.\textsuperscript{48} The transformation of the heavens is inherent in Donne’s depiction of the flight of the soul in *Ignatius, his Conclave*, which enacts a similar act of destabilization of the hierarchy described by conventional Ptolemaic astronomy and Aristotelian natural philosophy. Like Kepler’s *Somnium*, Donne’s description of the wandering and fixed stars which might possess not only “situation,...dimensions, ...[and] nature” but also “people, and...policy” suggests Galileo’s observations with the telescope as well as the wider transformation in speculative understanding of the heavens.

But it is at precisely this point in *Ignatius, his Conclave* that Donne turns away from the stars. The narrator rejects the opportunity to examine the heavens in favour of the rights of a pair of earth-bound astronomers:

> Of which, I thinke it an honester part as yet to be silent, then to do Galilaeo wrong by speaking of it, who of late hath summond the other worlds, the Stars to come neerer to him, and give him account of themselves. Or to Keppler, who (as himselfe testifies of himselfe) ever since Tycho Braches death, hath received it into his care, that no new thing should be done in heaven without his knowledge. For by the law, Prevention must take place; and therefore what they have found and discovred first, I am content they speake and utter first. (7)

The authority of Galileo and Kepler results from their ability to master the heavens not with their imagination, but from the use of instruments and methodical observation. These are not acts of exploration and discovery, but of regal mastery. These descriptions

establish Galileo and Kepler as the foremost contemporary astronomers at the same time as Donne mocks their own claims of authority. By describing Galileo as having “summond the other worlds, the Stars to come neerer to him, and give him account of themselves,” Donne brings together the magnifying power of the telescope and the title of Galileo’s book, the *Sidereus nuncius*, to create an image of a Galileo as a ruler of the heavens—one who is able to interrogate the heavens more closely, discovering information which had previously been unavailable, by summoning the stars themselves to report to him. Donne’s construction of Galileo’s activities implicitly admits the authority that Galileo had gathered to himself on account of his priority of publication. It was this, as well as his monopoly over the distribution of powerful telescopes, which temporarily gave him the ability to control access to this privileged means of observation, and thus to some degree the reception of his work.49

Similarly, Donne’s brief portrayal of Kepler in the same passage draws upon the tradition of astronomical authority. In Kepler’s case that authority is an inheritance from Tycho Brahe, rather than the result of his own labours. As with Galileo, Donne mockingly ‘refuses’ to do injustice “to Keppler, who (as himselfe testifies of himselfe) ever since Tycho Braches death, hath received it into his care, that no new thing should be done in heaven without his knowledge” (7). This parody of Kepler’s methods and interests draws the italicized quotation from Kepler’s *De stella nova* (1606), making it “testif[y]” to Kepler’s immodest claim of celestial sovereignty by the selective omission of *fortasse* (“perhaps”).50 This insistence on the connection between Kepler’s work and novelty

suggests a number of important links: first, it is connected to his own description of the
new star in *De stella nova*, itself a genre of investigation inherited from Brahe, who had
written on the comet of 1572; second, it suggests Kepler’s response to Galileo’s work, the
*Dissertatio cum nuntio sidereo*. The claims of priority in both these books are transformed
into a liability by Donne’s satirical use of Kepler’s own words taken out of context.

Donne’s descriptions of Galileo and Kepler are part of his wider satire of
innovation in *Ignatius, his Conclave*. Both the exaggerated description of the effects of the
telescope and Kepler’s claims of comprehensive knowledge transform these ascriptions of
authority into absurdities. In doing so, however, Donne relies upon his ability to
understand both the matter and means of expression common in astronomical texts.
Donne’s depiction of Galileo’s ability to summon the stars is exemplary of this deftness,
because Galileo himself made use of a similar image to mock those who opposed his
claims. Writing to Benedetto Castelli, Galileo remarks, “Well then, don’t you know that
to convince the obstinate who care only for the empty applause of the stupid and dull
crowd, the testimony of the stars themselves, come down to the earth to discuss
themselves, would not suffice.” There is no evidence that Galileo’s remark was known to
Donne. Rather, their use of a similar trope suggests that Donne and Galileo were
drawing upon a common construction of astronomical practice, in which an ability to
predict the movement of the stars was transformed into an ability to control their
movements, as is apparent when Galileo later reuses this satirical trope in his *Dialogue on
the Two Chief World Systems*. At the beginning of the Third Day Sagredo asks “Now,

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Salviati, what have you to say in regard to these stars? Have they really been drawn down from the heavens into these baser regions by the calculations of this author which Simplicio has produced? This use of the same representations of astronomical prowess suggest Donne and Galileo’s shared sense of the satirical possibilities of this common depiction of astronomers. Both Donne’s depiction of Galileo’s discoveries with the telescope and Galileo’s mockery of his naysayers present a critique of astronomical knowledge as disjunctive vision, one in which objects are decontextualized, brought down to earth from the heavens, so that they may be examined. In doing so, they demonstrate the malleability and transferability of the figures and sententiae which were used to depict astronomical practice. Like the stars seen through the telescope, written matter could be drawn out of the texts in which it appeared, in order to be examined and placed in new contexts to make new meanings.

In this chapter, I consider Donne’s allegorized representations of three canonical innovative astronomers—Galileo, Kepler and Copernicus—in the context of the inventive depiction of astronomical activity during the sixteenth and seventeenth centuries. I use Donne’s depiction as the focus for a reconsideration of a group of familiar astronomical intertexts—Copernicus’s De Revolutionibus, Galileo’s Sidereus nuncius and Kepler’s Astronomia nova, Dissertatio cum nuntio sidereo, and Somnium—and the subsequent reuse of their contents. I argue that Donne’s satirical representation of these astronomers allegorizes the displacements of vision and motion—the “drawing down the moon” and “moving the earth”—which were central to the so-called New Astronomy.

53 298. “Ora, che dice il signor Salviati in proposito di tali stelle? son ellen veramente state traporate di cielo in queste più basse regioni in virtù de’ calcoli dell’autore prodotto dal signor Simplicio?”
These reconfigurations of understanding, imagining the universe seen from the Sun or from the surface of the Moon, have a canonical place in the history of astronomy, but that history neglects the contradictory processes of representation involved in this shift. In particular, attention to the use of allegorical dream visions has overlooked the importance of their interaction with earth-bound observation. I reconsider Donne’s allegorical use of astronomical knowledge not as an exploration but as a process of observation and compilation. I examine his practices of rhetorical invention and suggest that during the Early Modern period scientific texts were subject to processes of inventive reading as well as more familiar processes of interpretation. In doing so, I redirect attention from the traditional question of how scientific knowledge was understood by writers to how it was reused in literary works. Moreover, instead of considering literary activity as merely parasitic upon the scientific production of knowledge, I focus upon the common processes of selecting and organizing material which suggests the artificiality of the division between these sorts of writing, particularly in the Early Modern period.

Using this conceptual framework, I follow the use and reuse of an interrelated set of scientific and literary tropes in works by Donne and other writers, including Tycho Brahe, Kepler and Galileo. Rather than simply contextualizing them as a network of allusive reference, I concentrate my attention on the inventive practice which underlies their production—the methods of reading, gathering, and recombination that produce similar depictions in different circumstances. I begin with an account of inventive reading, and examine Kepler’s accusations of plagiarism by Donne as an example of contemporary conceptions of this process. Next, I turn to the conventional sixteenth-century depictions of astronomers as Atlas, and I set these processes of representation in
the context of the Copernican debates about the movement of the earth. I argue that
Copernicus’s reconception of the order of the cosmos itself becomes a site of allegorical
reconception, in which different forms of movement are used as substitutes for each other
in attempts to evade or emphasize the motion of the earth, all of which draw upon the
figure of Atlas as a metaphor for the practice of astronomy. In this context, I examine
Galileo’s observations with the telescope and his work on emblems for the Medici circle
in comparison to Donne and Kepler’s differing receptions of the *Sidereus nuncius*. Finally,
I turn to Donne’s poetry and consider invention and its relation to the critical practice of
the identification of scientific tropes in literary works, focusing in particular upon “The
Sunne Rising” as an exemplary site for the discovery of scientific matter.

**Inventive Reading and Representation**

During the Early Modern period, the practice of invention had several different
meanings. Treatises on inventions and inventors, such as Polydore Vergil’s *De
Inventoribus Rerum*, used the derivatives of the Latin verb *invenire* to encompass the
related meanings of the term invention, as both something devised and something found
or discovered.54 On one hand, the material for invention was found in nature; on the
other hand, invention was the product of human art. This equivocal sense of parallel acts
of finding and making involved in producing new devices is evident in the invention of
the device which allowed Galileo’s discoveries in the heavens: the telescope.

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54 On the differing senses of the Latin *invenire*, see Copenhaver, “Introduction,” in
Polydore Vergil, *On Discovery* (2002) x-xii. On Vergil and the *De Inventoribus Rerum*, see
Hay, *Polydore Vergil* (1952) 52-78.
The telescope invented in the Netherlands in 1608 consisted of a convex and a concave lens joined together by a tube.\(^{55}\) While the device itself was new, the lenses were not specially made, but rather had been the stock in trade of spectacle makers for over a hundred years. However, while the necessary materials had long been available, they had not been appropriately combined.\(^{56}\) The fortuitousness of this discovery lay in the seeming appropriateness with which the lenses fit together, as if made for that purpose. Yet this initial invention was also capable of being improved by human ingenuity. After its invention, simple six-power versions of the telescope—the best that could be made with the lenses used by spectacle makers—quickly became available at fairs across Northern Europe. When word of the new device reached Galileo, probably via his friend Paolo Sarpi, he was able to replicate and improve it without seeing an original. Galileo’s improvements, moreover, reinvented the telescope, transforming it from a mere novelty into a powerful instrument, first for maritime domination, then for surveying the heavens. As a result, the telescope became emblematic of powerful, and sometimes faulty, acts of perception—both in itself and as a medium for innovative new accounts of heavens. Thus, Kepler’s apostrophe to the invention in his *Dioptrice* (1611): “O telescope,

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\(^{55}\) It is anachronistic to call this device a telescope, at least until 1611 when it was first described as such. Galileo, in the *Sidereus*, describes the device as a *perspecillum*, on the title page, and later as an *ochiale*. In English, the device was referred to as a glass or, later, spyglass, and, in French, as a *lunette*. See Rosen, *The Naming of the Telescope* (1947); Galileo, *Sidereus nuncius or the Sidereal Messenger*, ed. and trans. Albert Van Helden (1989); Albert Van Helden *The Invention of the Telescope* (1977); and Reeves *Galileo’s Glassworks* (2008).

\(^{56}\) The early telescopes used the combination of a convex and a concave lens, while later ones were built with two convex lenses, see Van Helden, “Introduction” *Sidereus nuncius or Sidereal Messenger* (1989) 1-4. See also, Eileen Reeves, *Galileo’s Glassworks* (2008).
instrument of much knowledge, more precious than any sceptre! Is not he who holds thee in his hand made king and lord of the works of God?”

It was the telescope’s ability to allow observers to see distant objects more closely which provoked such praises. Sir Henry Wotton’s letter from Venice, reporting the publication of the Sidereus, describes Galileo’s as-yet-unnamed telescope as “an optical instrument (which enlargeth and approximateth the object) invented first in Flanders, and bettered by himself” (Smith 1:486). Wotton’s description bears witness to the dramatic ability of the telescope to make faraway objects seem nearby—as opposed to the ability of lenses and some mirrors to enlarge objects—by his coining of the term “approximateth” to describe this “drawing close.” Wotton’s portrayal of the telescope’s power not only to enlarge objects, but also to bring them closer depends for its formulation upon Galileo’s description of the properties of the telescope at the beginning of the Sidereus. There, he instructs his readers how to determine the magnifying power of the device by comparing squares of different sizes drawn upon the same surface, one seen through the telescope and one seen with the naked eye. In doing so, he divides the effects of the telescope into how much proportionally closer and how many times larger the

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57 Quoted in Campbell, Wonder and Science (1999) 123.
58 Wotton’s use of “approximateth” is the earliest use of the term in English that I have been able to identify. In this sense, rather than the much later mathematical sense, “approximate” is first cited in the OED as having been used by Sir Thomas Browne in (1646), and appears in contemporary works such as William Bagwell’s The Mystery of Astronomy (1655). In Latin, approximare does not appear in the classical corpus, and only very seven times in the Patrologia Latina, in the context of drawing near to or approaching a holy object. It seems likely that this latter use was the source for Wotton’s coinage because Galileo does not use the Latin approximare in the Sidereus nuncius.
object viewed appears, even though these changes in appearance are consequences of each other.\textsuperscript{59}

The ability of the telescope to bring the bodies in the heavens closer provides an example of and a metaphor for rhetorical rather than technical invention, in which scientific matter is drawn from texts and used for what we might describe as literary purposes. Galileo’s \textit{Sidereus nuncius} provides a striking example of this process. From the moment of its publication in 1610, this text was subject to contested readings. Readers argued over the discoveries in the heavens recounted in the book, and over Galileo’s methods of interpretation and observation, particularly his use of the telescope. These readers had one mistake in common: they read the book’s title as the \textit{Starry} (or \textit{Sidereal}) \textit{Messenger}, when it seems that Galileo, at least initially, intended the title to be read as the \textit{Starry Message}.\textsuperscript{60} However, as the full title of Kepler’s \textit{Dissertatio cum nuntio sidereo recens...}, the “Conversation with the Sidereal Messenger recently sent to Mankind,” makes clear, Galileo’s use of the masculine \textit{nuncius} instead of the neuter \textit{nuntium} led his readers to read “messenger” rather than the “message”—an interpretation which persisted into the twentieth century. This mistake has, symbolically, come to stand for the early responses to Galileo and their ‘misunderstanding’ of his discoveries.\textsuperscript{61} This reading of the title, however, can also be usefully understood as the result of a focus on the unprecedented ‘approximating’ powers of the telescope.\textsuperscript{62} It suggests a collective understanding on the part of Galileo’s audience that the title was intended allegorically,

\textsuperscript{59} The enlargement is the square of the proportional reduction of distance, because it is an area (\textit{Sidereus nuncius} 38–9).


\textsuperscript{61} See Rosen, “The Title of the \textit{Sidereus nuncius}” (1947).

because of its consonance with the ability of the telescope to bring distant objects nearer. In other words, the title constituted a claim by Galileo to be able to summon “starry messengers” from the sky. In doing so, Galileo’s readers were attending to the rhetorical rather than scientific matter of his texts.

Rhetorical invention was understood as a similar process of invention and discovery. Renaissance rhetorical practices of invention were descended from the related practices of dialectical and rhetorical inventio described in classical authorities such as Aristotle’s *Topics*, Cicero’s *Topica*, and Quintillian’s *Institutio oratoria*. The methods outlined in these works are primarily concerned with the different “seats” of argument, but the practice also came to include the more general process of gathering material—style, form, argument, allusion and quotation—to provide copia, copiousness or variety, in composition. Inventive reading encompasses the diverse set of practices associated with humanism, some material—methods of marginal annotation, commonplacing and digestion—and some conceptual—practices of organization, reference and allusion. Together, these practices form a method for the rapid dissection, preservation and redeployment of texts, one which treated the argument as only another aspect of the text to be recorded for future use.63

Ann Blair refers to this associated set of practices for knowledge-gathering as “the method of commonplaces” (541), suggesting the central importance of methodical activity and its material embodiment, the commonplace book. Inventive reading, on the other hand, was a practice that emphasized the proleptic and combinatoric character of

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this activity. While inventive reading could be directed towards a particular purpose at hand, it was often a practice of preparation for undefined future writing. The reader aimed to gather—in one of the conventional metaphors for memory—a storehouse or inventory, which could be drawn upon for support. Understood in this way, the identification of material by marginalia and the practice of storing those materials in notes or in a commonplace book depended upon the ability to read with an eye to their application—to identify rhetorical tropes, imagery, authorities and so on, that would be useful in the future. Its purpose was to find structures and matter for writing and, as a result, the intentions of the author of the work were a secondary consideration. Priority was placed, instead, upon the pragmatic question of how the material gathered and stored for future use might be applied. Reading in this manner not only potentially stripped material out of its original context, it also recontextualized that material in the process of placing it in a commonplace book, amongst other matter gathered in the same way. The medium of the commonplace book thus encouraged intertextual reading as a mode of understanding in which different texts were read as a repository of both form and content.

Yet, inventive reading did not preclude interpretative reading; rather, these two activities often occurred side by side, especially in the humanist mode of reading with pen

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64 See Lisa Jardine and Anthony Grafton, “‘Studied for Action’: How Gabriel Harvey Read his Livy” (1990).
in hand. Bacon, in the *Advancement of Learning*, suggests the mutually supportive roles of these two methods when he writes, “I hold that the diligence and pains in collecting commonplaces, is of great use and certainty in studying; as that which subministers copy to invention; and contracts the sight of judgement to a strength.” Bacon’s emphasis upon the *copia*, which the practice of commonplacing gathers to support the act of invention, is coupled with his visual metaphor, by which judgment is portrayed as focused more strongly upon its object by the accumulation of *comparanda*.

As a result, the processes of quotation, allusion, and citation in Renaissance texts should be understood not merely as backward-looking, gesturing towards the origins of the material mobilized in the text. Commonplacing also looked forward towards future processes of use: texts did not only display, openly or coyly, the process of dissection and reuse upon which they were founded; they also offered their own bodies to the reader for use by the same methods. Texts used markers, such as printed fists in margins or quotation marks, to indicate *sententiae* for gathering by the reader, and at the same time they also placed citations in the margins or in texts to indicate their sources. Indeed, the markers of citation can be read doubly, both as an attribution to a source and as a mark of a sentence worth collecting, because the author has previously done so. Inventive reading thus emphasizes forms and tropes that offer purchase for future composition. To read with this emphasis in mind frees interpretation from the need to show allusive connection. It allows us to alight upon and consider passages in which authors who may be unaware of each other’s work have produced similar transformations of source material based upon a shared method which emphasizes the combinatoric possibilities encoded in

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the formal structures not only of literary work, but of all the arts and sciences. As Samuel Johnson suggests, in Donne’s metaphysical conceits, the act of poesis, of making, involved the yoking together the “most heterogeneous ideas” as “nature and art are ransacked for illustrations, comparison, and allusions.”

The scale of methodical practice that enabled Donne’s compositions is suggested by the accounts of the notes he had compiled by the end of his life. Walton recounts, “his Sermon-Notes, and his other Papers, contain[ed] an Extract of near Fifteen hundred Authors, most of them abridged and analyzed with his own hand” (62). These were further supplemented by another set of notes, which were particularly appropriate to the gossipy nature of many of the accusations in Ignatius, his Conclave:

Nor were these onely found in his study; but all businesses that past of any publick consequence, either in this, or any of our neighbor nations, he abbreviated either in Latine, or in the Language of that Nation, and kept them by him for useful memorials. So he did the copies of divers Letters and cases of Conscience that had concerned his friends, with his observations and solutions of them; and, divers other businesses of importance; all particularly and methodically digested by himself. (Walton 62-63)

This image of Donne as a methodical, omnivorous consumer and digester of information is perhaps best exemplified by the Paradoxes and Problems. These short pieces deploy conventional arguments to prove the contrary of received opinion. To do so, Donne makes use of his rhetorical and legal training, with its practice of arguing in utramque

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partem, drawing material out of his store of knowledge and redeploying it in service of his argument—just as others made use of his own work in turn.70

Donne emphasizes the keenness and ferocity with which he exploits the character of the commonplace book in a letter to Sir Henry Goodyer, where he writes, “I pray you read these two problemes,” he writes, “for such light flashes as these have been my hawkings in my Surry journies.”71 Donne’s metaphor suggests the violence inherent in his juxtaposition of the material from classical myth, moral and philosophical sententiae, poetry, and history, which are yoked together in service of his poetic aims. This attitude stands in stark contrast to the more common metaphors of bees gathering nectar or of picking the flowers of rhetoric, in the Senecan locus classicus for commonplacing techniques. Donne emphasizes the transformative effects of an inventive process. He takes advantage of fact that the fragmented items in the commonplace book are “supremely tolerant of cognitive dissonance” (Blair 548) to produce texts that thrive in the soil of this disjunctive collection of writing. Thomas Carew takes up the theme of horticultural improvement in his elegy for Donne, where he marks the contrast between “The lazie seeds / Of servile imitation” which should be “throwne away” and the “fresh invention planted,” by Donne, in their place.72

Both Ignatius, his Conclave and the Anniversaries are markedly the product of Donne’s intensive note-taking practices. In these texts there is a sense that at times

Donne’s argument is overwhelmed by the material that he mobilizes. Critical reaction to

71 Donne, Letters to Some Persons of Honour (1651) 88. On this image, see my article “Donne’s Hawkings” (2009).
72 Thomas Carew, “An Elegie upon the death of the Deane of Pauls, Dr. Iohn Donne: By Mr. Tho. Carie” qtd. in Smith, John Donne: The Critical Heritage 94.
the *Anniversaries*, in particular, is conditioned by this attitude. The breadth and quantity of material drawn upon provokes reactions such as that of Richard Wollman, who claims “*The Anniversaries* are the index and dictionary of all of Donne’s poetry, a compendium of his verse that gathers his conceits from the *Songs and Sonnets* and harnesses them into a single work.” A similar compression of reference is apparent in *Ignatius, his Conclave*, which is marked by the profusion of material used to assault the reputation of the Jesuit order—all the more so, if we accept T. S. Healy’s plausible contention that it was this text, not the more closely argued *Pseudo-Martyr*, that was composed within the span of six weeks during 1610. The treatise switches between dream narrative and dialogue form, both drawn from the tropes of Menippean satire, the works of Lucian in particular. The innovators who appear in this dream seem unable to contain themselves, pouring forth detailed and seemingly exhaustive catalogues of their misdeeds, all crafted to show themselves in the worst light. Indeed, the very quantity of material that Ignatius deploys in his own defense, rather than the force of his arguments, overwhelms his opposition, particularly in his lengthy response to Machiavelli.

These works, however, have been traditionally understood in terms of the interpretation of their content. Readings of the *Ignatius, his Conclave* in the context of Donne’s involvement in early seventeenth-century controversy, as an example of Menippean Satire or of keyed allegory, have focused attention on the meaning of

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75 The narrator remarks, “Truely I thought this Oration of *Ignatius* very long: and I began to thinke of my body which I had so long abandoned, least it should putrifie, or grow mouldy, or bee buried; yet I was loath to leave the stage, till I saw the play ended” (63).
Donne's text and the interpretative practices that might disclose that meaning. These methods of investigation are of limited relevance to an assessment of the place of astronomy in *Ignatius, his Conclave*, because as a subject it is peripheral to the central concerns of the text. While *Ignatius, his Conclave* was written directly after the publication of the *Sidereus nuncius*, Donne’s depiction of astronomy in the satire depends primarily upon the reception of the much older *De revolutionibus orbium coelestium* (1543), and even Copernicus, one of Donne’s innovators, is subordinate to the importance of Ignatius and the Society of Jesus. Galileo, the focus of contemporary interest for his observations, appears as a figure outside the set-piece dialogues that form the structure of Donne’s text—as one of the heirs to Copernicus at the beginning of the text and as the method by which Lucifer offers the moon to the Jesuits near the end. Like many of the texts and persons depicted in *Ignatius, his Conclave*, Donne’s references to astronomy and astronomers are only part of the copious examples and citations that he uses to provide the matter for his satire. It is this mode of reading that, I suggest, is most productive in considering Donne’s contact with scientific texts because his reuse of them is often indifferent to his own belief in the truth of their arguments.

This ability to deploy material while holding judgment in abeyance appears most strikingly at the conclusion to Ignatius’ reply to Copernicus. He condemns him, claiming, “Besides, this detracts from the dignity of your learning, and derogates from your right

and title of coming to this place, that those opinions of yours may very well be true” (17).

This attack, which Donne places in the mouth of Ignatius, points to the struggles over the interpretation of Copernicus’s work on the movement and nature of the heavens. Two separate sorts of interpretation were in dispute in the reception of Copernicus during the period between the publication of the *De revolutionibus* and the trial of Galileo: interpretation of the “book of nature” and interpretation of scripture. The reciprocal reading of these two books—the book of nature as the word of God, and scripture as a source for natural philosophical knowledge—was central to discussions in natural philosophy. Moreover, in the case of Copernicus, this conflict turned around discussions not only of how these two complementary texts were interpreted, but over who had the authority to interpret them. Thus, while philosophers and astronomers disputed the status of their respective disciplines in interpreting nature, theologians argued over the differing methods of interpreting the scripture.\(^7\) The importance of arguments about interpretation in the reception of Copernicus, however, obscures other modes in which these texts were read. Similarly, to emphasize the practice of invention in reading Donne’s work reconfigures his interaction with scientific texts from a practice of interpretation into one which treats texts as material for subsequent reuse in composition.

Two of Johannes Kepler’s works, the *Somnium* and the *Dissertatio cum nuntio sidereo*, offer ideal places for the consideration of inventive practice—in relation to *Ignatius, his Conclave*, to the *Sidereus nuncius*, and more widely. Kepler’s *Somnium* has long been associated with Donne’s *Ignatius, his Conclave*, because—as Marjorie Nicolson

first pointed out—Kepler mentions that text in one of his footnotes to the printed edition:

I suppose a copy of this little work fell into the hands of the author of the bold satire entitled *Ignatius His Conclave*, for he stings me by name at the very outset.

Later on he brings poor Copernicus to Pluto’s court, which is entered, unless I am mistaken, through the chasms of Hekla.  

Kepler’s claim that the author of the anonymous Latin *Conclave Ignatii* must have read the *Somnium* manuscript attracted the attention of Nicolson and other writers. However, as T. S. Healy notes in his edition, both the chronology of production and its restriction to manuscript circulation make it highly unlikely that Donne read an early version of Kepler’s *Somnium* before composing *Ignatius, his Conclave*. As a result, discussion of *Ignatius, his Conclave* and the *Somnium* as intertexts has largely been abandoned. As we shall see in Chapter 2, *Ignatius, his Conclave* does depend on Kepler’s work for its argument, though not on his *Somnium* but rather on the *De stella nova*. For now, however, I want to take Kepler’s claim at face value, and ask what assumptions about the practice of inventive reading led Kepler to identify Donne’s work as derivative of his own?

We do not have a definite date for Kepler’s identification of *Ignatius, his Conclave*. While Kepler claims to have composed the first version of the *Somnium* in 1609—itself

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based upon an earlier idea that dates to 1599—the work was only published posthumously in 1634. However, between 1620 and 1630, the text underwent a radical transformation when Kepler composed the notes explaining the fiction.\textsuperscript{80} It is here that the *Somnium* intersects with Donne’s text. Running to many times the length of the dream vision itself, Kepler’s notes work to disambiguate the meaning of the *Somnium*, dividing the fictive material from the astronomical calculations upon which he based his description of the moon. Indeed, as an account of the practice of invention during the Early Modern period, Kepler’s notes to the *Somnium* are unparalleled.

The narrative framing of the *Somnium* emphasizes the complexity of this process. Kepler uses Lucian’s *Somnium*, and his moon voyages, *The True History* and *Icaromenippus*, as templates for his elaborately framed dream vision. Each frame, however, emphasizes a different form of material. The outermost frame introduces Kepler’s dream in terms of his contextual reading:

In the year 1608 there was a heated quarrel between the Emperor Rudolph and his brother, the Archduke Matthias. Their actions universally recalled precedents found in Bohemian history. Stimulated by the widespread public interest, I turned my attention to reading about Bohemia, and came upon the story of the heroine Libussa, renowned for her skill in magic. It happened one night that after watching the stars and the moon, I went to bed and fell into a very deep sleep. In my sleep I seemed to be reading a book brought from the fair. Its contents were as follows. (11)

\textsuperscript{80} This disjunction between initial composition and publication leaves open the question of when exactly Kepler read Donne’s *Conclave Ignatii* and how much time passed before he composed the early note that mentions it.
Kepler situates the dream in relation to an intertextual reading, both of the political events of 1608 and of written history. This impetus to historical reading directs Kepler’s attention to the witch Libussa, who functions as a source for the witch Fiolxhilde in the dream. This reading, experienced in the context of astronomical observation, provokes a dream—a fictive account—which frames itself as an act of reading, particularly the reading of a book brought, presumably, from the Frankfurt book fair.

The dream of reading this book is the account of the early life and education of Duracotus—a figure who acts as a stand-in for Kepler. Brought up in Iceland by his mother, the witch, Fiolxhilde, Duracotus is sold to a sea captain and, as result, ends up in service to the astronomer Tycho Brahe. The description of Duracotus’ five years of training with Tycho Brahe at Uraniborg, on the island of Hven, establishes the importance in the narrative of specialized sites of observation. Uraniborg was specially constructed by Tycho as an ideal observatory, and in his publications—printed on Uraniborg’s own press—it was depicted as a sort of astronomical utopia. Kepler’s dream vision implicitly contrasts Duracotus’ experience of the painstaking observations conducted in the observatory in Uraniborg with the information gained in conversation with the daemon summoned by Fiolxhilde. Duracotus notes that he “was delighted beyond measure by the astronomical activities, for Brahe and his students watched the moon and the stars all night with marvelous instruments. (27) This practice reminded

[him] of [his] mother, because she, too, used to commune with the moon constantly (28).”

Fiolxhilde’s conversations with the daemon are also observations, though ones which take place under the cover of a blanket—a process that Kepler compares in his notes to an improvised camera obscura. These conversations make up the central narrative of the dream vision. In them, the daemon describes the process of travel between the earth and the moon, the inhabitants of “Levania,” and the geography and customs of this new world. Kepler intended this work as an adjunct to Copernicus’s hypothesis. Like the De revolutionibus, it depicts the appearance of earth as observed from a new site, such that celestial phenomena appear radically different. The lives of the people of the moon are ordered by the observations of “Volva,” as they call the turning planet that hangs in the sky above them. In doing so, Kepler deliberately re-performs Copernicus’s act of reconceptualization, by which an act of imagined observation transforms the Earth from the stable center of the cosmos into one of the wandering stars, known as planets. As he explains in one of the notes, “The purpose of [the] Dream

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82 Kepler’s notes. In note 28 of his Somnium, and Kepler adduces Virgil’s verse “Spells can bring down even the moon from heaven” (Eclogues 8.69) and his reading of Martin del Rio’s Investigations of Magic (p. 47–8) as support for this practice of communing with the moon.

83 “Whenever men or women came together to watch me, first, while they were engaged in conversation, I used to hide myself from them in a nearby corner of the house, which had been chosen for this demonstration. I cut out the daylight, constructed a tiny window out of a very small opening, and hung a white sheet on the wall. Having finished these preparations, I called in the spectators. These were my ceremonies, these my rites. Do you want characters too? In capital letters I wrote with chalk on a black board what I thought suited the spectators. The shape of the letters was backwards (behold the magical rite), as Hebrew is written. I hung this board with the letters upside down in the open air outside in the sunshine. As a result, what I had written was projected right side up on the white wall within. If a breeze disturbed the board outside, the letters wiggled to and fro on the wall in an irregular motion” (57).
is to use the example of the moon to build up an argument in favor of the motion of the earth” (36). Where the outer frames of the dream vision function, in part, as an allegory for the birth of Science from Ignorance and Reason,\(^4\) the central section provides a narrative structure for a series of astronomical details.

In his notes, however, Kepler demonstrates in detail the diverse sources of his invention in the *Somnium*. These range from Lucian’s *True History* to the sign in a shop which suggested the name *Fiolxhilde* to him (30-36). As he recounts in his second note, Kepler’s central source for the *Somnium* was Plutarch’s *Face in the Moon*, but he is careful to distinguish this model from his own work, noting “with my quite reliable memory I recall the origins of the individual parts of my tale, because they did not all come to me from reading this book” (32). This associative process, by which these different sources were connected, is suggested by a number of Kepler’s examples. For instance, he notes a particular copy of the *True History*, which was bound together with a number of other works: St. Brendan’s Voyage and *St. Patrick’s Purgatory* (34). The binding together of these different travel narratives suggests the intertextuality of inventive reading, in which the juxtaposition of material forms provides an opportunity for new meanings. Similarly, Kepler recounts his construction of the name *Fiolxhilde* from the word *Fiolx*, used to refer to several places in Iceland on a “very old map of Europe” in a house lent to him by the Chancellor of Prague University, and the German suffix *-hilde*, which he uses to transform the word into a female name (35-6). The very circumstantiality of his account emphasizes the textual basis of even the slightest details that he used to build up the *Somnium*.

\(^4\) See 36 n4; 43 n10.
Kepler’s detailed enumeration of the sources of the *Somnium*, and acknowledgment of their oblique influence upon the text, suggests that he read Donne’s densely packed *Conclave Ignatii* as having been constructed in the same manner. The general sense of parallel between the two texts probably results from their mutual dependence on the tradition of dream visions and Menippean satire, especially Lucian of Samosata’s *Somnium* with its frame dream, and his *True History* and *Icaromenippus*, with their depictions of moon voyages.\(^{85}\)

Lucian’s works not only provide a framework for Donne and Kepler: they also offer a model for inventive practice and a texture for the resulting writing.\(^{86}\) Lucian’s work is densely referential, full of compressed allusions to literary and philosophical


sources.\textsuperscript{87} It is, however, the form of the dream vision that most closely ties these works together. Where Kepler’s elaborately nested narratives complicate the dream vision, Donne’s debt to Lucian’s \textit{Somnium} is partly structural, as when he marks off the entrance to the dream vision with a short poetic quote.\textsuperscript{88} However, both texts are studded with so many similar details that it is difficult not to draw parallels between them—like Kepler’s equation of Mount Hekla, in his text, with Hell, in Donne’s.

Yet, this effect is a testament to the two writer’s dependence on humanist methods of reuse, a shared corpus of classical texts, and a mutual understanding of the genre of Menippean satire. Where the \textit{Somnium} shows Kepler’s ability to interweave literary and scientific materials to create the fictive form of his dream vision, his reply to the \textit{Sidereus nuncius} demonstrates the same practices used to produce hypotheses about the nature and movement of the heavens. The \textit{Dissertatio cum nuntio sidereo}, or \textit{Conversation with the Starry Messenger}, was an open letter to Galileo, later printed, in which Kepler offered what is usually described as the most important early positive response to Galileo’s observations. There remains, however, a discomfort with the tone of the \textit{Dissertatio}, and in particular with Kepler’s method of reading Galileo’s text. The \textit{Dissertatio} consistently places the \textit{Sidereus nuncius} in the context of other works, and Kepler’s writing in particular. Kepler draws attention to works which seem to anticipate Galileo’s discoveries, a tactic that, despite the lavish praise for Galileo’s achievement, seems to arrogate to Kepler the prestige of conceiving these ideas, if not the prestige of their discovery. For instance, Kepler’s identification of the invention of the telescope in

\textsuperscript{87} This deployment of dialogue in which the figures portrayed incriminate themselves is characteristic of Lucian’s own use of the dialogue form in his satires. See Mayer.

Giovanni Della Porta’s *Magia Naturalia* was taken by some to indicate Galileo’s theft of the invention.  

Elizabeth Spiller argues, more persuasively, that Kepler deliberately contrasts Galileo’s practices of observation with his own textual methods, contextualizing his discoveries in reference to other authorities. However, if we read the *Dissertatio* as the product of an inventive reading of Galileo’s *Sidereus nuncius*, instead of merely an interpretation of and reaction to Galileo’s results, Kepler’s strategy seems much more understandable. In the *Dissertatio*, Kepler is very clear that he wishes to provide Galileo with novelties in order to recompense him for the gifts that he has given Kepler in the *Sidereus nuncius*. As a result, he treats Galileo’s *Sidereus nuncius* both as an astronomical argument and as a repository of information about novelties in the heavens. Kepler’s attention to the new discoveries that Galileo had observed in the heavens can be understood as a process of invention that draws upon these novelties as the basis for the construction of new knowledge. In this context, Kepler’s repeated references to his own works and to their arguments, which appear at first strangely self-absorbed, become understandable. He treats his texts in much the same way as he treats works by Galileo, Della Porta, and Michael Maestlin—as compendia of astronomical arguments, information and inferences upon which Kepler, Galileo, or any other reader of his letter might conveniently draw.  

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This relationship is clearest in the post-script added to the printed edition of the
_Dissertatio_, where Kepler compares the _Sidereus nuncius_ to the new books from the
Frankfurt fair of the previous year. For Kepler, the fair’s catalogue—the _Catalogus
universalis pro nundinis francofurtensibus vernalibus de anno 1610_—functions, like the
_Sidereus nuncius_, as a site of new information, an understanding that would have been
enhanced by the inclusion of Galileo’s work in the catalogue. Both Galileo and Kepler’s
works participated in these transactions. The first edition of Kepler’s _Dissertatio_, printed
at his own expense, would have met Galileo’s _Sidereus nuncius_ at the fair in 1610. While
Kepler was to complain about the piracy of this text in a Venetian edition of 1611, the
fair catalogue also featured a pirated edition of Galileo’s work, in which the _Sidereus
nuncius_ had been ‘translated’ into a new format—moving from the quarto of the Venetian
dition, to the octavo printed by Zacharias Palthenius in Frankfurt for sale at the fair.
This new version of Galileo’s book, with its faulty copies of the original woodcuts, was
accompanied, the next year, by a new version of the _Dissertatio_ from the same printer, in a
compatible octavo format so that the two might be bound together.91

Kepler makes clear, however, that the novelties in the _Sidereus_ are different from
the works listed in the catalogue to which he draws attention—the new book by Thomas
Gephyrander claiming to square the circle or the book on astrology by Wolfgang Settler
of Basel. The material in Galileo’s book is “plausible though unprecedented” as opposed
to the other books, whose contents are “completely ridiculous though often bandied
about” (48). It is Kepler’s skill as a reader that allows him to distinguish between the

91 See also Johns, _The Nature of the Book_ (1998) 25. The copies of the _Sidereus nuncius_
(1610) and _Dissertatio_ (1611) held at the Thomas Fisher Library are bound together in
this way.
matter contained in books in this way, just as it allows him to order and organize astronomical data. Indeed, both the Somnium and the Dissertatio work in similar ways. The process of analyzing and commenting upon Galileo’s discoveries in the Dissertatio is very similar to the structural support that Kepler builds in the Somnium. Both depend upon the humanist methods of inventive reading, which Kepler advertises in his De stella nova—one of the books by Kepler that Donne owned. The book’s title page is adorned with an emblem: a woodcut of a bird, surrounded by chicks, pecking at the ground with the motto, “Grana dat e fimo scrutans”—“Searching, it gives grain out of dung,” providing nourishment to its dependents. With Kepler’s self-presentation via this emblematic image in mind, I want to turn from the large-scale structural work performed by Kepler to consider the processes by which Donne and other writers construct allegorical images that encapsulate this material.

Moving the Earth: Depicting Copernicus’s Discoveries

The depictions of Galileo and Kepler’s authority over the heavens near the beginning of Ignatius, his Conclave depend upon the Renaissance tradition of allegorizing astronomical work, in particular the trope of the giant Atlas, whose task it was to bear the heavens on his shoulders. Atlas’ story was so familiar that Erasmus’ Adages—the most popular sixteenth-century compendium of rhetorical figures—says there is no need to recount it. Erasmus notes that the phrase Atlas coelum (“Atlas [supported] the sky”) was used to refer to “people who get themselves entangled in great and grievous matters, thus

92 For the familiarity of the Atlas myth, see Erasmus, “Atlas coelum,” Adages I.i.67, 110.
seeking out trouble for themselves. For this man received hospitality in heaven; but
caught in the act of laying an ambush against it, he was flung into the Atlantic Ocean.”

Adam Mosley’s account of the use of the figure of Atlas as coelifer, however,
shows how this trope was also used as a standard figure of praise for both astronomers
and their patrons, and as a motif of the decoration of astronomical instruments and
observatories.93 Focusing on the circle of the great Danish astronomer, Tycho Brahe,
Mosley examines the widespread tradition of allegorizing astronomical practice in terms
of this figure. In his account, the figure of Atlas (or, sometimes, of Hercules who also,
briefly, took up Atlas’ burden) provided a stable template for the praise of astronomers.
This mythological depiction of Atlas supporting the weight of the cosmos on his back
became a figure for those “entangled in great or grievous matters,” particularly the
weighty responsibility of the mass of observations involved in the practice of astronomy,
as well as the regal authority conferred by mastery of the discipline. Moreover, the
euhemeristic practice of interpreting the myth of Atlas as an allegorical account of a real
historical figure, King Atlas, allowed this trope to be incorporated in the chronology of
the development of astronomy. This complex of meanings was particularly useful to
Brahe, for whom the connected images of authority and responsibility fit particularly well
with his noble status and large-scale practice of observation.

Mosley provides only laudatory examples of the trope of Atlas as astronomer and
king. By contrast, in this section, I examine a variety of inventive transformations of this
and other allegorical images, as writers both praise and satirize Copernicus’s achievement.
Although these representations do not directly refer to each other, they all display the

93 Mosley, Bearing the Heavens (2006), esp. 1-30. For a depiction of Galileo as Atlas, see
combinatoric results of a process of inventive reading that draws upon the same sources. I use Erasmus’s *Adages*, the most famous and elaborate early sixteenth-century collection of classical proverbial sayings, as a basis for comparison. While the *Adages* provided the seed material for a bewildering variety of collections, both of greater and lesser scope, the last version on which Erasmus worked was completed before the publication of Copernicus’s theory. As a result, the classical figures had not begun to change in response to these new ideas. The subsequent reuse and transformation of these tropes as writers struggle to refute or accommodate Copernicus’s heliocentric theory, and particularly the motion of the earth, bear the traces of their engagement with astronomical theory.

While Donne’s descriptions of Galileo and Kepler suggest their place as Copernicus’s heirs, it is Copernicus that *Ignatius, his Conclave* presents as the personification of innovation in astronomy. Most significantly, Copernicus’s imaginative reconception of the cosmos from the point of view of the sun is represented as an act of moving the earth. The equation of his hypothesis with this emblematic activity appears in several forms, both in *Ignatius, his Conclave* and elsewhere in Donne’s work. He first appears in the satire as,

> a certaine *Mathematitian*, [who...] came to the gates, and with hands and feet [...] beat the dores, and cried: “Are these shut against me, to whom all the Heavens were ever open, who was a Soule to the Earth, and gave it motion?” (13)

Like Donne’s earlier depictions of Galileo and Kepler, this image of Copernicus as one “to whom all the Heavens were ever open,” makes him a self-declared authority whose rule over the heavens derives from his “busie” attempts “to finde, to deride, to detrude *Ptolomey*” (13). Donne’s description of Copernicus as “a Soule to the Earth” refers to the
fluid Stoic cosmology, in which the planets are moved by the force of a soul or intelligence, like “fish in the sea or birds in the air.” While both this and Donne’s earlier reference to the planets as “swimming islands” mock Cardinal Bellarmine’s adherence to this physical theory of the heavens, it is Donne’s depiction of Copernicus giving the earth movement that is central to my argument.

This image of Copernicus setting the world in motion by giving it a soul is only one of a series of depictions of Copernicus moving the earth that appear in the same section of Ignatius, his Conclave. The description of the cosmos presented in Copernicus’s *De revolutionibus orbium coelestium* posited not one but three separate motions of the earth—diurnal rotation, annual orbit, and annual tilt of the axis—thus explaining the apparent motion of the heavens. Depictions of Copernicus’s theories, however, often collapse this three-fold motion into a single movement, like that attributed to simple bodies by Aristotelian philosophers. Thus, in a later passage, Copernicus introduces himself to Lucifer—whom he thinks to be “of the race of the starre *Lucifer*”—explaining:

I am he, which pitying thee who wert thrust into the Center of the world, raiyed both thee, and thy prison, the Earth, up into the Heavens; so as by my meanes God doth not enjoy his revenge upon thee. The Sunne, which was an officious spy, and a betrayer of faults, and so thine enemy, I have appointed to go into the lowest part of the world.... Shall these gates be open to such as have innovated in small matters? and shall they be shut against me, who have turned the whole frame of the world, and am thereby almost a new Creator? (13-15)

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Donne depicts Copernicus imparting motion to the earth by moving it to a new place in the cosmos, raising “the Earth, up into the Heavens” and sending the Sun “into the lowest part of the world.” By doing so, Donne combines two aspects of the critique of Copernicus: his denial of the immobility of the earth and his denial of its centrality. Moreover, the rotation of the planet becomes a “turn[ing]” of the “whole frame of the world,” as if Copernicus were a carpenter working at a lathe, allowing him to claim to be its Creator.

Donne’s depictions of Copernicus reordering the universe derive from a tradition of travesty associated with his work. One of the first critiques of the De revolutionibus appears in a defense of orthodox religion by Giovanni Maria Tolosani, On the Truth of Divine Scripture (1544). While his manuscript was never published, his description of Copernicus prefigures later literary depictions:

[I]n his imagination he changes the order of God’s creatures in his [book] when, like the giant trying to pile Ossa on Pelion, he [seeks] to raise the earth, heavier than the other elements, from its lower place to the sphere where everybody by common consent locates the sun’s sphere, and to cast that sphere of the sun down to the place of the earth, contravening the rational order and Holy Writ, which declares that heaven is up, while the earth is down.95

Tolosani’s argument uses Aristotelian physics to explain the impossibility of Copernicus’s system, insisting on an ordering of the elements with the heaviest at the center of the cosmos. The critique draws support from the comparison of the proposed system with the impossible and unstable construct of one mountain piled upon another, suggesting

the awkwardness of Copernicus’s cosmology as well as the immense and supposedly unsuccessful effort involved in its production. Read in the context of the figure of Atlas and his responsibility of supporting the heavens, it implicitly suggests that the *De Revolutionibus*, like the assault of the giants upon Olympus, is a failed attempt to overthrow, indeed to overturn, the cosmic order.

Erasmus’ adage, *Gigantum arrogantia* ("The pride of giants"), suggests the basis for this transformation of the figure of Atlas. Like the other giants, Atlas was punished for his assault upon heaven. Collectively, the giants symbolized the folly of trusting in might over reason—as Erasmus puts it, the proverb can be used to portray one who “relying on his own strength, [...] rashly and inconsiderately undertook things that should not have been attempted. The origin is the well-known story of the giants. The adage tells us that anything undertaken unreasonably and by force against the gods, against piety, against the law, against justice will turn out to be ill-fated.” Erasmus, moreover, adduces Horace in his *Odes*, in the section following story of the Titans’ folly and Jupiter’s revenge, as commentary: “Force without reason topples to its own ruin, / Force moderated is raised by the gods to even greater heights” (Odes 3.4.65-7). He provides a verse from Aristotle’s *Rhetoric* as the moral: “It is not proper that one who is mortal should be concerned with immortal things, / But rather one who is mortal should think of mortal things.” Implicitly, like the story of the construction of the Tower of Babel, this turning away from the celestial to concern oneself with mortal things becomes as an injunction to attend to the earth rather than to examine the heavens.

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97 *Adages* III.10.93.
While Tolosani’s manuscript saw little circulation, I want to examine a pair of other sixteenth-century responses to Copernicus which make use of the same motifs, and which both are referenced in Kepler’s *Astronomia nova* (1609): Peter Ramus’ *Scholae mathematicae* and Tycho Brahe’s “Hortatory Ode.” While these texts do not make use of the main allegorical image of Kepler’s work—the military campaign to subjugate Mars, the god of war—their use of the image of Atlas places them in conflict with each other and with Kepler’s pro-Copernican project. Kepler opens the *Astronomia nova* with an excerpt from and response to Ramus’ polemic critique of the history of astronomy, printed on the reverse of the title page. In the section quoted by Kepler, Ramus draws upon the trope of the astronomer as a giant in order to take Copernicus to task over a methodological failure. He complains,

Would that Copernicus had been more inclined towards this idea of establishing an astronomy without hypotheses! For it would have been far easier for him to describe an astronomy corresponding to the truth about its stars, than to move the earth, a task like the labour of some giant, so that in consequence of the earth’s being moved, we might observe the stars at rest.99

Ramus, unlike Tolosani, is not concerned with Copernicus’s failure to maintain the disciplinary distinctions between Aristotelian physics and mathematical hypotheses produced by astronomy. Indeed, Ramus himself is engaged in a critique of just such distinctions, but his geocentric assumptions lead him to recast Copernicus’s work as a

99 Quoted in Kepler, *New Astronomy 27*. 
“failure” to produce a mathematization of the movements of the heavens which corresponds to their physical organization. As a result, Copernicus’s imaginative leap of seeing the heavens from the point of view of the sun seems like the pointless labour of a giant.

Ramus’ misunderstanding of Copernicus, perhaps induced by Osiander’s famous inserted preface to the De Revolutionibus, derived from the combination of a belief in the central, immobile earth with a misunderstanding of Copernicus’s method.100 He claims precisely to offer an astronomy, not of hypotheses, but of descriptions of the motions of the heavens. It is for this reason that Kepler quotes and rebuts Ramus’ claims at the very beginning of his Nova Astronomia. Picking up on Ramus’ metaphor comparing Copernicus’s efforts to those of a giant, he responds,

I, too, admit something commonly considered most absurd philosophically, defending it, not with a gigantic effort, but with the best arguments.... It is a most absurd business, I admit, to demonstrate natural phenomena through false causes, but this is not what is happening in Copernicus. For he too considered his hypotheses true, no less than those who you mention considered their old ones true, but he did not just consider them true, but demonstrates it; as evidence of which I offer this work. (New Astronomy 27)

In defending Copernicus in this manner, Kepler attacks both the substance of Ramus’ claims and their figuration. Kepler’s own efforts in determining the orbit of the planet Mars—though he later compares them to a prolonged but successful military campaign, and their form to the narrative of a journey beset by thorns—are here described not as the

product of “gigantic effort,” but simply the result of “the best arguments.” In this context, Ramus’ use of the figure of erroneous giant-like labour implicitly contrasts itself with the ease of the Greek virtue of *metis*, or cunning intelligence. In the adage on “The arrogance of giants,” Erasmus claims that “reason and deliberation are of much greater weight than physical strength,” quoting Homer’s *Iliad*:

> By cunning much more than by strength
> You can cut down heavy timber;
> By cunning too the helmsman steers the ship
> Buffeted by wind and waves on the dark sea,
> By cunning one charioteer beats another and comes first.

(Homer, *Iliad* 23.315-18)

The archetype of this sort of intellectual and technical prowess was the mathematician and inventor, Archimedes, famed for the devices by which he defended Syracuse. Implicitly, this grace, ease or subtlety opposed itself to the prolonged laborious processes of observation associated with astronomy and the giant Atlas, in the trope used by Brahe and his circle. As a result, in the *Astronomia nova*, Kepler is confronted by the need to address satirical depictions of Copernicus, as well as the technical details of Mars’ orbit. This problem is compounded by Kepler’s own perception of the difficulties associated with calculating the movements of Mars.102

Kepler’s attention to the image of Copernicus’s giant-like labour takes on additional weight in the context of Ramus’ use of another image of astronomers as giants.

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earlier in the section, in a passage not quoted by Kepler. There he compares those who
follow the heliocentric system of Aristippus and other early forebears of Copernicus with
the cyclops Polyphemus: “Aristippe mathematicis illis luminibus orbate, quid plus in
physicorum philosophorum schola, quam Polyphemus ab Ulysse occaecatus in spelunca
videris?”103 In a typical condemnation of misplaced reliance on scholarly learning,
blindness—here the exaggerated blindness of Polyphemus—is compared to the
depredation of sense produced by Aristippus’ claim of heliocentrism. In this context,
Kepler’s transformation of giant-like effort into logical ease suggests the lightening of the
burden of calculation allowed by Copernicus’s innovation.

By contrast to Ramus, for Brahe, giant-like labour is the basis of astronomical
work, as depicted in his “Hortatory Ode” encouraging the study of astronomy, which
Kepler includes prominently in the Astronomia nova. Not only is this the longest of the
poems that preface Kepler’s work, but it is the only one to which Kepler himself explicitly
replies. In it Brahe, like Tolosani, depicts the practice of astronomy as an assault upon the
heavens, though he does so in a positive light:

Now it allows one to climb the peaks of the unapproached heavens,
And to go through to the highest of houses, Divinities’ dwellings.
Now one can fully describe heaven’s fires, whether fixed or traversing
Various paths, and prove their celestial course and position.
Thus can the wonders of Jupiter, highest of gods, be established.104

103 “O Aristippus, having been deprived by those mathematicians of illumination, what
else do you seem, in the school of the natural philosophers, than Polyphemus blinded in
the cave by Ulysses.”
Nova Astronomia (** ) 5v-6r:
Like Ramus, Brahe uses images of darkness and blindness to describe the wrong-headed labour that opposes this endeavour, “dismiss[ing] those moles to dig in their dingy dark caverns, / Sightless that they may remain, for that is their dearest desire.” In both cases, blindness not only suggests ignorance, but is a figure for textual work conducted in darkened studies and caves, instead of the practice of observation under the night sky. However, it is the image of the responsibility involved in bearing up those heavens which occupies the central section of his poem, where he addresses his readers:

Your studies as well as your labours

Hither bring with one spirit, to let help come to the weary

King Alfonso, who, as successor to Atlas his neighbor,

Bore the weight in like manner, with forces not up to the effort;

Likewise, let great Copernicus sense the help that is ready,

Lest, as he gives himself to the Herculean labour, approaching

Trustingly, he might succumb to the burden exceedingly heavy,

Causing the poles, wanting Atlas and Hercules, pillars so mighty,

Already starting to nod, to bring on tremendous disasters,

Even so afar as to move at the same time the earth from its station*,

Throwing disorder on simplistic tolerance (stupid because it

Comes from dull ignorance of the heavens), and, in a double

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Scandere inaccessi liceat qua culmina Coeli,
Et superas penetrare Domos, habiticula Divum:
Seu lubeat Fixas, vario seu tramite Motas
Designare Faces, cursumque situmque probare
Sidereum, Summi ut constent miracula Jovae. (lines 3-7)

105 “Obscuris tapas mittentes degere in antris, / Perpetuo ut coecae maneant, velut esse cupiscunt” (lines 13-14).
Downfall, on all of humanity, with all the wild beast and cattle,

Mingling the courts of the world with blind darkness and primeval Chaos.

Do not accept this obscenity: battle such decadent ruin,

Come with me to ascend Olympus with forces redoubled,

Let us now hasten to close the cracks that have lately been broken,

Firm up the coffered ceiling of heaven with sturdy new crossbeams:

Now is the time to act, ere the whole machine tumbles to pieces.106

Here the work of astronomy is depicted as a burdensome inheritance from Atlas, one which obliges astronomers to “ascend Olympus” in order to repair the structure of the heavens. These “cracks that have lately been broken [open]” are both Copernicus’s new theories and the series of novae—new stars—that appeared in the heavens during the late sixteenth century. Like King Alfonso and Copernicus, Brahe dedicates himself to further Atlas-like labour, vowing “I will exert myself further, / Stretching each sinew to open

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...studium atque laborem
Huc ferte unanimes; sesso ut succurrere Regi
Alfonso liceat, pondus non viribus aequis
Qui modo, vicini, tulerat successor, Atlantis;
Auxilium simul ut promptum Copernicus ingens
Sentiat; Herculeo, ne, dum se inferre labori
Aggreditur fidens, oneri, succumbat iniquo:
Sicque poli, Atlantis, cassi, Alcidaeque columnis,
Ingentem, jam jam nutantes, ferre ruinam
Cogantur, Terramque simul statione moventes*,
Barbarie hospitium (crassa ignorantia coeli
Quam pariet) concosque homines, pecudesque forasque
Turbantes casu ancipiti, coecisque tenebris,
Antiquoque Chao miscentes atria Mundi.
Hoc prohibete nefas, pronoque occurrite damno,
Et mecum excelsum validis conscendite Olympum
Viribus, ut fissas mature occultere rimas,
Et stabiliere novis Coeli laquearia transtris,
Jamque prius, liceat, quam Machina fathiscat. (lines 18-36)
great heaven’s innermost secrets / Unto the natives of earth, revealing its roofed-in recesses.”

Brahe’s support for his own compromise geoheliocentric system, in which the sun and moon orbit the earth and all the other planets orbit the sun, produces an ambivalent depiction of Copernicus. By figuring Copernicus’s work as like that of Hercules, the poem makes him into Atlas’ heir, and associates his efforts with the pillars of Hercules. However, Copernicus attempts to bear this “burden exceedingly heavy,” and in particular his method of reimagining the universe as sun-centered, threatens to destabilize the poles, those “pillars so mighty,” and “to bring on tremendous disasters.”

Kepler, as a follower of both Brahe and Copernicus, is thus forced to contextualize the worry that Copernicus has gone “Even so afar as to move at the same time the earth from its station”—a claim that focuses on the same problem identified by Tolosani, Ramus and most of Copernicus’s critics. Kepler’s marginal note to this asterisk explains, “Meaning, that the poles go to ruin. For this passage indicts the imperfection of astronomy, and ignorance of it, but not the hypothesis of Copernicus, which makes the earth mobile.”

This disingenuous reinterpretation of Brahe’s views allows Kepler to avoid his problematic disagreement with Copernicus and to transform the critique of the moving earth into the more generalized difficulty of the failures of predictive accuracy common to both the Ptolemaic and Copernican systems. In his response, Kepler proceeds to deliberately quote Brahe’s poem to show how he in turn has taken up the same burden: “Trustingly I approach to take up such a great weight, and / ‘Firm up the coffered ceiling of heaven with sturdy new cross-beams,’” though in his case, these crossbeams are the

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107 “omnibus ulтро / Annitar nervis, magni penetralia Coeli / Pandere terrigenis, tectosque aperire recessus.”
108 Subintellige Poli ruentes. Hic enim imperfectionem Astronomiae incusat, & ignorantiam eius; non veo Hypotheses Copernici, Terram mobilem facientes.”
“Famous timbers from Samos, the five regular solids,” which he describes in his *Mysterium Cosmographicum*. Implicit in Kepler’s claim to have discovered new timbers to support the universe were continuing worries about the structures upon which the astronomical universe was based.

The title page to the tables in Kepler’s *Tabulae Rudolphinae* (1627) presents an image of this orderly structure of astronomy supporting the heavens in an allegorized form, which can be understood as a depiction of the support for the system of the heavens described in Tycho’s “Hortatory Ode.” The cupola of the *Astro-poelico-pyrgium* or “variegated-star-tower” depicted there is erected upon ten pillars representative of different phases of Antiquity (Figure 1.1). They range from the rude wooden support associated with the Chaldeans, through the crude brick pillars associated with the Greek astronomers of classical antiquity, and conclude with Copernicus and Tycho Brahe at the front. This image of astronomical progress as a series of supports for the dome of the heavens simultaneously proclaims the new stability produced by the Rudolphine Tables and implicitly suggests a worry about the shifting of foundational assumptions involved in the transition between different systems of astronomical calculation, all of which supposedly “save the appearances.” This vexed question of the support provided by these ‘pillars of astronomy’ is explicit in the figures of Copernicus and Brahe, given their places at the forefront of the structure.

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Figure 1.1. The *Astro-peolico-pyrgium*. Johannes Kepler, *Tabulae Rudolphinae* (1627).
Tycho is portrayed in conversation with Copernicus, pointing to a picture of his geoheliocentric model of the universe and asking, “What if this is true?” Yet their disagreement about the different hypotheses and physical systems which they proposed does not hinder their mutual support of the dome of the heavens. As the location of the image in the Rudolphine Tables suggests, this support derives from their work in ordering and organizing astronomical data into a form which could be used by astronomers. While Tycho Brahe’s unparalleled set of observations provided the basis for the Rudolphine Tables, Copernicus’s work underlay the calculations in the Prutenic Tables, compiled by Erasmus Reinhold, which the Rudophine Tables were intended to replace. In tabular form, the different assumptions upon which the calculations were based—whether the hypotheses were geocentric, heliocentric, or geoheliocentric—were not readily apparent because the tables described the movement of the heavens in terms of how they would be seen by an earth-bound observer. Copernicus’s conceptual transformation of astronomy disappears from view, and he can be placed without worry alongside other astronomers with very different assumptions about the physics of the heavens.

However, this structure supporting the heavens brings back worries about the stable foundations of astronomy. In his *Defense of Tycho against Ursus*, Kepler makes this worry about foundations explicit in his defense of the use of hypotheses in astronomy. He argues that the conception of a hypothesis derives from the axioms or postulates used in geometry, and that they are the propositions accepted at the beginning of an argument. Thus, “when we speak in the plural of ‘astronomical hypotheses’, we...thereby designate a

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certain totality of the views of some notable practitioner, from which totality he
demonstrates the entire basis of the heavenly motions.”

Kepler founds his refutation of Ursus’ attack on the use of hypotheses on an architectural metaphor. He explains,

This custom of naming the opinion about the form of the universe that each of
the philosophers had derived from his inspection of the heavens, and of calling it
‘a hypothesis,’ did not arise at once with the habit of observing the heavens....

Before the birth of logic as a part of philosophy, when [geometricians] wanted to
expound their demonstrations by the natural light of the mind, they used to start
their teaching from some established beginning. For in architecture the builder is
content to lay down foundations below the ground for the future mass of the
house, and he does not worry that the ground below might shift or cave in.

Kepler argues that the system of a hypothesis must be coherent in and of itself, and,
moreover, that it is necessary to base the construction of that hypothesis upon premises
exterior to itself. The relationship between the hypotheses the astronomer builds and
their foundation in the observed movements of the heavens allows hypotheses to be
distinguished from one another: “every hypothesis whatsoever, if we examine it minutely,
yields some consequence which is entirely its own and is not shared with any other
hypothesis” (Jardine 143). Implicitly, in Kepler’s account, this process of comparing the
results of differing hypotheses will reveal those which are built on shaky foundations or
those under which the conceptual ground has shifted, disturbing the foundations and
pillars upon which the edifice of astronomy, and thus the heavens, has been built.

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113 Jardine 137.
In this context, the vital place given to Copernicus by Kepler in the *Tabulae Rudolphinae* is at odds with the worries of anti-Copernicans concerning his work’s destabilizing effect on the edifice of astronomy. Kepler is addresses these worries when he promises, in the introduction to the *Astronomia nova*, to address the concerns of “those professors of the physical sciences who are irate with me, as well as with Copernicus and even with the remotest antiquity, on account of our having shaken the foundations of the sciences with the motion of the earth” (*Astronomia nova* 46-7). The emphasis here is not upon Copernicus’s imaginative act of relocating the point of observation to the sun, but instead becomes associated with the consequence of his theories by which the earth is set in motion. The resulting scriptural arguments over the earth’s movement place the observer firmly on earth so as to feel, rather than see, the effects of Copernicus’s work in the form of a palpable moving of the earth—an earthquake.

**The Trembling Earth**

Keplerius, an alumnus of earth, makes assault on the heavens.

Seek not for ladders: the earth itself takes flight

Belief in the immobility and centrality of the earth attested to by scripture was, as I suggested earlier, a central objection to the Copernican theory. Prior to Copernicus, the adage “Terra volat” (“The earth flies”) was commonly used to describe, according to Erasmus, “a totally incongruous thing, which cannot possibly occur. Suidas gives it as an example of the ‘impossible’” (*Adages* iiii 25, 257). While some astronomers, such as Andreas Osiander, the so-called Wittich circle, Christoph Clavius and Tycho Brahe,

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were willing to accept Copernicus’s work as a useful system of hypotheses which “saved the phenomena,” as Brahe’s “Hortatory Ode” suggests, the idea of the moving earth was profoundly troubling, not only because it contradicted philosophical and scriptural authority, but also because it seemed to go against common sense.

The effects of this nonsensical movement of the earth were fiercely disputed. In *Ignatius, bis Conclave*, Ignatius, replying to Copernicus, argues that there are no moral consequences that result in the earth’s movement:

> But for you, what new thing have you invented, by which our *Lucifer* gets any thing? What cares hee whether the earth travell, or stand still? Hath your raising up of the earth into heaven, brought men to that confidence, that they build new towers or threaten God againe? Or do they out of this motion of the earth conclude, that these is no hell, or deny the punishment of sin? Do not men beleve? do they not live just, as they did before? (*Ignatius* 17)

Ignatius’ concern with whether the moving earth prevents men from “liv[ing] just” redirects attention away from the disturbing possibility of motion. Ignatius asks whether men have renewed the assault on Heaven remembered in the story of the Tower of Babel, and instead asserts the opposite: that they continue to live justly, as they did before they became worried that the earth might move. Yet, in dismissing the charge that the mobility of the earth brings about impiety, Ignatius implicitly acknowledges the worries associated with this new doctrine, which has its foundation in another edifice—Copernicus’s heliocentric description of the cosmos. The result of these evasive attempts to sideline worries about the motion of the earth is, paradoxically, to emphasize their pervasiveness.
Donne’s “Valediction: Forbidding Mourning” offers one site in which these worries rise to the surface. The poem’s discussion of the connection between separated lovers expresses the contrast between the speaker and addressee’s celestial love and that of other lovers in the third stanza by the contrast between the movement of the earth and the motion of the spheres. The speaker claims:

Moving of th’earth brings harmes and feares,

Men reckon what it did and meant,

But trepidation of the Spheares,

Though greater farre, is innocent. (lines 9-12)

The distinction Donne makes in this passage between the “harmes and fears” caused by “[m]oving of th’earth” and the “innocence” of trepidation was an important site of critical controversy for the New Criticism. In their famous New Critical essay, “The Intentional Fallacy,” Wimsatt and Beardsley took Charles Coffin to task for asserting that the moving of the earth in this passage from “Valediction” referred to Copernican assertions of the earth’s motion rather than simply to an earthquake. While their appeal to the plain sense of language now seems outmoded, the immediate sense of the “Moving of th’earth” as an earthquake is very much present in the poem. Reading this stanza, the reader’s thoughts mimic the motion of planets across the sky as seen from earth. On first reading, “moving of the earth causes harmes and feares” seems to imply only the physical and mental effects of an earthquake. However, the use of the phrase “trepidation of the spheares,” two lines later, recasts the stanza in an astronomical context.\footnote{On trepidation, see James Evans, *The History and Practice of Ancient Astronomy* (1998) 274–280; Olaf Pedersen and Mogens Pihl, *Early Physics and Astronomy* (1993) 183–5; and Bernard R. Goldstein, “On the Theory of Trepidation according to Thabit b. Qurra
between the “harmes and feares” in the first line and the shivering oscillation of the spheres of heaven suggests worries aroused by Copernicus’s claim that the earth moves. In response, the reader’s attention moves back towards the beginning of the poem, going into retrograde. By drawing attention back to the first line, the poem forces the alternative reading, with its commentary upon the Copernican hypothesis, upon the reader—and it is with this reading in mind that the reader proceeds further into the poem.\footnote{116}

While the word ‘trepidation’ invokes an ambiguity as to whether the movement is that of an earthquake or the moving earth, the conflation of these two sorts of movement suggests a particular scriptural argument provoked by Copernicus. Donne’s use of primarily Catholic theological tracts, and those by Spanish theologians in particular, in his controversarial work suggests that he might have been familiar with this debate. These controversies centered around biblical depictions of the sun and earth, but the image of the moving earth used by Donne suggests, in particular, the discussion of Job 9:6, “Who shaketh the Earth out of her place, and the Pillars thereof tremble.”\footnote{117} While scriptural arguments had conventionally been deployed against Copernicanism, the Spanish theologian Diego de Zuñiga’s 1584 \textit{Commentary on Job} explained this passage on the wisdom and omnipotence of God with reference to the Copernican theory—reading “commovet,” normally understood as a shaking, as implying the motion of the earth. As Robert Westman has argued, Zuñiga’s method differed from other attempts by

\footnote{116}{See Wimsatt and Beardsley. For a discussion of this section of the \textit{Valediction}, see Empson, “Donne the Spaceman” 122-4.}

\footnote{117}{“Qui commovet terram de loco suo, & columnae eius concutiuntur.”}
supporters of Copernicanism to deal with scriptural precedent. Where authors such as Kepler and Bruno explained scriptural passages by arguing that it was necessary to understand the language of scripture as accommodated to human perspective, Zuñiga’s adherence to scriptural literalism leads him to explicate the passage in Copernican terms. Zuñiga’s adherence to this position did not last long. By 1597, he stated in another text that the earth’s daily rotation was “absurd.” In 1600, the Spanish Jesuit Juan de Pineda replied to Zuñiga, offering a different literal reading that insisted on a reading of *terrae commotio* as *terrae tremor*, and in 1616 the doctrine was formally condemned by the Church. However, Zuñiga’s text continued to provide a place of purchase in scripture for literalist Copernican readings.

Zuñiga argues that while the passage seems difficult to explain in the context of geocentric systems, when understood in the context of Pythagorean doctrine, it confirms their opinion that the earth moves by her own nature. Moreover, Copernicanism explains away the dissimilar speeds of the planets and the difficulty of trepidation inherent in the Ptolemaic system. Copernicus’s theories, thus, not only solve problems inherent in Ptolemaic cosmology and Aristotelian physics, but they also facilitate the exegesis of this biblical passage in a manner which “shows the marvelous power and wisdom of God,

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120 Juan Diego de Zuñiga, *In Iob Commentaria*, 3rd ed. (1591): “Qui locus difficilis quidem videtur, valdeque illustraretur ex Pythagoricorum sententia estimantium terram moveri natura sua, nec aliter posse stellarum motus tam longè tarditate, & celeritate dissimiles explicari” (140).
who, while the earth should be by nature the heaviest object, can disturb the whole earth with motion, and does so.”

Thus the objection of Aristotelian physics that, as the heaviest element, the earth must necessarily rest at the center of the cosmos is inverted, transforming this impediment to heliocentrism into a proof of the omnipotence of God. The shaking of the earth in the passage is changed from the conventional interpretation of an earthquake into the triple motion described in Copernicus’s *De revolutionibus*.

Zuñiga’s claims take a theoretical turn in his interpretation of the second half of the verse, where he claims that, “It says, ‘And the Pillars thereof tremble,’ which signifies them, by the aforesaid doctrine, to be moved from their foundations.” This disruption of the foundations of the world not only suggests the Copernican movement of the earth, it implicitly justifies Zuñiga’s reversal of the opinions of previous commentators and astronomers. Like Brahe’s description of the potentially destabilizing effects of Copernicus’s theories, Zuñiga takes advantage of this dislocation. His end, however, is radically different. Rather than attempting to shore up the current structure of astronomy, Zuñiga oversets it, arguing that this trembling of the earth shows “the great reverence and fear in which the Earth holds God,” a reverence and fear which manifests itself in its trembling at his command, “just as Olympus trembled at the command of Jupiter.”

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121 “Iuxta igitur hanc sententiam facile locus hic, de quo verba facimus, declarantur, Ut ostendat mirabilem Dei poenitiam atque sapientiam, qui terram, cum gravissima natura sit, universam motu cieat, atque agat” (141).
122 “Dicit Et columnae eius concutientur, ut significet eam ex doctrina posita a fundamentis moveri”(141).
123 “Quibus tamen haec antiquorum, & recentium Philosophorum opinio no[n] probabitur, licet non ita feliciter, potest tamen in terrae motus convenire, quibus nonnunqu’am terra conquaflatur. Vel potius ut significet reverentiam maximam, quam exhibet terra Deo, timoremque, quo illum veneratur, & ius eius obtemperat, ut nutu
This specifically scriptural context for this imagery is given its most extreme transformation in a short Latin poem by George Herbert, “Terrae-Motus”:

Te fixo vel Terra movet; nam, cum Cruce, totam
Circumferre potes; Sampson ut ante fores.
Heu stolidi, primum fugientem figite Terram,
Tunc Dominus clavis aggrediendus erit.\(^{124}\)

The sacrilegious act of affixing Christ to the cross with nails brings about an earthquake—one of the phenomena that accompanied Christ’s death. Herbert, like Zuñiga, associates this shaking of the earth with both the Copernican doctrine of the moving earth and God’s ability to shake the earth’s foundations. The “stolidi” who nail Christ to the cross are not only stupid and foolish, but unfeeling, unmoved, both by his suffering and by the movement of the earth that accompanies it. Their assertion of the earth’s stability becomes associated with their violence towards Christ, their assault upon God. In the poem, Herbert places Christ in the role of Atlas, transforming the burden of the heavens into the weight of the world’s sins. His description of Samson pulling down the doorway of the Temple of the Philistines not only draws upon a typological reading which associates this Old Testament hero with Christ, but makes the association with Atlas clearer still: Samson’s suffering is a type for Christ’s passion. The relationship between these two figures also mimics Hercules’ association with pillars and his

\(^{124}\) Herbert *Works* (1941) 408. “When you were affixed, even the earth moved; for, with the cross, / You are able to carry round all things, as Sampson before you carried the entranceway. / Alas, unfeeling ones, first you fix the fleeting Earth, / Then assault the Lord with nails.” My translation.
inheritance of Atlas’ responsibilities—a relationship enhanced by the allegorical use of the half-divine Hercules as a figuration of Christ. The two parallel systems of representation thus provide mutually supporting structures. The images of pillars shaken, foundations disturbed and doors wrenched from their frames connect the poetic motifs used in all these representations with support for the heavens and earth.

Herbert’s adoption of the motif of the moving earth to explain the earthquake associated with the crucifixion seizes upon the same strategy as that pursued by Zuñiga. Herbert substitutes the earthquake that followed Christ’s death for the shaking of Job 9:6. Zuñiga’s literalist adoption of the movement of the earth as natural was starkly opposed to conventional readings in which the earth is stable by nature and its movement is unnatural, a prodigy or miracle—a conception which insists on the disjunctive nature of Christ’s incarnation and sacrifice, as in Donne’s depiction of the crucifixion in “Goodfriday, 1613. Riding Westward.” In that poem Donne alludes to this heaven-bearing function of God in the process of asking “What a death were it...to see God dye?” Not only has Christ’s death “made his owne Lieutenant Nature shrinke,” it brought on earthquakes and an eclipse of the sun, “It made his footstoole crack, and the Sunne winke” (lines 19-20). His speaker is hesitant about his ability to sustain, in his imagination, the disparity between God’s support for the heavens and his passion on earth. He asks,

Could I behold those hands which span the Poles,
And tune all sphæres at once, pierc’d with those holes?
Could I behold that endlesse height which is
Zenith to us, and our Antipodes,
Humbled below us? (lines 21-25)

Donne’s vision of Christ crucified is placed in contrast to Christ’s role as world-bearing Atlas. The consonance between the images of Christ crucified and God’s “hands which span the Poles” comes via the deliberately discomfiting implication that the poles of the world are like the nails of the cross, an effect that is magnified by seeing the God who is both zenith and antipodes, “Humbled below us.” Donne’s depiction depends for its effect upon the disjunction between the humanity of Christ incarnated and the omnipotence of the God who tunes the spheres. This disjunction fits with the discomfort inherent in Donne’s poem. Where Herbert brought the two images together, Donne must keep them apart.

Herbert also reuses the same conceptual material in a poem from *The Temple*, “Sunday,” in which Christ’s sacrifice is again depicted in the form of the motion of the earth. By contrast to “Terrae-Motus,” in “Sunday” the subject is not the motion of the earth but the importance of the seventh day of rest to the stability of creation:

Sunday’s the pillars are,

On which heav’n’s palace arched lies:

The other days fill up the spare

And hollow room with vanities. (22-5)

The edifying role of the day of rest and reflection is placed in contrast with the hollow vanities of the activities of the other days of the week. This description of Sunday’s role in supporting “heav’n’s palace,” however, also brings to mind the role of the contemplative discipline of astronomy in supporting the fabric of the heavens, particularly as that metaphor is transformed into an allegorical depiction in the frontispiece from the
Rudolphine Tables. This connection between Sunday and astronomy works itself out in the seventh of the poem’s seven-line stanzas, where Herbert uses the same images as in “Terrae-Motus”:

The rest of our Creation
Our great Redeemer did remove
With the same shake, which at his passion
Did th’earth and all things with it move.
As Samson bore the doors away,
Christ’s hands, though nailed, wrought our salvation,

And did un hinge that day. (42-49)

Where “Terrae-Motus” concluded with the violent image of the “stolidi,” the unfeeling ones, who fixed the earth in place and affixed Christ on the cross, “Sunday” provides instead an image of dislocation, of “unhinge[ing],” creating the possibility of salvation where none appeared before. While the explicit invocation of the earth’s motion in the Copernican sense is submerged in “Sunday,” that motion and its positive effects are made clear at the conclusion of the poem. There, the motion of the earth reappears as an image of freedom and salvation:

O let me take thee at the bound,
Leaping with thee from sev’n to sev’n,
Till that we both, being tossed from earth,

Fly hand in hand to heav’n. (60-3)

The sabbath, and metonymically the contemplation of heaven, is transformed into a place of exaltation. Herbert’s speaker “bound[s]” from Sunday to Sunday, leaping over the
secular week and its vanities, until both speaker and companion—Christ—are able to use the motion of the earth to “Fly hand in hand to heav’n.” Herbert’s “Sunday” thus completes the transformation of the initially negative moving earth into a positive sign not only of God’s power, but also of his grace.

While Atlas is the foundation for all of these images, it is the differing adaptations of that classical figure to depict Copernicus which open up the field of structural play with which first Zuñiga and then Donne and Herbert engage. Seen together, they focus our attention not on the interpretation of the astronomical theories propounded or theological arguments made, but on the malleability of these tropes and the variety of inventive uses to which they are “appliable” in the rhetorical and literary tasks at hand. These comparisons, moreover, are not only metaphorical and typological, but also pictorial. The importance of these tropes as images as well as literary figures reflects the evolution, over the course of the sixteenth century, of the emblem tradition. Herbert’s adaptations, for example, take advantage of the conventions by which Atlas, Samson, and Christ were depicted. As the figure of coelifer—the bearer of heaven—the frontispieces of astronomical books and the decorative figures on instruments feature Atlas as a bowed over figure with his arms spread to bear the weight of the world. As such, they suggest how easily this pagan image could be transformed into a Christian one.

The importance of this use of allegorical material for both literary and courtly purposes is apparent in Galileo’s own practices of representation, as advertised in the Sidereus nuncius. In the dedication, Galileo explains that he named his discoveries the “Medicean stars” in honour of the new Grand Duke of Tuscany, Cosimo II. As Mario Biagioli suggests, Galileo used the symbolic value of his discoveries as capital to establish
his position at the Medici court, offering first, in 1608, to compose an emblem in the
form of a lodestone and anchor, with the motto *Vim Facit Amor* (“Love produces
strength”), and later, to propose that he connect his new telescopic discoveries with the
established depictions of the Medici as associated with the ruling planet, Jupiter.\(^{125}\)

Galileo’s elaborate emblematic confections, like the transformations of the figure
of Atlas, suggest the practice of inventive rather than interpretative reading. Galileo’s
account of his observations of the Medicean stars is conventionally analyzed for the
method by which he transforms his sequential observations of the stars near to Jupiter
into a narrative of their orbit around the planet. However, this interpretive act is
accompanied by the inventive process by which he makes his discoveries, to use Donne’s
term, “appliable” to the emblematic discourses that promoted the grandeur and influence
of the Medici court. In a letter to Belisario Vinta, the Florentine secretary of state,
Galileo writes:

> However, I find a point of ambiguity, whether I should consecrate all four to the
> Grand Duke alone, calling them with his name the *Cosmici*, or whether, since
> they are exactly four in number, I should dedicate them to the group of brothers
> with the name of *Medicean Stars*.\(^{126}\)

Galileo’s questions suggest how he went about fitting together scientific observation and
emblematic representation in order to please a potential patron. Just as he understood
that his early improvements to the telescope made it a gift fit for the maritime ambitions
of the Venetian Republic, his knowledge of the mythological figures associated with the
Medici family enabled his reading of the discoveries made during his observations

\(^{125}\) See Westfall, “Science and Patronage”; and Biagioli, *Galileo, Courtier* 103–57.
\(^{126}\) Qtd. in Westfall, “Science and Patronage” 121.
through the telescope. Not only does he draw upon the aggrandizing association of the Grand Dukes of Tuscany with Jupiter, but he fits the four satellites—as Kepler was to dub them—to the four sons of the previous Duke. As Mario Biagioli recounts, this imagery of the Medicean family represented as four stars surrounding Jupiter was to become an important motif for the portrayal of the Medici regime for many years afterwards.\(^{127}\)

Both of Donne’s portrayals of Galileo make use of these emblematic methods, but in literary form. They are what Peter Daly calls a word-emblem: a literary figure which draws upon the vocabulary of emblems in order to organize its parts.\(^{128}\) The brief caricature of Galileo at the beginning of *Ignatius, his Conclave*, in which he is depicted summoning the stars to report, marries a visual image with the punning understanding of the *Sidereus nuncius* title. Donne’s second portrayal of Galileo, which occurs late in the satire, is even more striking for the concision with which it represents the activities reported in the *Sidereus nuncius*. In that passage, Lucifer placates Ignatius by claiming he will call upon Galileo, not to summon the stars to report, but to “draw down the moon” such that the Jesuits may colonize the moon. Lucifer says,

> I will write to the Bishop of Rome: he shall call Galileo the Florentine to him; who by this time hath thoroughly instructed himselfe of all the hills, woods, and Cities in the new world, the Moone. And since he effected so much with his first Glasses, that he saw the Moone, in so neere a distance that hee gave himselfe satisfaction of

\(^{127}\) Biagioli 127-157.

all, and the least parts in her, when now being growne to more perfection in his
Art, he shall have made new Glasses, and they received a hallowing from the Pope,
he may draw the Moone, like a boate floating upon the water, as neere the earth as
he will. (81)

Donne pays closer and more precise attention to the content and form of Galileo’s
discoveries here than he had earlier in Ignatius, his Conclave. The depiction of Galileo
focuses primarily on the early section of the Sidereus nuncius in which Galileo records his
observations of the moon, though it does suggest the connection between Galileo’s
discovery of the similarity between the earth and the moon and wider debates about
whether stars were habitable words: “with the same ease as you passe from the earth to
the Moone, you may passe from the Moone to the other starrs, which are also thought to
be worlds” (81). However, as with the depiction of Galileo summoning the planets from
the sky, this image is based in part upon the optical effects of observation through the
telescope, which by “approximating” the object provides the method by which the moon
is drawn down from the sky.

Donne’s figure of Galileo “drawing down the moon” draws attention the formal
properties of previous depictions. Rather than employing the figure of Atlas, Donne
refigures Galileo based upon a different mythological counterpart. His image is
structurally homologous to previous depictions, at the same time that each of its elements
is different, and his ability to perform this transformation suggests his careful attention to
these allegorical images. Donne finds precedent for Galileo’s discoveries in the classical
depictions of witches, such as Mycale in Ovid, “who men said, had by her incantations
oft-times drawn down the horns of the moon, despite her struggles.” Erasmus’s *Adages* contains a pair of figures that provide similar loci for this depiction: *In tuum ipsius malum lunam deduces* (“You will bring down the moon to your own hurt”) and *Lunam detrabere* (“To pull down the moon”). In the first of these, Erasmus notes, “That witches by the use of certain spells could bring the moon down to earth was widely believed in Antiquity.” In support of this claim, he cites Virgil, “Spells can bring down even the moon from heaven,” and Horace, “And by your books of magic, which have power / To loose the stars and call them from the sky.” He notes that the second saying, “originated with Aglaonice daughter of Hegemon, who because of her skill in astrology knew in advance of an eclipse of the moon and boasted that she was going to bring the moon down from heaven to earth. This excessively arrogant declaration was heard by Nemesis who soon took her revenge.”

These female allegorical figures, possessed of mystical power, provided an alternative to the royal authority that Atlas exerted over the heavens, and their connection with the moon offered purchase for both Donne’s portrayal of Galileo and Kepler’s depiction of Fiolhilde. Galileo’s activities, aided by the pope’s “hallowing” of the telescope, suggest the occult power—both in the magical sense and in the sense that he

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130 *Adages* III ii 2, vol. 34, 225; Virgil, *Eclogues* 8.69; and Horace, *Epodes* 17.4–5. The differences between these two quotations suggests the relationship between Donne’s first depiction of Galileo, in which he summons the stars, and the second, in which he draws down the moon. The classification of the moon as a planet in Ptolemaic cosmology, and thus as one of the wandering stars, allows the two quotations to be understood in the same way.
131 *Adages* IV i 59.
132 Kepler cites the same passage from Virgil as one of his inventive sources for Fiolhilde. See above, note 35.
uses methods whose causes are imperceptible—involved in such an effort. By figuring observation with the telescope as able to “draw the Moone, like a boate floating upon the water,” Donne also emphasizes the subtlety of the connection created by observation by adducing a figure reminiscent of Archimedes’ ability to draw great weights by the finest of threads. Donne’s use of the Latin tractare, instead of deduces or detrahere, moreover, suggests a punning secondary interpretation of the figure, one also present in its English equivalent ‘draw’. To draw down the moon also refers to Galileo’s depiction of the mountains and valleys on moon’s surface, if not its “hills, woods, and Cities,” in his original ink-wash sketches and the engraved illustrations of the *Sidereus nuncius* derived from them. This image of Galileo as artist recalls Milton’s epic simile, in *Paradise Lost*, in which he compares Satan’s shield to the moon,

Through Optic Glass the Tuscan Artist views

At Ev’ning from the top of Fesole,

Or in Valdarno, to descry new Lands,

Rivers or Mountains, in her spotty Globe. (I: 288-91)

Milton implicitly draws a parallel between his description of the moon and the *locus classicus* of ekphrasis, Homer’s description of the Shield of Achilles in the *Iliad*. In both cases the close inspection of an object reveals artistic decorations that seem to depict whole worlds.

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134 Wolfe 51.
While the passage in *Ignatius, his Conclave* makes use of contemporary rumours that the Jesuits were engaged in a plan to colonize the moon, Galileo himself, and his attempts to gain papal approval for his discoveries, are mediated in this satirical depiction. This image combines a personification of the effects of the telescope in the figure of Galileo, the mythological reference to witches’ ability to draw down of the moon, and the compressed reference both to the magnifying effects of the telescope and to the pictures of the *Sidereus*. In it, as in Galileo’s productions for the Medici court, Donne transforms the matter of scientific discovery by means of the vocabulary of emblems. He recognizes the consonance between the elaborate depictions of Copernicus and Galileo’s activities. Bringing together the figure of the classical witch, the “approximating” effects of the telescope, and the depictions of the moon in Galileo’s book, he replicates the structure of the satiric depiction of Copernicus using entirely new material. As with depiction of the astronomer as Atlas, it is the apparent felicity of the figures—their fitness and compression as representations—which makes them valuable as emblematic depictions. These “devices” are as much novelties, albeit of a different sort, as the telescope itself, and offer similar pleasure to their recipients, a pleasure that is in part that of discovery inherent to successful metaphor.

**Invention and Interpretation in “The Sunne Rising”**

So far in this chapter, I have discussed inventive reading as a structured reading for future composition. However, the practice of invention also has important implications for modern critical practice. The critical reading of literature in the context

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of scientific discovery is itself a practice of invention, one which, moreover, relies upon similar methods of selection and recombination that both precede and allow interpretive acts. Benjamin Saunders’ account of interpretation in his recent book, *Desiring Donne*, considers the effects of desire upon critical practice. His argument connects desire as a subject of Donne’s poetry with the critical desire that transforms interpretation into the desire to appropriate, to possess its object. This tendency is by no means absent in criticism of Donne’s work which deals with science, though it tends to cloak itself in the identification of particular scientific theories—in other words, it is possessed by the same desire for discovery which Donne and Galileo’s emblematic work exploited. This scientific matter, like other historical or cultural contextual detail, when discovered to the reader by the critic, can be used analogically to structure a reading of the poem. The process of discovery plays upon the early modern sense of the word, producing delight in the reader by the process of uncovering structural parallels.

The potential difficulty with this approach is that, as with Kepler’s reading of Ignatius, his *Conclave*, this correspondence is often invented in the sense of “made,” rather than of “found.” Yet, as my discussion has suggested, in the humanist process of invention, the difference between these two modes is not always apparent, or even important. My focus on the act of invention is intended to suggest the extent to which this mode of reading is aligned with the act of making meaning—that this sort of criticism can also profitably be seen as a form of poiesis. Donne’s production of esoteric texts—texts in which meaning is concealed—encourages a practice of reading in which invention is not merely an adjunct to interpretation, but the crux upon which critical

reading is founded. By placing the emphasis in interpretation on this act of coupling, of yoking together, I draw attention to the critical results of this attention to the structural form that makes links, as science does, between the artificial and the natural.140

William Empson presents a particularly vivid case of this combination of critical desire and the identification of scientific tropes in his essay “Donne the Spaceman.” There he suggests that “Donne..., from a fairly early age, was interested in getting to another planet much as the kids are nowadays; he brought the idea into practically all his best love poems, with the sentiment it still carries of adventurous freedom” (78). Empson transforms autopoetic love poetry from a retreat from the world into a flight to an imagined separate planet, projecting his awareness of the space race of the 1960s onto Donne’s poems. This construction of the process of observation, however, projects the concerns of lovers into the heavens rather than concentrating them on the site from which—the bed in which—that observation takes place. As a result, Donne’s famous description of the ability to “build in sonnets pretty rooms” in the “The Canonization” takes on added significance in the context of the lover’s room in “The Sunne Rising.”

“The Sunne Rising” is an important locus for discussion of Donne’s use of astronomy in his lyric poems. Its depiction of acts of observation interacts productively with all of the major systems of cosmology available at the beginning of the seventeenth century: Ptolemaic, Copernican, and Tychonic. The poem presents two opposing forms and sites of observation in interaction with one another—the room in which the poem is set and the sun gazing in from outside. The apostrophe to the sun, which begins the poem, draws the lovers’ attention away from their bed and reminds them of the

movement of the world beyond the walls of their room. Even as the aggrieved lover tells the “Busie old fool, unruly Sun” (line 1) to leave him and his mistress and instead “goe chide / Late schoole boyes and sowre prentices, / Goe tell Court-huntsmen, that the King will ride, / Call countrey ants to harvest offices” (lines 5–8), the speaker’s act of listing other people and places produces a description of imagined vision from the perspective of the sun. The self-conscious displacement of the site of vision performed in the poem, by which the lovers’ bed becomes the center of the universe, enacts Copernicus’s explanation of the apparent movement of the stars from earth. Imagining the earth from the point of view of the sun, in Copernicus’s scheme, resolves the seemingly errant movement of the planets into orderly circular orbits—or, at least, in the Keplerian scheme, elliptical ones.

However, to project the still point of the cosmos onto the sun is implicitly to set the isolation of the lovers’ room in motion—the motion of the earth that appears so disturbingly in the “Valediction: Forbidding Mourning.” It is this motion that the speaker resists by personifying the sun and setting him on his travels. This “[b]usie” point of vision is contrasted with the lovers’ room, which the poem remakes into a stable center, around which the sun orbits:

Thou sunne art halfe as happy’as wee,

In that the world’s contracted thus;

Thine age askes ease, and since thy duties bee

To warme the world, that’s done in warming us.

Shine here to us, and thou art every where;

This bed thy center is, these walls, thy sphære. (lines 25–30)
The speaker transforms the patches of sunlight which enter through the window and their movement across the surface of the walls into the sun and the sphere within which it travels. As a result, the part of the world “contracted” into the room in this heliocentric scheme is restricted to the earth and those planets ‘beneath’ the sphere of sun: the Moon, Mercury, and, perhaps significantly, Venus.

The tension between these two readings is apparent in their constructedness—a point emphasized by the applicability of the two contrasting viewpoints to the Tychonic system. (Donne’s distinction between the lovers’ bed, around which the sun seems to orbit, and the world of other people, which seems to orbit the sun, reproduces the dislocated double center of earth and sun in Tycho’s system.) Both the personified vision of the sun and the assertion of autonomy by the speaker emphasize the subjective nature of perception. In portraying the imagined vision from the point of view of the sun in combination with the stable point of the lover’s bed, “The Sunne Rising,” like Copernicus’s *De revolutionibus* and Kepler’s *Somnium*, considers the apparent motion imparted to other objects in the cosmos by observation from different vantage points. By doing so, the poem draws attention to the theoretical problem posed by these contrasting astronomical hypotheses: how to derive the physical form of the universe from hypotheses which “saved the appearances.” This emphasis upon system as an organizing principle draws attention to Donne’s use of cosmological systems as places for the invention of metaphors describing the relationship between lovers. The speaker of “The Sunne Rising” uses the geocentric Ptolemaic system to discipline the roving eye of the sun and of the imagination. In doing so, he transforms the lovers’ bed into a separate world, one in which the rising sun does not disrupt their solitude, as in “Breake of Day,” but rather
acts as an external point of reference that can be used to confirm the isolation of their separate place.  

Francis Bacon offers a useful framework for understanding the contrasting acts of observation involved in constructing this isolated space. In his essay, “On Love,” he argues:

> It is a poore Saying of Epicurus, *Satis magnum Alter Alteri Theatrum summus*: as if Man, made for the contemplation of Heaven, and all Noble Objects, should doe nothing, but kneele before a little Idoll, and make himselfe a subject...of the Eye; which was made for higher Purposes.  

Bacon’s comments alert the reader to the exclusivity of mutual attention implied by Epicurus’ sentence. This claim, that “we are each a great enough theatre for the other,” suggests the comprehensive variety of sites (and sights) available to lovers exploring each other. Epicurus’ use of the term theatre that suggests the autopoietic space available to the lovers is potentially one in which the sites of the body correspond to and replicate the wider world. Bacon disagrees, arguing that such mutual contemplation distracts from man’s more noble purpose—the contemplation of the heavens and, by implication,

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Heaven. Any resulting attention, as Bacon’s use of the term Idol suggests, is both irreligious and misleading.\textsuperscript{144}

The trope of the microcosm is, perhaps, most familiar in Donne’s “To his Mistress Going to Bed” (Elegy XIX). In that poem, the speaker explores both his lover’s clothes, her “girdle, like heavens Zone encompassing” (line 5), and her body, apostrophized as, “O my America, my new-found land” (line 27), before making a plea for mutual examination by stripping off his own clothes. However, Donne’s repeated use of astronomical imagery in defining the relationship between lovers places a burden of meaning upon even the most oblique references to the heavens when read across his poetry as a whole. For example, in “Sappho to Philaenis,” Sappho describes the fluidity of sex between women in this way: “But of our dallyance no more signes there are, / Then \textit{fishes} leave in streames, or \textit{Birds} in aire” (41–2). This phrase on its own is suggestive of not only the lack of betraying tracks—unlike men, who are compared to “thieves...who rob when it snows” (line 40)—but of the freedom of their embraces. However, because the phrase “like birds in the air, or fish in the sea” was regularly used in reference the movement of the planets in the fluid heavens of Stoic astronomy it accrues additional meaning. Unlike the regular, purposeful motion of the planets safely fastened to the Ptolemaic crystalline spheres, which moved only “as a knot in board, or a nail in a wheel,” the planets in the Stoic system, which were guided by intelligences, provoked the anxiety that they were not constrained to their assigned courses and might wander at will.\textsuperscript{145} The resulting image of sex between women is one in which libertinism is understood as a

\textsuperscript{144} “On Love” first appears in the 1612 edition of the \textit{Essays} and remains largely unchanged in the 1625 edition, issued after his formulation of the Idols of the Mind in his \textit{Novum Organum} (1620).

\textsuperscript{145} On stoic cosmology, see Lattis 94–102.
literal freedom of motion, especially when compared to the mechanical rutting of heterosexual activity. This libertinism is also apparent in Donne’s use of the same metaphor in “Loves Progresse” (Elegie XVIII), where the speaker approaches his mistress via a reversed blazon, beginning at the feet:

> For as free spheres move faster far then can
> Birds, which the air resists, so may that man
> Who goes this empty and AEtherial way,
> Then if at beauties elements he stay. (lines 87-90)

The progress of this blazon performs an imaginary exploration not only of the female body, but also of the cosmos, like the dream visions to which the opening of Donne’s *Ignatius, his Conclave* alludes. The path of imaginary movement is chosen precisely because of the lack of sites upon which the speaker might fix himself, as well as because of the lack on which he is fixated. These empty spaces, moreover, are defined by and define the sites of the body, by touch as much as by vision.

These acts of astronomical exploration within the microcosmic confines of lovers’ bodies reemphasize the importance of the bedroom as a site of observation that contextualizes the explorations performed within its confines. In Donne’s aubade poems, the rising of the sun and the moment of parting bring amorous love and the observation of solar movement into conjunction. Observing at dawn from their bedroom brings the lovers into precise relation with the rest of the cosmos—a conjunction that dislocates this separate place. In “The Sunne Rising,” the speaker not only attempts to resist the constraining movements of the sun, asking “Must to thy motions lovers seasons run?” (line 4), but argues against the mathematization of those movements by the processes of
precise observation: “Love all alike, no season knowes, nor clime, / Nor houres, dayes, monthes, which are the rags of time” (lines 9-10). Attention to passing time turns the room which was meant to be a retreat from the world into an observatory, like that of Tycho Brahe at Uraniborg, where the altitude of the sun and stars is seen through a small slit in the wall and measured by at point marked on the instrument within. Calculations of the precise place of the sun in the heavens at dawn were particularly important in this scheme because its progress through the signs of the zodiac marked the turning of the year. However, like the “eight and forty sheers” (line 258) into which the firmament is torn in the *Anatomy of the World*, the process by which astronomical observation makes time by a series of discrete observations tears apart the seamless experience of love.

In contrast, the last stanza of his “Valediction: of the Book” offers a different, disjunctive site of observation—one which defines the relationship of the speaker and his beloved as a result of their separation. The speaker constructs his destination as a place from which astronomical observation allows the observer to calculate the strength of mutual love:

...abroad I'll studie thee,

As he removes farre off, that great heights takes;

How great love is, presence best tryall makes,

But absence tryes how long this love will bee;

To take a latitude

Sun, or starres, are fitliest view'd

At their brightest, but to conclude

Of longitudes, what other way have wee,
But to marke when, and where the darke eclipses bee? (lines 55-63)

Donne here uses descriptions of the processes by which latitude and longitude are calculated to distinguish between the strength and duration of love. While the process of taking latitude by measuring the height of the sun at midday is comparatively simple, the precise calculation of longitude was exceptionally difficult in the seventeenth century—indeed, an efficient method of determining longitude was not devised until the perfection of a reliable sea-borne chronometer during the eighteenth century. The only effective method was to await an eclipse of the sun in a given location, where, by determining the precise time of the eclipse, the longitude could be calculated. Distance, as a result, becomes a opportunity for observation because it allows for comparison. While, in the aubade poems, the close darkness of their room allows lovers to locate each other, their closeness in that confined location prevents precise observation.

Like the processes of invention that I have tracked throughout this chapter, these different templates for observation demonstrate the malleability and versatility of allegorical images of astronomical knowledge-making. Donne’s use of these images in *Ignatius, his Conclave*, suggests his precise understanding of the issues at stake in astronomical debates after the publication of the *Sidereus nuncius*. Donne’s opinion as to the relative merits of different predictive hypotheses and physical descriptions of the cosmos remain unclear. What is clear, however, is his conception of the structural nature of Copernicus’s achievement as an ordering scheme which might be ‘appliable’ both to the heavens and to other subjects. Thus, in *Ignatius, his Conclave*, Ignatius accuses Copernicus of plagiarism in terms which draw attention to the form of his system:
But your inventions can scarce bee called yours, since long before you, Heraclidea, Ecphantus, & Aristarchus thrust them into the world: who notwithstanding content themselves with lower roomes amongst the other Philosophers, & aspire not to this place, reserved onely for Antichristian Heroes: neither do you agree so wel amongst your selves, as that you can be said to have made a sect, since as you have perverted and changed the order and Scheme of others: so Tycho Brachy hath done by yours, and others by his. (19)

Ignatius’ accusation turns upon the inventive process by which Copernicus formulated his theory. He suggests that Copernicus did not merely adduce the arguments of Heraclides, Ecphantus and Aristarchus as support for his theory, but instead used them as its basis. As a result, Copernicus’s discovery is reduced to an act of invention, one parasitic upon previous conceptual work. Ignatius drives this point home by noting the observational equivalency of Copernicus and Brahe’s systems. Copernicus’s perversion of “the order and Scheme” of others is proved by the ability of others to pervert and change his work. If Donne’s description of Copernicus is perverse in turn, it is so because his infernal reading of contemporary astronomy cares little that “those opinions...may very well be true” (17). Donne has made the Copernicus, the Galileo, the Kepler and the Ignatius he desires.
Let us begin with an awakening. In “The Good Morrow,” Donne reverses the conventions of aubade poems, such as the “The Sunne Rising” and the “Break of Day,” which I discussed in the closing section of the previous chapter. Instead of a literal daybreak that threatens to separate the two lovers, the second stanza of the poem offers a metaphoric daybreak. This moment of awakening marks not the end of a tryst, but a beginning when two souls discover their mutual love:

And now good morrow to our waking soules,
Which watch not one another out of feare;
For love, all love of other sights controules,
And makes one little roome, an every where.
Let sea-discoverers to new worlds have gone,
Let Maps to other worlds on worlds have showne,
Let us possesse one world, each hath one, and is one. (lines 8-14)

As in “The Sunne Rising,” the little room of the bedchamber is transformed by love into a microcosm of the outside world. The act of discovering the beloved within that space is compared to the acts of discovery that we have come to associate with the so-called Scientific Revolution: the discovery of the New World by Columbus and the discovery of new worlds in the heavens by Galileo. These new discoveries signal the problematic passage from the old age to the new one. The resulting epistemic break is marked by the
gap between the first and second stanzas, by the transition between the unknowing, sleeping soul before love, and the waking soul after its discovery.\textsuperscript{146}

The different worlds presented in the first and second stanzas complicate the poem’s depiction of new love. Love leaves behind not only the childish “country pleasures” (line 3) of crude pastoral and carnal love, but also a profoundly different religious era. When the speaker asks, “snorted we in the seven sleepers’ den?” (line 4), the allusion to the legendary Seven Sleepers of Ephesus draws a parallel between the new awareness of love and the transition between the pagan and Christian worlds. As the version of the story in the \textit{Golden Legend} tells us, the early Christians who supposedly immured themselves in a cave in order to escape persecution during the reign of the Emperor Decius awoke centuries later to discover a new era of peace in which Christianity had triumphed.\textsuperscript{147} The story of their miraculous survival highlights the difference between waking and sleeping knowledge by comparing the transition between these states to the disjunction between different eras of the Church. The poem’s discordant frames—the religious frame in the first stanza, which projects itself forward into the rest of poem, and the scientific frame of the second stanza, which the reader applies backwards onto the beginning—dramatize the seeming incommensurability of experience before and after falling in love.


\textsuperscript{147} The seven sleepers appear in a number of sources, including Gregory of Tours, Paul the Deacon’s \textit{History of the Lombards}, and Jacobus de Voragine’s \textit{Golden Legend}. 
The third and final stanza of the poem resolves these historical and perceptual disjunctions by presenting an image of wholeness in which the old and the new are combined:

My face in thine eye, thine in mine appears,
And true plain hearts do in the faces rest;
Where can we find two better hemispheres,
Without sharp north, without declining west? (lines 15-18)

The two hemispheres of the old and new world reappear overlaid upon each other. This image of reciprocal discovery contrasts to the depiction of exploration in “On his Mistress Going to Bed,” in which only the woman is described as “O my America! My new-found land!” (line 27). Here, each lover is a new world for the other, “each hath one, and is one” (14). Only when this new world is read in relation to the old—seen reflected in the eye, while observing the lover’s face—do the two make up a whole."

Donne echoes this figure in a 1622 sermon, in which he uses the metaphor of a map to explain the process of reading historically. In the sermon, he describes the relationship between the old and new worlds as similar to the relationship between antiquity and his own day:

to make these two parts, I consider the Text as the two Hemispheres of the world, laid open in a flat, in a plaine map. All those parts of the world which the Ancients have used to consider, are in one of those Hemispheres; All Europe is in that, and in that is all Asia, and Afrike too: So that when we have seene that

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Hemisphere, done with that, we might seeme to have seene all, done with all the world; but yet the other Hemisphere, that of America is as big as it; though, but by occasion of new, and late discoveries, we had had nothing to say of America. (4.7, 181)

The image of the two hemispheres “laid open in a flat, in a plaine map” suggests the simultaneous separation and coextensiveness not only of Europe and America, but also of antiquity and modernity. The abstractions of cartography, as practiced by mapmakers like Mercator, enabled the depiction of the round globe on a flat surface. In this form, the two hemispheres of the old and new worlds appeared separated, with their boundaries marked by the contraction to a single point at the north and an abrupt drop off in the west. In reality, however, these abstractions of geography are continuous, rather than separate, as the flat surface of the map makes “plaine.”

Donne draws attention to this continuity between old and new as part of a metaphor for interpretative reading:

the first part of our Text, will bee as that first Hemisphere, all which the ancient Expositors found occasion to note out of these words, will be in that: but by the new discoveries of some humors of men, and rumors of men, we shall have occasion to say, somewhat of a second part to [sic]. (4.7, 181)

He distinguishes between the “explication of the wordes, and the Application, Quid tunc, Quid nunc,” between what the words meant then, “the Literall, the Historicall sense” and “an emergent, a collaterall, an occasional sense of them” (4.7, 181). Just as, in “The Good Morrow,” the understanding of one’s lover is only possible in the context of an

150 For commentary on this passage, see Maria Salenius, “‘Halfe will be Joy, and Halfe will be Glory’: Donne’s Reconceptualisation of the Other,” John Donne Society Conference, 2008; and Richard Sugg, “Adding to the World: Colonial Adventure and Anxiety in the Writings of John Donne” (2002).
understanding of the self, any use of a text is only possible in the context of historical interpretation. The new, even when it is innovative and disjunctive, is dependent on the old. Donne’s conception of newness at the beginning of the seventeenth century, particularly the relationship between history and interpretation, between the classical and the early modern world, and between religious and scientific thought, is the subject of this chapter.

These concerns with the transition between the old world and the new are developed most fully in Donne’s prose satire, *Ignatius, his Conclave*, which dramatizes arguments over authority in the Western Church in the context of the religious and scientific turmoil of the period. Donne presents an account of innovation and counter-innovation in which secular innovators such as Copernicus, Paracelsus and Machiavelli are contrasted with and opposed by the innovative efforts of the Church of Rome, and the Society of Jesus in particular. In doing so, Donne attacks the unstable foundations of religious authority by drawing attention to the rupture between ancient and modern—between classical and modern learning, and between the apostolic and the contemporary Church. This polemic attack is based on a historicized conception of innovation that is informed by developments in the fields of history and chronology during the late sixteenth and early seventeenth centuries, and the satire functions as a commentary upon the humanist work of organizing and coordinating scientific and religious schemes of time.

The struggles of the Reformation and Counter-Reformation offered different chronologies of the originary crises in the Church. Where the papacy insisted upon its descent from Peter and figured the heresies of Wycliffe, Huss and Luther as false
innovations, the Protestant confessions claimed that it was the Church’s corruption that necessitated reform and, moreover, that the Council of Trent marked a moment of further deviation from these apostolic roots.\textsuperscript{151} \textit{Ignatius, his Conclave} is involved in these arguments via its close connection to \textit{Pseudo-Martyr}, Donne’s serious polemic work in support of King James in the controversy with Cardinal Bellarmine.\textsuperscript{152} In \textit{Pseudo-Martyr}, Donne presented an argument in support of the Oath of Allegiance based on the claim that those who died resisting royal authority were mistaken in the claim that they were martyrs. Donne’s argument in \textit{Ignatius, his Conclave} directs itself against the innovations of Bellarmine’s order, the Society of Jesus, but does so in the context of the ongoing controversy. The controversy between King James I and Cardinal Bellarmine, and by extension the conflict between papal and regal authority, is thus the basis of the argument of \textit{Ignatius, his Conclave}.

Donne’s parodic depictions of innovation place these religious arguments alongside contemporary disputes over new knowledge in astronomy, medicine, statecraft and other fields, particularly histories of invention and innovation. This wider perspective on Donne’s conception of new knowledge comes at a very significant moment both for his writing and for the Copernican “new Philosophy.” His deployment of a historicized understanding of innovation, which reads the new astronomical work of Copernicus, Kepler and Galileo in the context of innovators from different fields and time periods, challenges assertions about the uniqueness of the shock provoked by the astronomical

\textsuperscript{151} For these issues in the context of Donne’s work, see Jeffrey Johnson, “John Donne and Paolo Sarpi: Rendering the Council of Trent” (2003).
\textsuperscript{152} On the controversarial context of \textit{Ignatius, his Conclave}, see Healy, “Introduction” xvii-xxix; for an overview of the arguments and texts, see Peter Milward, S. J., \textit{Religious Controversies of the Jacobean Age: A Survey of the Printed Sources} (1978) 72-136.
discoveries of the Scientific Revolution. Instead, as Peter Dear has suggested, arguments over scientific knowledge were bound up in the controversy over religious authority and innovation, and, in particular, the status of scripture as a source of knowledge about the natural world. The confrontation between scientific and religious figures in *Ignatius, his Conclave* directly addresses this connection, opposing secular and religious figures across the whole spectrum of early modern knowledge, and insistently questioning and undermining the foundations upon which they have constructed their authority.

In what follows, I first discuss Donne’s conception of history in his poem, the “Valediction: to his Book.” Second, I relate this understanding of historical work to the depiction of classical authority and its mediation of the knowledge of antiquity in the context of early modern controversies over the new Jesuit order and the authority of the Catholic church. Third, I consider the controversial argument of *Ignatius, his Conclave* in the context of several early modern accounts of innovation: Stradanus’s *Nova Reperta* (ca. 1580), Polydore Vergil’s *De Inventoribus Rerum* (1499 and 1521), Guido Panciroli’s *Rerum memorabilium* (1599), and part of Johannes Kepler’s *De stella nova* (1606). I suggest that by examining Donne’s use of histories drawn from this tradition, we gain a new view of his chronological sense that allows us to historicize in Donne’s work such retrospective constructs as the Renaissance, the Reformation and the Scientific Revolution. Finally, I discuss Donne’s parodic portrayals of innovators in the context of euhemeristic interpretations of mythology. I contextualize my account of inventive reading in the previous chapter by examining the historical underpinnings the mythological portrayals of Copernicus, Paracelsus, and Machiavelli. I consider the

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parallels between this method of historical interpretation and Donne’s satirical method in relation to the newly beatified Ignatius, the semi-deified Queen Elizabeth, and the lovers depicted in “The Canonization.”

Donne, History and Innovation

Donne’s Latin prose satire, *Conclave Ignatii* (1610), and its English translation, *Ignatius, his Conclave* (1611), are centrally concerned with innovation: the idea of something that is new and definitely different from the past. The idea of history on which *Ignatius* is based is strikingly different from the conceptions that have traditionally dominated Donne scholarship. Achsah Guibbory and Jeremy Maule have provided two valuable accounts of Donne’s relationship to history and historiography. Guibbory’s book, *The Map of Time*, offers a series of early modern schemes for understanding the past—in terms of progress, decline, and cyclical ages—read in the works of seventeenth-century writers, including Bacon, Donne, and Milton. Her nuanced reading, which resists reductive categorization, argues that Donne makes use primarily of images of decline, focusing upon the depictions of the decaying world that are indisputably predominant in his writing. However, this identification depends on a reading of works in which the trope of *mundus senescens* serves the rhetorical ends of the work, as in the *Anniversaries*, the *Devotions upon Emergent Occasions*, and many of the *Sermons*. *Ignatius, his Conclave*, however, offers a different view of Donne’s relation to historical writing—one still marked by declension, but founded upon a concern with the transition

between one cycle of history and the next, with the disjunction between classical and modern knowledge, and between spiritual and temporal authority.

In “Donne and the Past,” Maule presents a careful assessment of Donne’s use of history in his prose works, including *Ignatius, bis Conclave*. He suggests that while Donne shows a critical attention to the claims of historical writing, Donne’s failure to identify a positive model for historical writing implies that he had little use or respect for the genre. Yet, as I argue in this chapter, Donne’s approach replicates the sustained philological scrutiny of sources that characterized the new chronological work of the late sixteenth century. A close reading of *Ignatius, bis Conclave* suggests that the argument of Donne’s satire is shaped by the influence of two historical sub-disciplines, historical chronology and the history of innovation, thereby providing a more positive view of Donne’s understanding of historical writing.

The late sixteenth and early seventeenth century saw important improvements in the techniques of historical chronology, particularly in the work of Julius Justus Scaliger. The presence of a copy of Scaliger’s *De emendatione temporum* (1583) in Donne’s extant library—along with several other works on chronology, such as Kepler’s *Ecologae Chronicae* (1615)—suggests Donne’s familiarity with and interest in these topics. Historical chronology concerned itself with the reconstruction of calendars and the attempt to attribute firm dates to historical events. It developed from the conjunction

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156 See Keynes, *A Bibliography* (1973) 275, L161; 271, L107. See also, Donne’s copy of Thomas Lydiat, *Recensio et Explicatio Argumentorum productorum libello Emendationis Temporum compendio factae* (1613), Keynes 271 (L114).
of two disciplines: astronomical calendrical work, particularly the medieval art of the
*computus*, which coordinated the relationship between the movements of the heavens and
the calendar; and the philological dating of texts and authors, which used linguistic
evidence to establish the relationship between different texts and variant copies of the
same text. As a discipline, chronology offered unrivalled access to providential history and
served as an elaborate framework for the organization of historical knowledge.

Donne’s “Valediction: of the Book” provides a particularly useful place to consider
his understanding of the techniques and purposes of historical writing, and its
relationship with the critical work of both philology and chronology. In the previous
chapter, I briefly considered the last stanza of the poem as a site of observation, in which
the relationship of the speaker and his beloved is defined by their separation. This
description of the astronomical observation of the noonday sun and of eclipses as a means
of determining distance is connected to the first part of the poem by the mutual
dependence of both sections on history, and its sub-discipline chronology. As I noted,
although the act of determining latitude was comparatively simple, the observation of
eclipses remained the only reliable method of calculating longitude. However, this
practice was useful not only for the purposes of navigation, but also offered one means by
which a firm chronology could be established. The complexities of ancient and modern
calendrical computation and their unreliable relationship to the movement of the stars
posed important difficulties for both the establishment of firm historical dating and
astronomers’ use of historical observations of the heavens. Eclipses and conjunctions
provided observable events that might, with the proper calculations, allow the faulty
historical record to be amended. In this way, chronology brought together the muses Clio
and Urania, finding methods for the use of historical material in astronomy, and vice versa.

The “Valediction: Of the Book” reconfigures the humanist project of returning \textit{ad fontes}, transforming it into a method for ameliorating the pain caused by the separation of lovers. It depicts the relationship between two contrasting methods of historical work: the “annales” written by the female addressee and the observation of the heavens by the male speaker. Both sorts of work were part of the humanist project of renovation intended to bridge the gap between the antique and modern world by creating a continuous historical record, unbroken by the ruptures of barbarian invasions, the loss of learning, and the fall of Empire. The speaker in the poem instructs his beloved,

\begin{quote}
I'll tell thee now (deare love) what thou shalt doe
To anger destiny, as she doth us,
How I shall stay, though she does Esloygne me thus
And how posterity shall know it too, (1-4)
\end{quote}

Separation, here, is a function both of distance and of time: though fate may “Esloygne” the speaker—draw him away—writing offers a distraction from this separation and a means by which that love may itself be drawn out, by which, the speaker claims, “posterity shall know” of their love. Moreover, her composition of a book would not only inscribe the lovers into history, but also provide the basis for her fame when compared with mythological accounts of female writing:

\begin{quote}
...thine may out-endure
Sybills glory, and obscure
Her whom from Pindar could allure,
\end{quote}
And her, through whose helpe Lucan is not lame,
And her, whose book (they say) Homer did find, and name. (5-9)

These legends of female authorship are themselves historically problematic. Each attests to the knowledge lost through the passage of time, but also points to the usefulness of reliable history and unreliable myth. On one hand, the unreliability of these legends about authorship asserts the value of written work, suggesting that a more perfect and stable transmission of written work from the classical period would have preserved the work of these female authors. On the other hand, the potentially false information transmitted as myth is useful for rhetorical purposes: whether or not these stories of women authors who outdid their male counterparts were ‘true,’ they are valuable because of the encouragement they provide to the addressee of the poem.

Both reading and writing are central to the poem’s conception of history based upon textual sources. The speaker encourages his lover to, “Study our manuscripts, those Myriades / Of letters, which have past twixt thee and mee,” and “Thence write our Annales” (10-12). The loss of classical and biblical knowledge presents parallel forms of rupture that Renaissance humanism sought to overcome. History, throughout the first three stanzas of the poem, provides a source for knowledge because of the examples it contains. The annals of their love are valuable to their readers because, “in them will be / To all whom loves sumbliming fire invades, / Rule and example found” (12-14). These annals also act as a repository for heterogeneous knowledge that is incidental to its putative subject. The poem idealizes the transmission of knowledge in written form, describing the book as, “as long-liv’d as the elements, / Or the worlds forme”
(19-20). The annals offer a defense against the moment of catastrophic rupture that divided the classical from the modern world. “When this booke is made thus, / Should again the ravenous / Vandals and Goths invade us, / Learning were safe” (23-6), because they contain within themselves a secondary world filled with knowledge: “in this our Universe / Schools might learne Sciences, Spheres Musick, Angels Verse” (lines 26-7). Such a history is not only a defense against secular disruptions, but also religious and cosmic ruptures, providing a source that will be resistant to theological misinterpretation because it resembles divine revelation:

    There, the faith of any ground

    No schismatique will dare to wound,

    That sees, how love this grace to us affords,

    To make, to keep, to use, to be these his Records. (lines 15-18)

In each of the fourth through sixth stanzas, the poem considers the usefulness of the “book” to different professions: divines (28-36), lawyers (37-45), and statesmen (46-54). Each group is confronted by different versions of the problem of interpretation in the final lines of each stanza, as they seek to understand the information encoded within the book—“this all-graved tome / In cypher writ, or new-made Idiome” (20-1). Their success depends upon the usefulness of a history of love as an example for their chosen topic: divines engage in typological reading, which offers a foretaste of what is to come (“For, though minde be the heaven, where love doth sit, / Beauty a convenient type may be to figure it,” lines 35-6); lawyers find only illusions (“And for the cause, honour and conscience give, / Chimeras, vaine as they, or their prerogative,” lines 44-5); and
statesmen read out matter that is not there (“In this thy booke, such will their nothing see, / As in the Bible some can finde out Alchimy,” lines 53-4). For all the earlier claims that the book provides a secondary world filled with knowledge, the value of that knowledge is problematized by these accounts of misinterpretation.

The transition between history and astronomy at the beginning of the last stanza suggests the difficulties of these attempts to deal with the lovers’ separation. Just as the speaker worries that to “conclude / Of longitudes, what other way have wee, / But to marke when and where the dark eclipses bee” (61-3), his addressee cannot contain the worries of her imagination, but must “vent” them in writing. Both lovers can approach each other only indirectly, via memory and texts, by observation and calculation. Moreover, like history or astronomy, these solitary products are useful to the maker only as distractions—only in the hands of others do they become useful, enabling the gap that had opened up between past and present to be closed once more.

**Dialogues with the Dead: Hell as a site of History**

Like “The Good Morrow” and the “Valediction: of the Book,” *Ignatius, his Conclave* is centrally concerned with historical difference. As I noted in the previous chapter, Donne depends for this narrative frame on the dream visions of Menippean satire. His attack on the Jesuits is framed like the imaginative excursions of Lucian’s *Icaromenippus* and *Menippus*: first ascending to the heavens, then descending into hell. The change of site is signalled by a passage of poetry:

> When I had surveid al the Heavens, then as
>
> *The Larke by busie and laborious ways,*
Having climb’d up th’etherial hill, doth raise

His Hymnes to Phoebus Harpe, And striking then

His Sailes, his winges, doth fall downe back agen

So suddenly, that one may safely say

A stone came lazily, that came that way,

In the twinkling of an eye, I saw all the roomes in Hell open to my sight. And by the benefit of certaine spectacles....

The dream vision of Ignatius, his Conclave abandons the perspective gained from the “etherial” hill of truth, from which vision is the primary source of knowledge, exchanging it for the very different medium of conversation in Hell.

Donne draws explicit attention to this connection by framing the satire not just as a vision, but as a particular sort of fallacious Catholic vision. He claims that in his dream,

In the twinkling of an eye, I saw all the roomes in Hell open to my sight. And by the benefit of certaine spectacles, I know not of what making, but, I thinke, of the same, by which Gregory the great, and Beda did discerne so distinctly the soules of their friends, when they were discharged from their bodies, and sometimes the soules of men as they knew not by sight, and of some that were never in the world, and yet they could distinguish them flying into Heaven, or conversing with

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Donne, Ignatius, his Conclave 7:

—operoso tramite scandens
Aethereum montem, tangens vincina solis,
Hymnos ad Phoebi plectrum modulatur Alauda:
Compressis velis, tandem ut remearet, alarum,
Tam subito recidit, ut saxum segnius isset. (6).

living me, I saw all the channels in the bowels of the Earth; and all inhabitants of all nations, and of all ages were suddenly made familiar to me. (*Ignatius* 7–9)

These descriptions undermine Gregory and Bede’s positions as pillars of the Roman and English churches by drawing attention to the visions of Hell which appear in their writings: Gregory’s *Dialogues* and Bede’s *History of the English Church*. Implicitly, Donne suggests that the visions of hell that Bede included in his account compromise the reliability of his work as a whole.\(^ {158} \) In Gregory’s case, the accusation is more direct, referring to his redemption of the Emperor Trajan.\(^ {159} \) Like the story of the Seven Sleepers, these glasses look back to the originary period of Christianity under Rome, from the perspective of the seventh and eighth centuries, respectively. Donne’s retelling of the story of Gregory and Trajan, near the end of *Ignatius, his Conclave*, emphasizes these connections. There he notes,

> *Pope Gregory* were strucken by the Angell with a perpetuall paine in his stomach and feet, because hee compelled *God* by his praiers, to deliver *Trajan* out of *Hell*, and tranferre him to *Heaven*; and therefore *God*, by the mouth of *Gregorie*, tooke an assurance for all his *Successours*, that they should never dare to request the like againe. (89)

Gregory’s pleas on behalf of Trajan—in particular his promise never to make a similar request—offer a model for the relationship between classical and late antique Rome, as


\(^ {159} \) See, Joan M. Petersen, *The Dialogues of Gregory the Great in Their Late Antique Cultural Background* (1984).
well as between the early Church and its successors. This attack directs the reader’s attention to concerns about the doctrine of Purgatory, a reference made all the more pointed by Donne’s citation of Cardinal Bellarmine’s treatise on the subject as his source. By drawing attention to Bellarmine’s own opinion that the story is untrue, he reinforces his own imputation of falsehood.¹⁶⁰

Donne’s use of these distorting spectacles to frame the dream vision foregrounds the magnified but restricted vision of the world available through the lenses of Gregory and Bede while drawing the attention of his auditors to their own historical situatedness. Donne re-emphasizes the falsity of this vision when Copernicus first appears in the poem:

> By this I knew it was Copernicus: For though I had never heard ill of his life, and therefore might wonder to find him there; yet when I remembred…that as I yet used Gregories and Bedes spectacles, by which one saw Origen, who deserved so well of the Christian Church, burning in Hell, I doubted no longer, but assured myself that it was Copernicus which I saw. (13)

As the reference to Origen suggests, the restricted vision of “Gregories and Bedes spectacles” draws attention to Donne’s awareness of the historicity of Christian traditions. The condemnation of Origen to Hell implicitly critiques papal excommunication and identification of heresy, as well as the issuing of indulgences, by asking how the church is able to identify those condemned to Hell, except by means of some sort of spiritual vision. Donne makes a similar argument concerning Dante’s condemnation of Pope Celestine (*Purgatorio* X.68.) in a letter to Sir Henry Goodyer. He writes,

¹⁶⁰ Donne cites “Bellarmine *de Purgat. L.* c. 8.” See *Ignatius*, 89.
Even when I begun to write these I flung away Dant the Italian, a man pert enough to bee beloved and too much to be beeleeved: it angered me that Celestine a pope far from the manners of other popes, that he left even their seat, should by the court of Dants witt bee attack and by him throwne into purgatory. And it angered me as much, that in the life of a pope he should spy no greater fault than that in the affectation of a cowardly securyty he slipt from the great burthen layd upon him.\textsuperscript{161}

Donne’s critique depends upon a valuation of the papacy that differs significantly from that of Dante. To Donne, Celestine’s lack of ambition, which sets him apart “far from the manner of other popes,” is in no way reprehensible, whereas for Dante papal \textit{virtù} is associated with activity on behalf of the faith. Donne’s opposition to these visions of Hell—whether those recorded by Gregory and Bede, or those that appear in the \textit{Divine Comedy}—stems from the implicit claims made by their authors to moral judgment. In the case of the supposedly historical accounts of Gregory and Bede, these visions appear as dubious miracles that undercut the texts’ claims to veracity. Their authority is as unreliable as the mendacious excuses of sinners trapped in Hell.

Like these visions and other dialogues with the dead, \textit{Ignatius, his Conclave} allows Donne to stage conversations among a series of historical and mythological figures, in which the interlocutors personify complex philosophical and controversarial positions. This series of dialogues takes place in the inmost room of Hell, where Ignatius stands at Lucifer’s side, by merit of the innovations associated with the Jesuits:

\textsuperscript{161} Coffin ed., \textit{Complete Poetry and Selected Prose of John Donne} 379.
Proceeding therefore to more inward places, I saw a secret place, where there were not many, beside *Lucifer* himselfe; to which, onely they had title, which had so attempted any innovation in this life, that they gave an affront to all antiquitie, and induced doubts, and anxieties, and scruples, and after, a libertie of beleeving what they would; at length established opinions, directly contrary to all established before. (9)

As Donne makes clear, innovation undercuts knowledge by progressively undermining its certainty: doubts lead to anxiety, anxiety to scruples, and scruples to a liberty of belief. This liberty destroys the foundations of knowledge, established in antiquity, allowing a complete reversal of opinions, such that they are “directly contrary to all established before.”

*Ignatius, bis Conclave* depicts this series of unstable claims to authority based upon innovation, beginning with Gregory and Bede, and progressing through Mohammed and Pope Boniface III, up to Ignatius and his heirs. While the satire figures innovation as primarily religious, it contrasts these figures with a series of secular innovators:

not onely such endeavoure to come, as have innovated in matters, directly concerning the soule, but they also which have done so, either in the Arts, or in conversation, or in any thing which exerciseth the faculties of the soule, and may so provoke to quarrelsome and brawling controversies: For so the truth be lost, it is no matter how (13).

Such innovation is closely associated with the transition between ages of the world. This trajectory establishes the primary break in late antiquity, suggesting that only the Reformed Church can reconnect with early Christianity. The narrator notes that,
the gates [to Lucifer’s chambers] are seldome opened, nor scarce oftner then once in an Age. But my destiny favoured me so much, that I was present then, and saw all the pretenders, and all that affected an entrance, and Lucifer himselfe, who then came out into the outward chamber, to heare them pleade their owne Causes. (13)

This series of pretenders to a place beside Lucifer make up the sequence of dialogues that present a hierarchy of innovation, in which three figures are given precedence: Copernicus, Paracelsus, and Machiavelli. Each offers a parodic account of his own innovations, to which Ignatius replies at increasing length, defending the Jesuits’ preeminent position as innovators who bring souls to Hell, in the process providing exculpatory evidence for his interlocutors. After Ignatius’ long response to Machiavelli, a crowd of other innovators appears, among whom three more figures—Columbus, Aretino, and Philip Neri—offer further opportunities for satiric attacks.

The satire’s structure of innovation and Catholic counter-innovation does not replicate the conflict between Protestants and the Church of Rome. Rather, like Donne’s portrayal of the relationship between the College of the Sorbonne and Rome, which “did never agree, and never meet, but [...] did ever abhorre one another, and ever / Resemble Janus with a diverse face” (5), these seemingly opposed innovators are part of the same systemic problem. While Copernicus’ new system may or may not be true, Clavius’ calendrical innovations are more ill-founded; Paracelsus may be a fraudulent, homicidal physician, but the offenses of the Jesuit doctors are more harmful; and, Machiavelli may offer a new and immoral form for the state, but the Jesuits do so for the Church. By setting this argument in the context of historical and chronological work, I hope to
suggest what was at stake not only in Donne’s framing of his satire of Jesuits as an attack upon inappropriate innovation, but for his understanding of new-ness at the beginning of the seventeenth century.

The contest between innovators staged in *Ignatius, his Conclave* is seen in contrast to that which occurred at the end of the previous age, when “Pope Boniface 3, and *Mahomet*, seemed to contend about the highest roome. Hee gloried of having expelled an old Religion, and *Mahomet of having brought in a new: each of them a great deluge to the world” (9). Donne claims that Boniface gained precedence over the founder of Islam, because he “had not onely neglected, but destroyed the policy of the State of *Israel*, established in the old *Testament*, when he prepared *Popes* a way, to tread upon the neckes of *Princes*” (11). As a result of Boniface’s abrogation of authority, his “successors, awakend by him, have ever beene fruitfull in bringing forth new sinnes, and new pardons, and idolatries, and King-killings” (11).

*Ignatius, his Conclave* reinforces the argument of *Pseudo-Martyr* by drawing attention to the recent assassination of Henry IV of France by the monk Ravillac (1610) as well as to the Gunpowder Plot (1605). Like many of his contemporaries, Donne accuses the Jesuits of complicity with these acts. While the order as a whole did not organize or sanction these killings, the circumstances were prejudicial to any attempt to clear themselves of responsibility in the court of public opinion. Not only could accusers point to the involvement of Henry Garnet, who acted as confessor for one of the Gunpowder plotters, but they also were able to draw attention to the treatise by the Spanish Jesuit, Juan de Mariana, *De rege et regis institutione* (1599), which included a section supporting tyrannicide in certain situations. However, Donne’s use of arguments
about regicide is not a unifying theme, as T. S. Healy contends, but rather one aspect of a
dearer argument concerning the relative authority of church and state. It is in this
context that Donne portrays the Jesuits as the ultimate expression of attempts by the
Catholic Church to usurp secular authority.

Donne’s accusation of innovation is characteristic of attacks on Jesuit, and more
generally Catholic, authority in the wake of the Council of Trent. Ignatius, his Conclave
was only one of a series of late sixteenth- and early seventeenth-century satirical texts
directed at the Jesuits, such as Johannes Cambilhom’s Discoverie of the Most Secret and
Subtile Practises of the Jesuites (1608), Cesar de Plaix’s Le passe partout des Peres Jesuites.
Aporte d’Italie (1598), and William Crashaw’s Jesuit’s Gospel (1610), the latter two of
which appear in Donne’s extant library. These written attacks culminated in the
publication of the Monita Secreta—the supposed secret orders of the Jesuits—in 1613.
This assault on the probity and policy of the Jesuit order both stemmed from and
magnified the Society’s position as a self-consciously new and different form of religious
order.

Throughout the early modern period, the Jesuits were a byword for innovation.
Ignatius initially conceived of the order as consciously imitating apostolic models of
prostelytization and organization. When founded as a new mendicant order in 1541, it

163 See Keynes, A Bibliography (1973), 267 (L54) and Keynes, “Bibliographical Notes and
Queries: Note 419: More Books from Donne’s Library” (1978), 570 (L235). Donne’s
library presents a complicated site in which to consider the relationship between his
reading and his polemic writing: theological and controversial works make up the bulk
of his holdings, and the are particularly dominant in first decade of the seventeenth
century.
164 See John W. O’Malley, “The Historiography of the Society of Jesus: Where Does it
Stand Today?” (1999).
deliberately distinguished itself by rejecting many of the conventional rules for dress, prayer and penance, instead pioneering new systems of obedience, organization, and communication, as well as taking the decision to pledge obedience directly to the Pope.\textsuperscript{165} The order deliberately sought to inculcate in its members the ability to act independently of central instruction, while at the same time following the aims of the society as a whole. The resulting flexibility of approach could be understood as enshrining the practice of innovation at the core of the Jesuit order. Juan de Mariana, the Jesuit historian whose approval of tyrannicide under some circumstances was one of the planks upon which the accusations against the Society was based, had himself written a tract on Jesuit abuses, which was found amongst his papers after his arrest in 1609.\textsuperscript{166} In it, he condemned the Jesuits for innovation, pointing to the Society’s deliberate decision to eschew the models of other religious orders. If the novelty of their endeavors and methods was great enough, around 1610, to allow these sorts of accusations of innovation, by the later seventeenth century, the order would be a by-word for such activities. The increasing success and prominence of the Society placed it under ever-increasing scrutiny, particularly in their capacity as royal confessors. At the same time, their educational reforms magnified the Society’s influence and increased the numbers of scholars that they produced to such an extent that they were forced to promulgate decrees strictly enjoining those scholars against innovation, especially in the sciences.

The satire’s claim that the Jesuits, and the Catholic Church more generally, are innovators is implicitly a response to accusations of innovation directed against the


\textsuperscript{166} See Alan Soons, \textit{Juan de Mariana} (1982) 10-11.
reformed confessions, who had cast off Catholic dependence on the authority of apostolic succession in order to refound their faith on the basis of scripture alone. It is not until almost end of the satire, and then only in passing, that Donne acknowledges this possibility, when he has Ignatius dismiss the reformation in England, continuing, “Neither dare I say, that this was properly an *Innovation*, lest thereby I should confesse that *Luther* and many others which live in banishment in *Heaven* far from us, might have a title to this place, as such *Innovators*” (87). In this context, Donne points out the problem with Catholic claims of authority deriving from apostolic succession by noting the claim of the Catholic writer, Cudsemius, who sought to distinguish the English church from the other reformed churches. Ignatius notes, “also wee may pardon our *Cudsemius* his rashnesse, when he denies the *English nation* to be heretiques, because they *remaine in a perpetuall succession of Bishops*.167” These slights are part of a concerted attack upon the foundational bedrock of the Church of Rome’s authority. Donne depicts the Roman church as a ship crewed by the Jesuits: Ignatius claims that,

wee, who have received the *Church* to be as a ship, do freely saile in the deep sea; we have an *anchor*, but wee have not cast it yet, but keepe it ever in our power, to cast it and weigh it at our pleasure. And we know well enough, that as to sailing shippes, so to our sailing Church, all rocks, all promontories, all firme and fast places are dangerous, and threaten ship-wracke, and therefore to be avoyded, and liberty and sea-roome to bee affected. (53)

This account of Jesuit latitude deliberately parodies Christ’s foundation of the church in the Gospel of Mathew. Playing upon the root meaning of Peter’s name as ‘rock,’ he

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167 *De despera Calvi. causa* (1609). See Healy, 45, 125.
proclaimed, “Thou art Peter, and upon this rock I will build my church; and the gates of hell shall not prevail against it. / And I will give unto thee the keys of the kingdom of heaven: and whatsoever thou shalt bind on earth shall be bound in heaven; and whatsoever thou shalt loose on earth shall be loosed in heaven” (Mathew 16: 18-19). This passage provides one of the central textual supports for Roman claims to precedence over the other patriarchs of the Church. In particular, the idea that Peter’s successors retained the ability to “loose and bind” offered support to their right to grant indulgences and to excommunicate. By portraying the church as a ship threatened by shipwreck, Donne suggests that the church’s claims to authority lack moral or textual foundation.

Donne’s critique of the false authority of the Catholic Church is also a critique of the fallible textual foundations upon which its traditions are based. In the course of his attack on the authority of the church, Donne considers in passing Gratian’s Decretals, the standard compilation of church law:

And accordingly we deliver divers and various Phylosophy upon our Gratian, who compiled them; sometimes we allow him the honour and dignity of Diamonds and the nobler sort of stones, which have both their clearnesse, and their firmnesse from this, that they are compacted of lesse parts, and atomes, then others are: and so is Gratian; whom for the same cause, sometimes we account but a hill of many sands cast together, and very unfit to receive any foundation. (49-51)

This metaphor compares the Decretals to two disparate sorts of stony foundation, the firm strength of diamonds and the shifting instability of a hill of sand—alluding to the foundation provided to those who listen to Christ’s word as having built a house on a rock, as opposed to those who built on sand (Matthew 7: 24-7). Both images suggest very
different results from the act of compilation. In the first, the “firmnesse” of diamonds results from better material, “compacted of lesse parts, and atomes, then others are,” whereas the “unfitn[ess] to receive any foundation” of sand comes from the carelessness with which its grains have been “cast together.” Implicitly, the careful work of sifting and sorting textual material matters very much in establishing the authority of the church.

Donne’s emphasis on the “clearness” of diamonds, however, also directs attention back to the image of Gregory and Bede’s spectacles, with its optical metaphor for textuality. Donne’s criticism of these two author’s writings frames the dialogues in *Ignatius, his Conclave* as false or counterfeit by suggesting the dubious validity of the dream vision as whole. The importance of textuality to his critique of flawed ecclesiastical authority is especially apparent when read in the context of a contrasting use of spectacles as a metaphor for the restrictions of textual knowledge. In the sermon for the funeral of Sir William Cockayne (1626), Donne provides an epitome of the faults of knowledge as part of a wider discussion of the fallibility of earthly existence. We will return to this text repeatedly during the following chapters, but for now I want to draw out some central concerns from this passage, and make some preliminary remarks in order to orient the discussion of this passage. “How imperfect is all our knowledge!”, Donne complains, “What one thing doe we know perfectly?”:

Whether wee consider Arts, or Sciences, the servant knows but according to the proportion of his Masters knowledge in that Art, and the scholar knows but according to the proportion of his Masters knowledge in that Science; Young men mend not their sight by using old mens Spectacles; and yet we looke upon Nature,
but with Aristotle’s Spectacles, and upon the body of man, but with Galen’s, and upon the frame of the world, but with Ptolemy’s Spectacles. (7.10, 260)

The passage provides a series of optical metaphors for the faults of knowledge that depend on an implicit cultural knowledge of optical devices and theories. Donne suggests that traditional knowledge interposes itself in the ongoing process of knowing, but his reference to “old men’s Spectacles” mobilizes arguments about the relative importance of ancients and moderns, alludes to controversies within optical theory, and draws upon the specific forms of visual aids available in the early modern period to pointed and precise effect.

The metaphorical meaning of spectacles was shaped by the limitations of the early versions of these devices invented in the fourteenth century, which were able to correct only for presbyopia, or far-sightedness. The connection between their value to the old and their use primarily as reading aids forged a metaphorical connection among spectacles, learning, and old age to the extent that when spectacles for myopia, or near-sightedness, were invented in the early sixteenth century, the two were differentiated as young and old men’s spectacles. Donne’s construction, thus, implicitly contrasts the textual knowledge associated with old men’s spectacles with the wider experiential knowledge available to the young. This emphasis on the visual that Donne gives to his argument is reinforced by his choice of authorities: the most important classical authors on their particular subjects, Aristotle for natural history, Galen for medicine, Ptolemy for astronomy. These authors were, in addition, central to the development of optical theory down to Donne’s day—Aristotle, a proponent of intromission, and an important influence on the perspectivalist tradition; Galen, a proponent of a version of extromission
who emphasized the physical form of the eye; and Ptolemy, for his use of Euclidian
geometric analysis in his writings on astronomy.

The image of “old mens Spectacles” thus connects the practices of bookish
learning with a dependence upon classical authority, systems of knowledge that were
under increasing strain due to recent discoveries and innovations. In this description,
Donne makes use of a broad tradition of metaphors that had connected sight and
knowledge since the classical period, but he does so in ways that refocus this concern on
the relation between received textual authority and the act of reading the Book of Nature.
Both the metaphor of spectacles and the relation between the two sorts of knowledge
based on “proportion” insist on the visual character of knowledge so described. Like a set
of spectacles unsuited to one’s eyes, these authorities both magnify and distort the objects
they describe, and, while they do enable a certain limited sort of knowledge, it is only that
of a servant or scholar who can learn in ‘proportion’ to his master’s knowledge but is
unable to surpass or correct him. This image of restrictive spectacles as a metaphor for
philosophical knowledge parallels the critique of received tradition implicit in the image
of Gregory and Bede’s spectacles.

Donne and Renaissance Histories of Invention

These images of authoritative spectacles—of Gregory and Bede, of Ptolemy,
Aristotle, and Galen—also draw attention to two central concerns of Donne’s satire,
because spectacles were themselves both innovations and anachronisms. Spectacles had a
central place in histories of invention from their discovery in the early fourteenth century.
They figure prominently in the *Nova Reperta* (ca. 1580) or “new discoveries,” a famous
series of engravings of early modern inventions based upon the drawings of Stradanus. The *Nova Reperta* displays the variety of early modern inventions, including not only technological inventions, such as the compass, gunpowder, and the printing press, but also natural and geographical wonders, such as the anti-malarial drug, Jesuit’s bark (quinine), and the discovery of the Americas. Each of these inventions appears together in the first of the images and then separately, each on its own plate. In the image dedicated to representing spectacles, the variety of contemporary uses are shown, with individuals from young boys to aged women shown not just buying, selling, and inspecting spectacles but also wearing and using them. Moreover, as J. C. Margolin points out, spectacles were a new invention that enabled other new processes. Images of the use of spectacles are not only confined to the plate in Stradanus’ collection devoted to them. They also appear in the plates depicting the printing press and the copper plate press, where a series of workers make use of them as they work with these other inventions.168

This clearly articulated awareness of the new-ness of spectacles, however, did not prevent their iconographic use in historical contexts. *Conspicillia* quickly became established as a figure for both studiousness and for lack of vision. They appear in depictions of historical figures associated with learning and knowledge, in particular such church fathers as Jerome and Augustine, and such classical figures as Virgil.169 These images reinforce the continuity between the classical past and the inventive present by depicting classical figures in modern dress, equipped with the modern aids for reading

and writing, thus eliding the differences in practice between periods while simultaneously emphasizing the modern desire for continuity with the antique past.

Where Strandanus’ late sixteenth-century images focus primarily upon many of the technological inventions that we associate with the transition to modern-day science, these accounts consider only part of a wider history of innovation, best exemplified by Polydore Vergil’s history of inventions and inventors, *On Discovery (De inventoribus rerum, 1499)*. Polydore was a prominent early sixteenth-century humanist author, resident in England, who was well acquainted with the circle surrounding Sir Thomas More and known as the author of the *Historia anglia*. During the early modern period, however, he was equally famous for *On Discovery*, his treatise on inventions and inventors, which went through around 120 editions—in Latin and in translation—between the sixteenth and eighteenth centuries. The first edition, published in 1499, consists of three books that drew on classical and medieval catalogues, such as Pliny’s *Historia naturalia* and Isidore of Seville’s *Etymologiae*. Like these compendious works, *On Discovery* is inclusive in approach. For Polydore, the category of the invention covers both the technological and the social, placing the discovery of glass making and the organization of law within the book’s ambit. The sections on particular arts proceed chronologically, listing things invented and the individuals who first discovered them. The topics of the individual chapters, however, are organized conceptually, beginning with the orgins of gods and working its way through the first

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laws, via a series of technological inventions, to the establishment of prostitution and
hairdressing. Within these divisions, the inventions of antiquity mingle with those of
modernity.

Throughout, Polydore places emphasis upon the individual who was the first to
discover a particular invention. Although the third book ends with a section on
unattributed devices (which he notes are equally common in both the modern and
ancient world), as a whole, *On Discovery* focuses upon the moment of innovation and the
historical memory of that event. The result is an image of civilization that emphasizes the
continuity between antiquity and Polydore’s own day, and depends on the humanist
methods of recovering and using classical sources. The resulting compilation, like one of
its major sources, Pliny’s *Natural History*, gathers together material from a variety of
sources and offers them to the reader without necessarily distinguishing the veracity of its
claims.

The 1521 edition of the work shows just how broadly Polydore construed this
history of innovation. This version of *On Discovery* was supplemented by a further five
books which substantially altered the character and focus of the work by recounting the
history of innovation within the western church since its foundations. As might be
expected, 1521 did not turn out to be a particularly auspicious period in which to write a
historical account of ecclesiastical practice. *On Discovery* was written, like Erasmus’
philological work on the New Testament, in order to discover and correct errors, without
the intention of provoking the eruption of religious controversy. However, *On Discovery*
appeared on Catholic lists of books to be prohibited and censored from 1549, even
though Polydore did not intend the work as a challenge to the established Church.\textsuperscript{171} \textit{De rerum inventoribus} thus draws attention to the conjunction between the history of innovation and arguments concerning the historical basis of religious authority. Implicit in Polydore's addition to his original history of invention was a conception of religious activity as a product of human ingenuity—sometimes divinely inspired, sometimes not—that ran parallel to the history of invention, although it needed to be discussed separately. Polydore's account provides an exemplary instance of the difficulties that were to allow Donne to portray innovation as a cardinal sin in \textit{Ignatius, his Conclave}.\textsuperscript{172}

Donne suggests just how close this connection between invention and religious innovation can be when Ignatius describes the weapons of the church as,

the two swords, the Popes Excommunications, and the Jesuits Assassinates, and King-killings; [...] because he [the Pope] hath reversed to our Order that soveraigne dignity, that as God himselfe was pleased to defend his Paradice with fire and sword, so we stand watchfull upon the borders of our Church, not onely provided, as that Cherubin was with fire and sword, but with the later invention of Gun-powerder; about the first inventour whereof I wonder, why Antiquaries should contend, whether it were the Divell or a Frier, since that may be all one. (61)

Ignatius' self-incriminating account allows Donne the opportunity to allude to conflicting contemporary accounts of the invention of gunpowder, one of those "discoveries, old and new alike," Polydore notes, "whose discoverers lie completely hidden in the thickest shadows" (7). The speech not only arrogates angelic power to the Jesuits: it suggests they

\textsuperscript{171} Atkinson, \textit{Inventing Inventors} 252–6.
have improved on that power by means of the modern invention of gunpowder, implicitly suggesting the involvement of the Jesuits in the Gunpowder Plot.

Panciroli’s *Rerum Memorabilium*, a short work on inventions written late in the sixteenth century, offers a suggestive contrast to Polydore Vergil’s fifteenth-century history of innovation. Where Polydore mixed together conceptual and institutional inventions with the technological, Panciroli, like his contemporary Stradanus, focuses specifically on technology. Donne’s reference to Panciroli’s work, late in *Ignatius, his Conclave*, aptly characterizes the contents of his book, describing the profusion of inventions known in early modern Europe:

And all which invented any new thing, even in the smallest matters, thronged about him, and importuned an admission. Even those which had but invented new attire for women, and those whom Pancirolo hath recorded in his Commentaries for invention of Porcellan dishes, of Spectacles, of Quintans, of stirrups, and of Caviari, thrust themselves into the troupe. And of those, which pretended that they had squared the circle, the number was infinite. (Donne, *Ignatius, his Conclave* 65, 137)

This seeming cornucopia of invention replicates the inventive matter gathered together and organized in early modern commonplace books. Indeed, books like those of Polydore Vergil or Panciroli make these inventions available for the sort of literary use to which

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173 Guido Panciroli, *Raccolta breve d’alcune cose piu segnalate chehebbero gli antichi, e d’alcune altre trovate da moderni*; translated into Latin and annotated by Heinrich Salmuth, as *Rerum memorabilium iam olim deperditarum & contrà recens atque ingeniöse inventarum libri duo* (1599); for the copy of another of Panciroli’s books in Donne’s library, see Keynes, *A Bibliography* (L223).
Donne puts them, allowing him to adduce them as a crowd of examples following after the other importunate innovators.

Where, for Vergil, the modern history of invention is continuous with, and interspersed amongst, the inventions of antiquity, Panciroli’s compilation of notable inventions is divided into two complementary books: an account of the inventions of antiquity lost to the early modern world (*iam olim deperditarum*) followed by an account of innovations found since antiquity (*recens inventarum*). Donne makes deliberate use of Panciroli’s division of inventions into these two ages in his satirical list of books, the *Courtier’s Library*:

17. Several little accounts added to the books of Guido Panciroli; to the book on lost things is added *On the virtue and liberty of the people; begun by a certain chaplain to John Cade and perfected by Buchanan*. To the book of things discovered, is added the many-named disease in English by Thomas Thorney; and afterwards in Latin by Thomas Campion, and *On a desire for a wife after vows*, by Carlstadt.\(^{174}\)

Donne’s reference to Panciroli is not directly slighting, but the categories of ‘things lost’ and ‘things discovered’ enable these parodical additions to the library. “Virtue and liberty” have been lost—at least according to one of the leaders of the Peasants’ Revolt, and to George Buchanan, the tutor to James VI and I, but the author of a book on republicanism condemned by his former pupil. Likewise, syphilis appears in English

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thanks to Thomas Thorney, before being ‘translated’ into Latin by the Catholic priest, Thomas Campion.

Panciroli’s division between ancient and modern also distinguishes his work from that of Polydore Vergil. Whereas Achsah Guibbory’s *The Map of Time* offers Bacon and Donne as contrasting examplars of improving and decaying worlds, in Panciroli’s account the loss of the ancient world is contrasted to and constituted by the productivity of the modern. Although Panciroli’s compilation of inventions was originally written in Italian and circulated in manuscript, it was first published in 1599 in a Latin translation, extensively annotated by one of Panciroli’s students, Heinrich Salmuth.\(^{175}\) Where Panciroli’s original version was a short account written to entertain his patron, the Duke of Savoy, Salmuth’s version sets the text within the elaborate critical apparatus of scholarship, contextualizing Panciroli’s brief accounts with reference to the classical sources. In doing so, Salmuth reinforces Panciroli’s division of the ancient and modern by showing the very different sorts of sources that attest to these separate traditions.

Polydore depicted a continuous series of inventions, stretching from the very beginnings of civilization—and often privileging biblical over mythological inventors—to the present day, while both Panciroli and Stradanus are interested primarily in the new and the innovative. However, by setting his account of the lost knowledge of antiquity in juxtaposition to recent inventions, Panciroli’s work suggests the mutually constitutive relationship between renovation and innovation. This relationship is aptly displayed on the title page of the 1629 edition, which shows the title on a banner held on either side by a pair of supporting figures: on the left, a classically garbed soldier amidst the ruins of

antiquity; on the right, an American native accompanied by explorers and the fruits of the new world. Above this is the image of Janus, looking both ways. The image of the god of doorways suggests the liminal transition involved in this move from a period of lost knowledge to one of new knowledge.

While Vergil and Panciroli wrote specialized histories of invention, Johannes Kepler is most famous for his astronomical work and, to a lesser degree, his related work on chronology. As Nicholas Jardine has argued, Kepler’s *Defense of Tycho against Ursus* is the earliest critical history of astronomy, amounting to, as his title suggests, “The Birth of the History and Philosophy of Science.” Donne’s satiric history of innovation has obvious affinities with this work, as well as with other works by Kepler. Marjorie Nicolson pointed out the link between this work and Kepler’s *Somnium*—the posthumous work on lunar astronomy, which, in its notes, accuses the anonymous author of the Latin version, the *Conclave Ignati*, of plagiarism. It is now generally accepted that it is unlikely Donne read the *Somnium* in manuscript, nor, given the internal evidence, does *Ignatius, his Conclave* bear the influence of Kepler’s dream vision.176

The satire does, however, draw directly upon another work by Kepler that Donne owned: his *De stella nova in pede serpentarii* (1606).177 *De stella nova* has been discussed primarily as a work of astronomical observation, similar to the first early modern work on

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new stars: Tycho Brahe’s *De stella nova* (1572). However, this work on the new star (*nova*) in the constellation Ophiuchus (“The Serpent-Bearer”) is accompanied by two other works: a description of a second new star in Cygnus (“The Swan”) and a discussion of the true date of the birth of Christ (*De Jesu Christi servatori vero anno natalitio*).\(^\text{178}\)

Donne first cites *De stella nova* (1606) in *Biathanatos* (1608), his manuscript treatise on suicide that did not see publication until 1647, sixteen years after his death. Donne demonstrates the disruptive potential of Kepler’s description of the new stars in the sky by using these astronomical observations to support an argument for overturning authority. Donne is engaged in the process of showing that, in some circumstances, suicide may be defensible. The traditional prohibition against suicide presents an obstacle to his argument. To circumvent this difficulty, Donne compares suicide to divorce, and asks,

> Had it been a good argument in Rome for 500 years that divorce was not lawful because no example was of it? Or almost for two thousand that a woman might not sue it against her husband because till Herod’s daughter there was no example of it. But now, when the church hath thus long persevered in not only justifying, but solemnizing many examples hereof, are not St. Augustine’s disciples guilty of the same pertinacity which is imputed to Aristotle’s followers who, defending the heavens to be inalterable because in so many ages nothing had been observed to have been altered, his scholars stubbornly maintain his proposition still, though by many experiences of new stars, the reason which moved Aristotle seems now to be utterly defeated? (*Biathanatos* 140)

\(^{178}\) In Donne’s copy these works are bound with another account of the date of Christ’s birth, also by Kepler, from 1614.
Donne cites his source in the margin as, “Kepplerus, De stella Serpentarii,” the first of the books which make up De stella nova. Donne uses this evidence of new stars to suggest not only the need for a fundamental reappraisal of the natural philosophy of Aristotle’s Meteorology, but also a reconsideration of all received authority. If Aristotle’s division of the inalterable heavens from the changeable terrestrial sphere below the “element of fire” is demonstrably false, given the “experiences of new stars,” Donne is able to argue that Augustine’s prohibitions against both divorce and suicide might be wrong. The startling extent of the argument that Donne is able to make based upon these new astronomical observations suggests the danger posed by innovation in Ignatius, his Conclave.

De stella nova is also an important source for Ignatius, his Conclave beyond the citation of Kepler early in the satire. In its twenty-ninth chapter, “De trigoni ignei,” Kepler discusses the improvements in knowledge over the recent centuries as related both to a recent triple conjunction of planets and the history of innovation. He argues that, while the stars do not foretell the future, the influence of their conjunctions has been responsible for the flourishing of knowledge both in the classical period and during the last two hundred years. “After the birth of printing books became widespread,” he claims, “everyone throughout Europe devoted himself to the study of literature” (277). Kepler’s account makes use of the assumptions about innovation implicit in Polydore and Panciroli. He takes up Polydore’s conception of civilization as the product of human invention and combines it with Panciroli’s use of innovation as the defining characteristic of the modern age. Together, these templates for understanding produce an image of early modern culture in which intellectual and technological achievements drive each other, under the impetus of the stars. He suggests that these improvements in knowledge
reached their culmination in the formation of a new order, which Nicholas Jardine
identifies as the Jesuits:

Men’s longing were not satisfied until there appeared the founder of a new order
which was openly engaged in the study of literature. Since then almost all the
authority of the religious orders has passed to the new order, except insofar as
those older orders, whilst busy with their own affairs, also apply themselves to the
study of literature.\textsuperscript{179}

This broad conception of literary work, which encompasses all written and printed
knowledge-making activities, suggests the importance of humanist work of the sixteenth
century when seen from the perspective of the early seventeenth century. Kepler argues
that this practice of “the study of literature,” as he puts it, in combination with “the birth
of printing” enabled the restoration of classical learning and the dissemination of
knowledge. While this account emphasizes the vigor of the church of Rome during the
Counter-Reformation, Kepler contrasts these changes with the wider effects of
knowledge-making on Christendom:

On the other hand, from the universities, and [their] license to hold disputation,
from the abundance of books and from the convenience of printing, as well
doubtless as from learning and public unrest, there has in the end sprung that
immense and forever memorable secession of very many regions of Europe from
the see of Rome. (278)

Kepler underscores the importance of the printing press as one of the driving forces
behind the increase in knowledge: the “abundance of books” stems “from the

\textsuperscript{179} Quoted and translated in Jardine 277.
convenience of printing.” While the printing press is conspicuously absent in *Ignatius, his Conclave*, Kepler’s account of the Reformation posits that it was the result of an increase in disputatious knowledge, magnified by the effects of the printing press on the dissemination of information. Kepler’s claim that some “ascribe all this to the Holy Spirit” merely reinforces the importance of philological, as well as missionary, work by alluding to importance of the gift of tongues in enabling apostolic evangelism.

However, it is in the conclusion of the passage, together with the mention of the “new order” of the Jesuits, that the influence of Kepler’s account upon Donne’s satire is clearest. While Kepler ascribes the impetus for these changes to a series of different influences (astrological effects of the triple conjunction of planets in 1563, humanist textual methods, and technological innovation), the result is an overall image of the productive ferment of knowledge:

Do we not today bring to light by the art of printing every one of the extant ancient authors? Does not Cicero himself learn again how to speak Latin from our many critics? Every year, especially since 1563 [the year of the conjunction] the number of writings published in every field is greater than all those produced in the past thousand years. Through them there has today been created a new theology and a new jurisprudence; the Paracelsians have created medicine anew and the Copernicans have created astronomy anew. (278)

Kepler goes on to claim that, “I really believe that *at last the world is alive, indeed seething*, and that the stimuli of these remarkable conjunctions did not act in vain” (Jardine 278, my emphasis). This positive image of new knowledge gathers together the materials from which Donne forms *Ignatius, his Conclave*—the work of humanists and theologians, the
Jesuits, Copernicans and Paracelsans. However, to see Kepler’s work as simply the jumping off point for Donne is to ignore the differences in their approaches. Kepler firmly establishes that this periodization is based on the invention of the printing press and the planetary conjunction of 1563, where Donne presents a historicized conception of the transition between the ages of the world. The two accounts also differ in their conception of the results of this transformation. Kepler suggests that it is unlikely that these improvements will be bettered in coming years, “[u]nless by chance they suppose to go to another newfound world and the art of flying having been discovered, by which we might go to the Moon or to another sphere of the world; because of which, indeed, the sphere of the world seems so narrow.”

Donne, by contrast, takes up the satiric opportunity in the parallel between this scoffing remark and Galileo’s discoveries. By depicting the world as seen from the infernal perspective of Lucifer’s antechamber, Donne produces a vision of the world that is also alive and seething, animated by the grotesque personalities and ideas of these innovators.

Personifying Innovation: Mythology, History and Satire

In Ignatius, his Conclave innovations appear as disruptive individuals rather than disjunctive technologies. Rather than offering a version of the ‘great man’ theory of history, Donne’s discussion of early modern innovation personifies change as the work of individuals—of Copernicus, Paracelsus, Machiavelli, Columbus, and Ignatius himself. Donne’s satire, like other Menippean satires, uses Hell as a site for the interrogation of

180 “Nisi forte existimant, novum aliquem orbem detectum aut artem volandi repertum iri, qua in Lunam eamus aut in alium mundi globum; quibus hercule jam iste Telluris globus angustus est” (188).
history, in which it can stage speeches between these historical figures. In doing so, it mimics and critiques a central feature of classical and early modern historical writing: the narration of historical events by means of imagined speeches. This technique conceived of these set-pieces as both persuasive and exemplary, but their use was by no means uncritically accepted. Where history depended for its effectiveness upon the convention that such speeches be read as if true, the dialogue in Hell draws attention to the fictive nature of these satiric colloquies. In Lucian’s works, and those of his imitators, the clear association of Menippean satire with the dream tradition foregrounded the importance of interpretation in understanding these works. Macrobius’ categorization of the different sorts of dreams—as true and false, prophetic and the product of the disturbed imagination—in his commentary on the Somnium Scipionis offered an interpretative framework that emphasized the satirical possibilities of dream visions.

Donne’s portrayal of Hell is a deliberate attack on Catholic doctrine and on false and mythologized history—indeed, the two are portrayed as closely related. Specifically, Donne’s depiction of Hell and the veracity of his account are commentaries on the Catholic doctrine of Purgatory and pagan accounts of Limbo:

As for the Suburbs of Hel (I mean both Limbo and Purgatory) I must confess I passed them over so negligently, that I saw them not: and I was hungerly caried, to find new places, never discovered before. For Purgatory did not seeme worthy to me of much diligence, because it may seeme already to have beene beleived by some persons, in some corners of the Romane Church, for about 50 yeares; that is, ever since the Councell of Trent had a minde to fulfill the prophecies of Homer,

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181 See Anthony Grafton, What was History (2007), esp. 34–49.
Virgil, and the other Patriarkes of the Papists; and not beeing satisfied with making one Transubstantiation, purposed to bring in another: which is, to change fables into Articles of faith. (9)

The narrator’s ironic inability to notice the “Suburbs of Hel” suggests that these areas do not really exist, implicitly recategorizing them as mere fables or myths and thus offering a satiric version of the standard Protestant condemnations of these cosmological regions. It recasts the Catholic doctrine of Purgatory as an innovation founded only upon the “prophecies” of pagan poets, who described Limbo in their works. The accusation that, as a result, the Church of Rome had “change[d] fables into Articles of faith” (“ut Fabulae scilicet in Dogmata mutarentur,” 8), underlines the satire’s central argument that Catholic doctrine is based upon unstable authority, and reinforces the point by comparing the transformation of fables into these imaginary places with the equally contested miracle of transubstantiation.

By drawing attention to the relationship between poetic fables and Catholic doctrine, however, Donne also raises the interpretive question of how to understand the choice of genre for his attack upon the Jesuits. Donne draws the reader’s attention to the artificiality of both dream visions and satire as genres with his image of vision through Gregory and Bede’s spectacles. He goes on to emphasize that this critique extends to oral communication in describing communication with the past by means of devices that improve not vision, but hearing:

I thinke truely, Robert Aquinas when he tooke Christs long Oration, as he hung upon the Crosse, did use some such instrument as this, but applied to the eare:

And so I thinke did he, which dedicated to Adrian 6, that Sermon which Chri
made in prayse of his father Joseph: for else how did they heare that, which none but they ever heard?\(^{183}\)

Donne’s account of the deliberately falsified orations of Christ on the cross, or his sermon in praise of Joseph, lampoons overly enthusiastic religious accounts, as well as the conventions of classical history, by questioning the validity of the speeches reported within them. Understood as deliberately satiric, these depictions have quite different implications.

*Ignatius, his Conclave*, like other instances of the genre of Menippean satire, depends on the distorted representation of historical and mythological figures as the butt of its jokes, presenting them as representative of the wider faults of society that it targets. Donne’s attack on innovation uses this convention in order to examine critically the relationship between myth and history. Central to understanding the connection between the two is the classical and Renaissance tradition of euhemerist interpretation, whose methods of interpretation culminate in Vico’s *The New Science*, with its nascent sociological analysis of human culture.\(^{184}\) The counterpart of this interest in the historical figures that provided the genesis of myth was contemporary Renaissance use of the trope of “stellification.”\(^{185}\) Just as the apotheosis of mythological figures resulted in their transformation into constellations, early modern funerary poetry often figured the ascent of a virtuous patron, relative, or lover to Heaven as a translation into the heavens, where

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\(^{183}\) *Ignatius* 7-9. In *Galileo’s Glassworks* (2008), Eileen Reeves notes the suggestive fact that parabolic mirrors focus not only vision but also sound.


they appeared in the form of a group of stars. This use of deliberately mythologizing imagery in poems of praise, like euhemerist interpretation, provided a means by which the legends of pagan ‘gods’ could be made acceptable for pious Christian use. Once the convention of depicting individuals as mythological figures was firmly established, it became a pervasive part of classicizing culture.

Polydore Vergil, in *On Discovery*, suggests the problem these sorts of fables present to interpretation. He condemns “those who have spent all their energies on mere fables and have strayed from the truth.”

He notes, moreover, that “gods in human guise supplied the poets their fables, and they crammed human life full of every superstition—including those who soon started the custom of raising men to heaven for their extraordinary services (as we have taught) on the basis of reputation and good feeling” (3). Despite this condemnation, Vergil concedes that he, too, practices euhemerist interpretation:

I too have followed fables of this kind in many places, I admit it. Beneath them also lies truth no less. While assigning certain discoveries to Saturn, Jupiter, Neptune, Mercury, Dionysius, Apollo, Aesculapius, Ceres, Vulcan and others whom they call gods, I have attributed these things to them as mortals, not as gods, even though I myself have also called them gods. (7)

By this means, Polydore adapts pagan mythology to serve his history of invention while at the same time seeking to guard his work against superstitious belief. The mythological figure of Atlas, which I discussed in detail in the previous chapter, provides an excellent example of euhemerist understanding of myths and of the applicability of this template to

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186 *On Discovery*, 3: “Sum equidem nescius...qua venia digni accipiantur illi qui longe a vero aberrantes, circa fabulas dumtaxat nervos prorsum omnes suntenderint” (2).
the depiction of contemporary figures. Conventional accounts of the history of astronomy, usually recounted as the preface to courses on the subject, sought to demonstrate the dignity of the subject with references to its noble founders. In doing so, these histories included mythological figures in the genealogy of astronomical discovery. In the case of Atlas, such euhemerist readings transformed the titan into a historical king, who took his place alongside patrons of astronomy such as Alfonso X of Spain.

_Ignatius, his Conclave_ makes use of these conventions at the same time that it is sharply critical of them. Satiric personification is deployed as the primary mode of characterization in an argument that directs the reader to question the foundations of authority and interpretation. In discussing Jesuit knowledge of the moon, Ignatius claims the ability to read myths allegorically, “For in those things which the Poets writ, though they themselves did not believe them, we have since found many truths, and many deep mysteries” (85). This claim to interpretative efficacy is merely part of the overweening and unfounded assertions of authority attributed to the Jesuits. It points to the difficulty of interpretation by suggesting an alternative to euhemeristic analysis: allegorical reading, in which myths are treated as poeticized versions of general truths rather than corrupted versions of history.

The euhemeristic analysis of mythology is opposed by the kinds of allegorical interpretation to which Donne alludes. While both methods aim to recover the knowledge of antiquity, they direct attention to different material in the same texts. Francis Bacon’s _The Wisdom of Ancients_ (De sapientia veterum) offers a useful comparative text for considering the analysis of knowledge implicit in _Ignatius, his Conclave_.

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187 In Francis Bacon, _Works_, ed. James Spedding et al. (1961-3).
Published in 1609, Bacon’s collection analyzes classical myths in allegorical terms in order to discover—both in the sense of finding and of revealing—the wisdom of the ancients inherent in them. In Bacon’s readings, these myths offer precepts on a wide variety of topics that cover the combined terrain of his Essays and his natural philosophy. By imparting its ideas through poetic tales, The Wisdom of Ancients aims not just to delight and to teach, but also to move the reader to action. Yet, there is something inherently dubious to the modern reader about the explanation of ideas, particularly scientific ideas, through allegories, and as a result De sapientia has been marginalized in Bacon’s canon, despite its popularity during Bacon’s lifetime.188

This neglect derives in part from the problematic basis of the knowledge offered by the tales. There is a striking disjunction between the introduction to De sapientia and the actual analysis of fables themselves. In the introduction, Bacon explicitly acknowledges the difficulties of trying to read fabulous stories as allegories, and their potential malleability and possibility for distortion: “I know very well what pliant stuff fable is made of, how freely it will follow any way you please to draw it, and how easily…meanings which it was never meant to bear may be plausibly put upon it” (695). However, he also argues for the existence of a hidden meaning, handed down from ancient times, in the myths, suggesting that such a meaning is due to the symbolic nature of the characters. As with euhemeristic interpretation, Bacon suggests that careful examination will allow the identification of later accretions to the ‘original’ texts (696). None of this, Bacon argues, is necessarily proof of meaning. Rather, even if the myths he recounts did not contain knowledge, they seem very luckily framed to contain it. Thus, if

allegory either works to conceal meaning or to illuminate it, allegorical tales present a very useful opportunity for the writer: “If any one wishes to let new light on any subject into men’s minds, and that without offense or harshness, he must still go the same way and call in the aid of similitudes” (697). In other words, parables and allegories used as analogies are excellent explanatory devices. While Bacon licenses allegory as an explanatory method, the rhetorical effect of his allegorical method is simultaneously to confirm and deny the validity of his interpretations. There is an echo of the tendency to confuse analogy with identity and thus to use analogies as arguments for a particular position. Bacon would strongly reject any such logical use, but that does not seem to prevent him from using the result of this confusion as an aid to rhetorical argument.

Where Bacon uses mythological content allegorically for didactic purposes, Donne mobilizes the same material to satiric ends. *Ignatius, his Conclave* depends upon the creation of parodic depictions of the historical figures for its polemic content. Like Bacon’s allegorical depictions, the exaggerated mythological form makes them inherently distinctive and memorable. Donne’s satire presents its account of innovation in terms of individual figures rather than technological devices, and by doing so effectively personifies innovation. Copernicus becomes a figure for contemporary innovations in astronomy, Paracelsus for alchemy, and Machiavelli for statecraft. This reversal of euhemerist interpretations uses these historical figures as personifications of innovation, transforming their historical achievements into mythological attributes and powers. Copernicus is pictured moving heaven and earth, and Christopher Columbus is described as one who, like a modern Odysseus, “having found all waies in the earth, & sea open to him, did not feare any difficulty in Hell” (69).
Donne’s use of satirical personification as a sort of mythologization appears most clearly in the first exchange of speeches between Copernicus and Ignatius. From the moment of Copernicus’ arrival, the satire connects this depiction of astronomical authority with the false vision. The narrator is confused to see Copernicus in Hell, because he “had never heard ill of his life,” yet when he remembers his distorted means of perception, he understands at once that he still sees through Gregory and Bede’s spectacles (13). As in the subsequent dialogues, the reader is led to question Copernicus’ self-aggrandizing speech both because of the false framework of the vision as a whole, as well as because of Ignatius’ reply. Copernicus’ claims as an innovator, however, are anything but flattering to the astronomer, especially when he arrogates to himself not only the authority of an Atlas, but of a new Creator. In his response to Copernicus, Ignatius dismisses Copernicus’ claims in part by associating his work with those ancient philosophers who had suggested a heliocentric system. These classical arguments in favour of heliocentrism provide an authority for Copernicus’ theories at the same time that they undermine his claims as an innovator. Ignatius contrasts Copernicus’ recycling of the antique with the new astronomical work of the Jesuit astronomer Christoph Clavius (1537-1612), the foremost mathematician at the Collegio Romanum and commentator on the *Sphere* of Sacrobosco. Clavius is depicted as an astronomer, who opposed himselfe opportunely against [Copernicus], and the truth, which at that time was creeping into every mans minde. Hee only can be called the Author of all contentions, and schoole-combats in this cause; and no greater profit can bee hoped for herein, but that for such brabbles, more necessarie matters bee neglected. (17)
This depiction of a quarrelsome and contentious Clavius is no less distorted than the image of Copernicus. However, it does accurately represent his position as the foremost Catholic defender of the orthodox Ptolemaic cosmology at the same time that it underestimates Clavius’ interest in Copernicus’ work. Both Copernicus and Clavius were motivated by similar concerns about chronology and the need for calendrical reform. Copernicus offered his new hypothesis as a more efficient and accurate means of calculation. While in reality his method was overall no more precise than the version of the Ptolemaic system then in use, it did gain currency, especially amongst the so-called Wittich circle, as a method of calculation if not as a physical description of the heavens. Moreover, Copernicus’ calculations were used as the basis for the Prutenic tables, the basis for astronomical calculations throughout the later half of the sixteenth century, which would only be superseded by the Rudolphine tables that came out of the work of Brahe and Kepler.

Calendrical reform was itself an act of renovation by which the faults introduced by the divergence of the heavens and the calendar were emended. Irrespective of the technical merits of the replacement of the Julian by the Georgian calendar, the religo-political implications of the reforms, and their connection with the Council of Trent, made them unpalatable to the various Protestant confessions—in part because they involved the co-option of reform by the Catholic Church. Thus, while Clavius’ work on the Gregorian reform of the calendar drew upon Copernicus’ hypothesis as the basis for his calculations, in *Ignatius, his Conclave*, his work on the Gregorian calendar is depicted as an affront to Copernicus’ authority and a partisan Catholic act. The new calendar

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threatens to throw into disorder both the heavens and the earth: “both the peace of the Church, & Civill businesses have beeene egregiously troubled: nor hath heaven it selfe escaped his violence, but hath ever since obeyed his apointments” because of his disturbance of saints’ days. Clavius, as a result, is transformed into an authority on the heavens using the same mythological references that Donne used for Galileo. Where Galileo is able to summon the stars from the heavens to report to him, as I discussed in the previous chapter, Clavius’ control over the calendar allows him to move saints’ days, such that at his commands, the saints are “constrained...to come downe from heaven” and perform miracles on the new days assigned to them (17-19).

The next figure to appear announces himself with a booming voice, as “Philippus Aureolus Theophrastus Paracelsus Bombast of Hohenheim,” and Lucifer, in response, trembles “as if it were a new Exorcisme” (19). The depiction of Paracelsus matches the description of his new philosophy of medicine, which has “brought all Methodical Phisitians, and the art it selfe into so much contempt, that that kind of phisick is almost lost” (21). Paracelsan empiric medicine is portrayed as inherently innovative because it abandoned the theoretical foundations of treatment. Paracelsus boasts that “This also was ever my principal purpose, that no certaine new Art, nor fixed rules might be established, but that al remedies might be dangerously drawne from my uncertaine, ragged, and unperfect experiments, in triall whereof, how many men have beeene made carkases?” (21). This uncertainty about method reflects popular perception of Paracelsus’ empirical approach to medicine—which was seen as very different from systematic early modern medical knowledge—and the paucity of historical information about both his own person and his medical practice. It is this historiographical lack that enables the caricature of his
activities, transforming his advocacy of a new chemical medicine into a claim that his work was “wrought by thy [i.e. Lucifer’s] minerals, and by thy fires” (21). This overblown and overwrought version of Paracelsianism provides an excellent example of what Andrew Cunningham calls the ‘fat’ Paracelsus, swollen by cultural perceptions, in contrast to the ‘thin’ historical Paracelsus.190 This version, in turn, reflects the accretive nature of Paracelsian empirical medicine, turning critique back upon the underlying structure of both the physician and his method.

In the context of the historical underpinnings of Ignatius, his Conclave, the character of Machiavelli stands out amongst the other pretenders to Ignatius’ place. While Sidney Anglo overstates his case in claiming that Ignatius, his Conclave is primarily a critique of Machiavelli, the Florentine’s speech and Ignatius’ reply are the longest in the satire.191 Machiavelli’s reputation as the author of The Prince, with its image of statesmanship as a pragmatic activity, provides the context for this exchange. In that text, Machiavelli put himself forward as an innovator who advocated a pragmatic rather than moral account of how a prince should govern his territories. The immorality of such a step led to the early modern stage-figure of the Italian Machiavel, a sly, treacherous, devilish individual who would stop at nothing to achieve his ends. This familiar satiric


image defines the character in which Machiavelli appears in *Ignatius, his Conclave*—though at every stage he is outdone by Ignatius, who is portrayed as an exaggerated ecclesiastical version of a Machiavellian counselor.

Machiavelli’s status as an historian and historiographer in a text centrally concerned with history marks him out for attention. We do not know in detail Donne’s degree of familiarity with Machiavelli’s writing. Although Donne may not have owned copies of *The Prince, The Discourses on Livy, The History of Florence* or *The Art of War*, his writings demonstrate a familiarity with the arguments of these works, as well the use of direct quotation—not necessarily a sign that he had read the works, in the age of the commonplace—from the *Discourses* in *Ignatius* and from the *History of Florence* in *Pseudo-martyr*. In this context, Donne’s awareness of the exaggerated nature of Machiavelli’s reputation comes to the forefront, characteristically in the context of another cheap shot at the Jesuits. Ignatius rebuts Machiavelli with the claim that, “The libertie therefore of lying, is neither new, nor safe as almost all Machiavellis precepts are so stale and obsolete, that our Serarius using, I must confesse, his Jesuiticall liberty of wilde anticipation, did not doubt to call Herod, who lived so long before Machiavell, a Machiavellian” (55). This image of Herod as an Italianate Machiavel exposes the ahistorical effects of mythologization and of the personification of ideas as characters. In doing so, the satire undercuts the very

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basis of its own characterizations, and asks the reader to consider again how and why it
depicts the figures that deliver its speeches in the way it does.

In each case, Donne’s depictions take advantage of popular confusion over the
identity and activities of the individuals who appear in the satire. All these figures, as well
as being canonical innovators, were—and continue to be—vexed historiographical
figures, whose reputations have obscured the details of their activities as much to early
modern writers like Donne as to today’s historians. The structure of the satire, in which
each character’s claim to innovation is matched by a response by the infernal Ignatius,
creates an explicit parallel between the shaky historiographical foundations of these
secular figures and the accounts on which the authority of the church is based. Donne
highlights this central argument with the appearance of the last innovator to challenge for
the place at Satan’s side. Worried by Ignatius’ ascendancy, Lucifer seeks out an alternative
candidate to replace him. He identifies the retiring and seemingly innocent Philip Neri,
the founder of the Oratorians, as a challenger to Ignatius:

> **Lucifer** called to his remembrance, that **Nerius** and all that **Order**, of which hee was
the Author, which is called **congregatio Oratorii**, were erected, advanced, and
dignified by the **Pope**, principally to this end, that, by their incessant Sermons to
the people, of the lives of **Saints** and other **Ecclesiastique Antiquities**, they might get
a new reputation, and so the torrent, and general superstition towards the Jesuits,
might grow a little remisser, and luke-warme. (71)

The satire does not so much attack Philip Neri and his order, as use their focus on
historiographical and hagiographical work as a means to further undermine the claims of
the Catholic church and the Jesuits. The Oratorians’ historical work on “the lives of
Saints, and other Ecclesiastique Antiquities" offers a basis for their influence in the Church because the Church itself has built its foundations on apostolic succession, and on the authority of the saints more generally. Central to this authority-building is the act of canonization, by which historical individuals are similarly transformed into idealized—mythologized—versions of themselves.

These processes are played out in detail at the end of Ignatius, his Conclave, when the coming canonization of Ignatius is contrasted with the memory of the dead Queen Elizabeth. This final section is heralded by a great clamour as a rumour arrives that Ignatius has been canonized in Rome (89). Worried by his growing ascendancy, Lucifer offers the Jesuits the gift of the moon—drawn down to Earth by Galileo’s telescope—as a site for colonization:

And thither (because they ever claime that those imploymets of discovery belong to them) shall all the Jesuites bee transferred, and easily unite and reconcile the Lunatique Church to the Romane Church; without doubt, after the Jesuites have been there a little while, there will soone grow naturally a Hell in that world also: over which, you Ignatius shall have dominion, and establish your kingdome & dwelling there. (81)

This image of the new world on the moon has traditionally been read as a reference to the New World of the Americas, particularly given the earlier description of the relationship between Columbus and the Jesuits. However, in the context of the satire, this colonization of the moon also stands for Jesuit attempts to reestablish the Catholic

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church in England. Donne alludes to this potential association midway through the satire, when Ignatius responds to Machiavelli’s speech with a loud cry, which is compared to the noise that would have been made if the Gunpowder Plot (1605) had succeeded:

Here Ignatius thundered out,

*With so great noise and horror,*

*That had that powder taken fire, by which*

*All the Isle of Britaine had flowne to the Moone,*

*It had not equalled this noise and horror.* (31)

This extreme form of moon-travel, in which the whole nation of England would have been thrown into the heavens, suggests the perceived Catholic threat to Parliament and the King.¹⁹⁴ The result would have been not merely a world turned upside down, but a country sent “lunatique.”

Ignatius responds to the offer of this new land by personifying the moon. He describes her as “this Queene, which is so much subject to alterations, and passions[,] she languishes often in the absence of the Sunne, and often in *Eclipses* falles into swounes, and is at the point of death” (85). Near the end of this speech, Ignatius, in the typical self-undermining fashion of satire, lets slip his admiration of Queen Elizabeth as an extraordinary woman: “I call to minde any woman, which either deceived our hope, or scaped our cunning, but *Elizabeth of England*” and admits that “For it is against my will, that I pay thus much to the *Manes of Elizabeth*” (85). This description Elizabeth as a *manes*, or ghost of the honoured dead, is drawn from one of James I’s responses to Bellarmine. While it suggests James’ reverence for his predecessor, it also exposed him to

the accusations of Bellarmine and other Catholic polemicists.\textsuperscript{195} Donne supports James by having Ignatius defend this description in the context of the ongoing controversy, noting, from scorning of which word Manes, when the king of great Brittaine writ it, I would our Parsons had forborne, since one of our owne Jesuits useth the same word, when reprehending our Adversaries, he says, \textit{That they do insult upon Garnets Manes}. (85)

The contrast between the shade of Garnet—the Jesuit who confessed the gunpowder plotters—and that of Elizabeth suggests the instability of assertions concerning the blessedness of the dead, at the same time that Donne is engaged in petty controversarial point-scoring. Implicitly, Donne is making a connection between his arguments against Catholic authority in Ignatius, \textit{his Conclave} and his attempt, in \textit{Pseudo-martyr}, to label those who resist regal authority as false martyrs. Both Elizabeth I and Garnet are seen as praise-worthy by their respective factions, but their true merit in heaven is unknown on earth.

The satire goes on to describe Queen Elizabeth as a “lunatique Queen,” playing on the association of Elizabeth and Cynthia, but transforming the conventional praise of the Virgin Queen into a metaphor for the pernicious influence of Jesuit counselors:

But we cannot doubt, but that this \textit{lunatique Queene} will be more inclinable to our Innovations: for our Clavius hath beene long familiarly conversant with her, what she hath done from the beginning, what she wil do heareafter, how she behaves herselfe towards her neighbour kingdoms, the rest of the starrs, & all the planetary, & firmamentary worlds; with whom she is in league, & amity, and with

\textsuperscript{195} See Healy 148, note to line 27.
whom at difference, he is perfectly instructed, so he have his Ephemerides about
him. But Clavius is too great a personage to be bestowed upon this Lunatique
Queene, either as her Counsellour, or (which were more to our profit) as her
Confessor. So great a man must not bee cast away upon so small a matter. Nor
have we any other besides, whom upon any occasion we may send to the Sunne,
or to the other worlds, beyond the world. (87)

In this passage, astronomy is transformed into a sort of political cosmography, in which
Clavius’ knowledge of the firmament and the planets becomes knowledge of countries
and alliances, and the seemingly magical influence the astronomer exerts upon the stars is
transformed into the power that a Jesuit counselor or confessor exerts on affairs of state.

As in Wotton’s dispatch reporting the publication of the Sidereus nuncius, astronomy and
politics become part of the same system.

These mythologized depictions of Elizabeth set off Donne’s description of the
canonization of Ignatius of Loyola in the satire. The news of Ignatius’ canonization that
begins this section is proleptic. In 1609, he was merely beatified, but Donne and others
understood that this act of recognition was the first step towards his canonization, which
actually took place 1622. The process of canonization, like the mythologization of
ancestors, transforms the historical figure into a sanctified one by reference to the
miracles performed on earth. Like the other figures in the satire, Ignatius appears not as
himself, but as a caricature: “a subtile fellow, and so indued with the Divell, that he was
able to tempt, and not onely that, but (as they say) even to possesse the Divell,” rather
than be possessed himself (15). When Ignatius of Loyola is first introduced, Donne
distinguishes between the historical Ignatius and the Ignatius that his satire discovers in Hell:

though when hee died he was utterly ignorant in all great learning, and knew not so much as *Ptolomeys*, or *Copernicus* name, but might have beene perswaded, that the words *Almagest*, *Zenith*, and *Nadir*, were Saints names, and fit to bee put into the *Litanie*, and *Ora pro nobis* joyned to them; yet after hee had spent some time in hell, he had learnt somewhat of his *Jesuites*, which daily came thither. And whilst he staied at the threshold of *Hell*; that is, from the time when he delivered himselfe over to the Popes will, hee tooke a little taste of learning. (15)

Donne’s suggestion that the real Ignatius lacked learning to such an extent that he might confuse the Arabic astronomical terms with the names of saints, while less than flattering, acknowledges the transformation of Ignatius not only from soldier to spiritual leader, but also from historical figure to the beatified ideal of the Jesuits. While Donne mockingly suggests that the moment the Society of Jesus formally swore allegiance directly to the Pope was the instant when Ignatius entered Hell, his description emphasizes the contrast between the transformed Ignatius of the afterlife and Ignatius the man. The details of Ignatius’ depiction are obviously satirical, but, as Terence O’Reilly has argued, there was a striking contrast between Ignatius himself and the mythologized version of his life and the foundation of his order.\(^{196}\) Like any innovation, the history of the early Jesuits is marked by improvisation and contestation with the authorities. The erasure of these difficulties in late sixteenth-century hagiographical accounts of Ignatius’ life stabilized and conventionalized these uncertainties, and in the process created an Ignatius Loyola

who, like Donne’s satiric version, personified the order as a whole. It is this corporate Ignatius, duly decorated by a series of miracles, whom Donne satirizes. If he is unfair to the man himself, it is an unfairness that arises in part from the hagiographical distortions of Ignatius’ biography by his own order.

Donne comments on Ignatius’ canonization itself in a Latin poem discovered by P. G. Stanwood, “The Apotheosis of Ignatius Loyola”—a title that suggests Protestant charges of idolatry. The poem, attributed to “Dr. Dun. Deane of Paules,” appears in the commonplace book now in the Library of Durham Cathedral. In the poem, “Loyola for so long damned, is lately canonized / and triumphs in the company of saints” (lines 1-2), but he is confronted with the difficulty that “the calendar is so full of rubrical / feasts that there is no room for him, even as a footnote” (3-4). The result is “a brawl” between Ignatius and St. Germanus, the saint whose place in the calendar Ignatius has taken. The pope is forced to intervene, commanding them to stand “yoked and still in your stall and / share it, as do Simon and Judas” (11-12), with the threat that otherwise he will have to content himself with one day every four years, on February the 29th. As in Donne’s mocking version of the astronomer Christoph Clavius, the papacy provokes chaos by canonizing Ignatius as a result of the complicated practicalities of including the new saint in the already crowded calendar of feast days. Like Clavius’ readjustment of the calendar, the result highlights the absurdity of these effects on the cult of saints.

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197 TLS no. 3425, 19 October 1967, p. 984; see Healy 174-5.
198 Compare Carol V. Kaske, “Calendrical Imagery in Sir Henry Goodere’s Epithalmion” (1982) which discusses the depiction of these missing days in February in Gooder’s Epithalamion for the Princess’ Marriage (1612) in the context of Donne’s epithalamion for the same marriage (132).
The descriptions of the afterlives of Elizabeth and Ignatius draw attention to the problematic relationship between the satirical and mythological depictions and the actual histories of the individuals upon which they are based. The satiric depiction of Ignatius critiques the relationship between the historical Ignatius and the corporate, beatified version produced by the Society of Jesus and the Catholic Church. This critique undercuts the authority of the Catholic Church as a whole, directing attention to the unstable historical processes of apostolic succession. Both the title of the satire and the jostling contention over enthronement point to worries about the corruption of the processes of papal—and, thus, apostolic—succession. The distorting lens of satire, like Gregory and Bede’s spectacles or the “old mens Spectacles” of Ptolemy, Aristotle, and Galen, offers an infernal vision that only serves to make the viewer more aware of the discrepancies between perception and historical reality. These personified authorities, in their turn, beg to be reread: Aristotle, Ptolemy and Galen reduced to mere philosophers, the Venerable Bede and St. Gregory stripped back to mere men, mere historians. Only then could their writings be understood productively again.

Historiography and “The Canonization”

This critical understanding of the complex transformations of historical figures suggests how we might reconsider one of Donne’s poems, “The Canonization.” Although, as with so many of the Songs and Sonnets, we do not know whether the title of “The Canonization” is Donne’s own or one given during the process of manuscript transmission, the poem has conventionally been read as presenting the stages of a
relationship as the steps necessary for canonization. The miraculous nature of the relationship between the lovers transforms them from mortals into idealized images of love. Read in the context of these debates over history and personification, however, the poem’s concerns appear subtly and importantly different.

“The Canonization” opens with one of the most famous apostrophes in English poetry, “For God’s sake hold your tongue, and let me love” (1), and the opening stanza presents a speaker who is overcome by what the final stanza describes as love’s “rage.” From this beginning, the poem demonstrates how love, like the process of canonization, transforms the individual and fallible into the exemplary and ideal. As “I” becomes “we,” the speaker’s tone softens progressively, becoming increasingly abstracted as the immediacy of the experience dissipates. The direct speech of the first stanza is replaced, by the final stanza, with the projected speech of the invocation to the canonized lovers. This mythologization of love, however, erases the specificity of its history. This process begins in the first stanza, in which the speaker attempts to establish a separate space for love by offering alternative objects for the auditor’s attention: “Take you a course, get you a place, / Observe his Honour, or his Grace, / Or the King’s real, or his stamped face” (lines 5-7). In doing so, however, the poem thematizes the comparison of the individual and the ideal. The speaker encourages the auditor to transform himself by means of a plan of study or by promotion to a “place,” and extends the effects of this trajectory. A place in the nobility transforms the holder into a personification of “honour” or of “grace,” while there is a punning equivalence between King’s “real” and his “stamped face” on the coin of the realm, via the Spanish coin, the real. In the second stanza, the speaker

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disclaims any sympathetic connection between his love and the course of the world. The interior, bodily effects of love on the humours are not reflected in the world in ways that are newsworthy (“Who says my tears have overflow’d his ground? / When did my colds a forward spring remove? / When did the heats which my veins fill / Add one more to the plaugy bill?” lines 12-15), let alone appropriate to history. “Soldiers find wars, and lawyers find out still / Litigious men, which quarrels move, / Though she and I do love” (16-8).

The allegorized description of sex between the lovers in the third stanza is the turning point in the poem. The stanza mythologizes the lovers’ mutual ‘death,’ transforming it into a miracle by which they “prove / Mysterious” (lines 26-7). This process continues in the fourth stanza’s famous descriptions of poetry as the memorial to dead lovers,

And if unfit for tombs and hearse
Our legend be, it will be fit for verse;
And if no piece of chronicle we prove,
We'll build in sonnets pretty rooms. (lines 29-32)

These lines make clear that this enshrinement in “a well-wrought urn” is specifically an alternative to the historical forms of legend and chronicle. The “pretty rooms” of a sonnet’s stanzas, moreover, seem analogous to the houses of the zodiac, in which the constellations dwell, or the calendrical feast days dedicated to the saints.

The immediacy of the opening line’s direct addresses contrasts with the calm invocation of the conclusion, in which the idealized “pattern” of the canonized lovers has tempered the rage of love, transforming it into a “peace”:

And thus invoke us: “You, whom reverend love
Made one another's hermitage;
You, to whom love was peace, that now is rage;
Who did the whole world's soul contract, and drove
Into the glasses of your eyes
(So made such mirrors, and such spies,
That they did all to you epitomize)"
Countries, towns, courts: beg from above
A pattern of your love! (37-45)

This transformation is prospective, and specifically optical, rather than retrospective. The experience of love is all in the present. The lover is trapped in an eternal “now” (line 39), while the poem looks forward to an idealized future. Where the distorting lenses of theological and philosophical authority constrict vision, love’s reflection of the world is expansive, encompassing “[c]ountries, towns, courts”—places that are seen, but still separate. This image of world, contracted into and reflected in the “glasses” of the eyes, closely resembles the mutuality of reflected vision in “The Good Morrow.” The two poems offer images in which composite parts make up a whole. In both cases, this nesting of the self within the other is dependent upon historical processes, as the whole world is seen reflected in the lovers’ eyes, the old world is seen reflected in the new.

The “pattern of your love” with which the poem ends works counter to the historical pattern of the poem itself. As in Ignatius, his Conclave, the act of canonization reveals and conceals the historical specificity of the individuals so elevated. “The Canonization” addresses the effects of holding up individuals as exemplary by drawing attention to two contrasting sorts of patterns: the idealized form of saints, and the
historical process by which the individual is transformed into the ideal. The idealized
form of love is not outside history, but comes out of history. The acts of memorializing
and forgetting are themselves historical processes, acts of pattern-making that Donne
himself was subject to. Donne’s biographer, Isaak Walton, has been described as
engaging in something like hagiography. However, he built upon a distinction between
Jack Donne and Dr. Donne that Donne himself made. Donne’s own awareness of these
processes of transformation, as explored in *Ignatius, his Conclave* and “The Canonization,”
insists upon the importance of literary work—the building in sonnets of “little rooms,”
the construction of “well-wrought urn[s]”—in this process of remaking. And he was
equally aware of the importance of technological innovations—mirrors, spy-glasses, even
the bookish technology of epitomies—and of innovative individuals. His transformation
of Copernicus, Paracelsus, Machiavelli, and Ignatius in *Ignatius, his Conclave* suggests his
belief in the power of personification to alter the pattern of knowledge. It is in the
context of this emphasis on the relationship between pattern and history that we turn
from the satirical *Ignatius, his Conclave* to the commemorative *Anniversaries*, in which
Donne offers a seemingly very different, but strikingly complementary vision of the
world.

200 Compare with the markedly hagiographical account of Donne’s life in Isaak Walton,
*The Lives of Dr. John Donne, Sir Henry Wotton, Mr. Richard Hooker, Mr. George Herbert*
(1670). For critiques of Walton’s biographical work, see David Novarr, *The Making of
Walton’s Lives* (1958); and Jessica Martin, *Walton’s Lives: Conformist Commemorations and
Chapter Three: “The world in peecees”:
Grief, Anatomy, and Vision in “An Anatomy of the World”

Therefore Solomon shakes the world in peecees, he dissects it, and cuts it up
before thee, that so thou mayest the better see, how poor a thing, that
particular is, whatsoever it be, that thou sets thy love upon in this world.

(Sermons 3.1, 48)

In 1626, John Donne gave the sermon at the funeral of Sir William Cockayne,
Alderman of London. His aim on such occasions was, as he puts it in another funeral
sermon, “First, To instruct the Living, and then To commemorate the Dead” (Sermons 8.2,
63). To do so, Donne draws upon the linked tropes of mundus senescens and contemptus mundi,
describing an ageing or dying world in order to provoke the rejection of worldly
things in favour of the rewards of heaven. If, he tells his audience, “there is nothing in
this world perfect; […] there is nothing constant, nothing permanent” (Sermons 7.10,
259), Cockayne’s death is merely a symptom of that imperfection, of that impermanence,
and his death must be read in relation not to this world but to the next.202


202 For Donne’s practices, see Dennis Kay, Melodious Tears (1985), 91-123; P.G. Stanwood, “Consolatory Grief in the Funeral Sermons of Donne and Taylor” (2002); and Robert C. Evans, “Lyric Grief in Donne and Jonson” (2002).
Donne frames this relationship between heaven and earth as a reflexive reading. He tells his audience that, “This Text which you Heare, Martha’s single words,”—that is, the text of the sermon, “Lord, if thou hadst been here, my brother had not died”—“complicated with this Text which you See, The dead body of this our Brother, makes up between them this body of Instruction for the soule” (7.10, 259). The intertextual reading to which Donne adjures the congregation divides the texts between the senses of sight and hearing. Implicitly, he allies hearing with the transmission of the gospel and thus, more generally, the word of God, and sight with the act of understanding the mortifying body of the deceased, and by implication the Book of Nature which is the world. In this way, the two texts of the sermon for Cockayne are tied together and complicated by each other: the description of the dying world is heard in the context of the dead body, and the body is understood in the context of the world as it is and as it will be. This connection between the senses and (im)perfect knowledge is inflected by an awareness of the grief of his listeners. By enumerating and elaborating the faults of the world, emphasizing its corruption in contrast to the perfection of heaven, Donne also creates a connection between the fallen world which he depicts and the sorts of fallible knowledge available to mourners, not just via their restricted senses, but via the senses of a body stricken by grief. He suggests, in other words, that they reconsider their means of perception so that they might rectify their understanding not only of heaven but also of earth.

Donne draws attention to the consequences of these problems of interpretation for scientific knowledge later in the funeral sermon for Cockayne, in the passage that I
first discussed in Chapter Two, where he describes classical authority via the metaphor of old men’s spectacles:

Young men mend not their sight by using old mens Spectacles. But, we look upon Nature, but with AristotleS Spectacles, and upon the body of man, but with Galens, and upon the frame of the world, but with Ptolomies Spectacles” (7.10, 260).

As I argued there, Donne’s conception of classical authorities is ambivalent: the figure of spectacles suggests that they both magnify and restrict vision. However, this formulation also emphasizes the differing sorts of aids to vision needed for “look[ing] upon Nature, [...] the body of man, [...] and the frame of the world.” Ptolemy, Galen, and Aristotle’s spectacles not only restrict vision individually, but also provide contradictory, patchwork, uncoordinated and potentially incompatible views of the world. Like Donne’s sermon and the body of the deceased, and like the senses of sight and hearing, these systems of knowledge complicate as well as clarify each other.

In this chapter, I consider the relationships between different sorts of patchwork knowledge: earthly and heavenly, anatomical and astronomical, rational and passionate. Using the effects of grief upon vision as a model for the problematic depiction of the world, I examine Donne’s use of visually-based metaphors for knowledge across his funerary poems and sermons. I read their complicated figurations of sight in the context of strategies of consolation, anatomical practice, perspectival theory, optical devices, and early modern astronomy. Although the “Anatomy” is dominated by images of the breakdown of knowledge, which inevitably remind us of the changing circumstances of knowing in the Early Modern period, the representation of knowledge that Donne provides in consolatory poems and sermons is a deliberately partial one, tuned to the
rhetorical needs of the occasion. The resulting depiction of a world devastated by the loss of the deceased, which reflects externally the interior grief felt by the mourners, implicitly comments upon the grounds of knowledge.

In this context, my argument in centrally concerned with the relationship between this embodied knowledge and methods of knowledge making in Donne’s “An Anatomy of the World.” In the First Anniversary, Donne uses the methods of anatomy as the framework for his attempts to relate terrestrial and celestial, internal and external—to look at the body of the world and the frame of heaven with Galen’s spectacles, as well as Aristotle and Ptolemy’s. Anatomy is a method of organization as well as analysis. The process of dissection crucially transforms its object of examination by cutting open the body and laying its interior exposed to view, and the knowledge it produces has to take this effect into account. In this chapter, I consider the result of Donne’s use of these metaphoric and methodological frameworks of perspectival depiction and anatomical dissection in relation to the frames of the body and of the heavens. Although my argument focuses on Donne’s First Anniversary, the “Anatomy of the World,” as a site of both commemoration and examination, I also draw upon metaphors of vision and methods of organization from across Donne’s funerary sermons and poems. I begin with Donne’s accounts of embodied perception in the “Elegy upon Lady Marckham,” the Second Anniversary, and the “Valediction: Of My Name in the Window,” with particular reference to Donne’s use of optical devices—spectacles, watchtowers, lattices—as metaphors for limited vision. I link Donne’s exploration of perceptual difficulty in these poems with the process of anatomy as a visual scene and its mediation in manuals of anatomy. I compare these public visual examinations to the rhetorical organization of
analysis figured as an anatomy, and discuss use of this figure as the structuring frame of the *First Anniversary*. I then examine Donne’s portrayal of astronomy in the “Anatomy” as an exemplary site of these visual and epistemological difficulties, in which the process of surveying and cataloguing the sky becomes a process of division and distortion. Finally, drawing upon Donne’s images of ideal transparency and the metaphor of the dark mirror, I discuss the relationship between the *First Anniversary’s* use of anatomy to dissect and examine the world, and the reappearance of the displaced physical body in the Second Anniversary.

**“Tears are False Spectacles”: Grief, Embodiment, and Vision**

Teares are false spectacles; we cannot see
Through passions mists, what wee are, nor what shee. (lines 15-16)

Grief is portrayed as an impediment to knowledge and vision throughout Donne’s consolatory writing. As Elaine Scarry argues, Donne consistently uses the ground of the body and the senses to reach up towards the transcendent. However, the observation of the dead problematizes this attempt. The body of deceased draws attention to the disjunction between the bodily ground of knowledge and the immaterial soul. The difficulty posed to the perception of mourners appears most clearly in the first of his funeral elegies from the period around 1610, the “Elegie upon the death of the Ladie Marckam” (1609), where death threatens the world in the form of the salt waters of the

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Written in the same year as Galileo’s observations with the telescope, but before their publication, the elegy draws attention to grief as an optical distortion with its claim that “Teares are false spectacles,” and that the mourners “cannot see / Through passions mists, what wee are, nor what shee” (lines 15–16). As in the funeral sermon for Cockayne, the auditors are confronted by doubled objects of vision: their tears and the world; their selves and Lady Markham; her body and her soul. The need for comparison to disentangle the seeing and seeming, self and other, derives from the inability to distinguish between exterior and interior, for those who cannot see “what wee are, nor what shee.”

The blurring effect on vision of tears has long been considered an impediment to knowledge. In Boethius’ De Consolatione Philosophiae (c. 524), for example, grief prevents the narrator’s attempts to find wisdom until Philosophy comes and wipes away his tears. Donne’s portrayal of the relationship between grief and vision twists that interference in a material direction. Like the religious spectacles which frame Ignatius, his Conclave and the old men’s spectacles that mediate knowledge later in the funeral sermon for Sir William Cockayne, the metaphor of false spectacles concretizes the effects of grief in the form of an optical device. However, while the blurred vision of eyes streaming with tears are an outward sign of this difficulty, this impediment is conflated and confused with an interior perceptual distortion. “[P]assion’s mist”—the effects of the unbalanced humours of grief upon the faculty of imagination—not only clouds the eyes, but also darkens and distorts the impressions received in the mind. This double distortion of perception draws attention to the problematic relationship between embodiment and

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204 Variorum, Vol. 6.
vision. While the outward impediment of tears can be seen and potentially removed, the inward effects of grief prevent those mourning from properly perceiving either themselves or the deceased.

These concerns about the reciprocal reading of texts, of body and word, of earth and heaven, are most pressing in the two Anniversaries, “An Anatomy of the World” (1611) and “The Progress of the Soule” (1612), which Donne wrote to commemorate the death of Elizabeth Drury. The most comprehensive analysis of vision appears not in the “Anatomy,” but in the “Progress.” There, Donne makes a distinction between unobstructed vision in heaven and the constricted perspective of embodied sight:

In this low forme, poor soul what wilt thou doe?
When wilt thou shake off this Pedantry,
Of being taught by sense, and Fantasy?
Thou look’st through spectacles; small things seeme great,
Below; But vp vnto the watch-towre get,
And see all things despoyld of fallacies:
Thou shalt not peepe through lattices of eies,
Nor heare through Laberinths of eares, nor learne
By circuit, or collections to discerne.
In Heauen thou straight know’st all, concerning it,
And what concerns it not, shall straight forget. (“Progress” 290–300)

Here, he distinguishes between the fallible knowledge available to an embodied soul, “taught by sense and Fantasy”—that is, by the senses and the faculty of imagination—and that available from the “watch-towre”—the knowledge of the soul unencumbered by a
body. However, the connection of methods of organizing knowledge ("circuit, or
collections") to the senses, and the contrast between the knowledge available to the
embodied soul ("in this low forme, poor soul") and that obtained in heaven ("thou
straight know'st all") suggests the difficulties attendant upon obtaining clear sight and, in
this metaphorical construction, clear knowledge.

Even here, in Donne's discussion of restrictions of the five senses, knowledge is
figured as primarily visual. As in the "Elegy upon Lady Markham," Donne's description
of their limitations is metaphorized as an optical device ("Thou look'st through
spectacles"). He contrasts this fallible perception with the abstracted viewpoint of the
"watch-tower," from which it is possible to "see all things despoyld of fallacies." Donne's
attentive metaphoric use suggests the broad communal familiarity with, and attention to,
a variety of seeing devices, including mirrors, lenses, and telescopes, all grouped under the
broad term "glasse" or "glasses." As with the false spectacles of grief or the textual
spectacles of classical authority, the metaphor of the restrictive spectacles of bodily
perception implies the possibility that those spectacles might be removed, that
conceptually a vision without those restrictions is available. Thus, while embodied
perception is depicted as distorting the objects visually, such that they appear outsized
("small things seem great, / Below"), this distortion is rectified by the prospect of heaven,
from the viewpoint of an unfettered soul "growen all Ey" ("Progress" 200).

This insistent use of visual metaphors places an implicit burden upon Donne's
descriptions of the contrasting restrictions specifically linked to the senses of sight and
hearing, what he calls the "lattices of eies" and the "Laberinths of eares." The sights
apparent through the perforations of the eyes' lattices and the confusing echoes that
sound through labyrinthine ears tangibly embody perception, emphasizing the dual
nature of the senses as openings that at once allow and restrict perception. These
descriptions of the senses, moreover, clearly suggest a connection between the senses of
sight and hearing and two equally fallible sorts of methodical knowledge, the process of
“learn[ing] / By circuit, or collections to discerne.” Vision, whose lattices divide and
multiply the objects seen, is analogous to the process of knowing by “collections,” in
which the gathering and categorizing objects seeks to remake the world in miniature.
Hearing, with its echoing repetitions, is similarly related to the evidence given to circuit
judges and the tales brought back by travelers on their voyages. I will consider hearing
and circuitous knowledge in detail in Chapter Four, but for now I want to concentrate on
vision as a conceptual metaphor for the process of knowledge making.

Donne’s description of the “lattices of eies” is particularly suggestive in the context
of Renaissance conceptions of perspective, in particular, Alberti’s comparison of
perspectival depiction on a flat surface to observing through a window.206 Like the
diffracting “spectacles” of the grieving, the metaphor of the lattice suggests a framework
that simultaneously organizes and restricts vision. Ernest Gilman contrasts the restrictive
vision available through Donne’s lattices of the eyes with the vision through a velo or
drawing frame, used to mechanically produce perspectival depictions.207 As Gilman
suggests, the use of the velo, constructed from a frame divided into sections with threads,
from a thin cloth veil, or even a glass surface which could be painted on directly,

206 See Panofsky, Perspective as Symbolic Form (1991), 4; Elkins, Poetics of Perspective
(1994); Alastair Fowler, Renaissance Realism (2003); and Kalas, Frame, Glass, Verse
(2007).
207 Gilman, The Curious Perspective: Literary and Pictoral Wit in the Seventeenth Century
(1978).
organized vision in a similar manner to Donne’s metaphor of the restrictive lattices. In doing so, they separate and order the natural world, reducing it to a series of disconnected particulars.

These disconnected particulars are strongly reminiscent of the darkened and diffracted vision of the grieving, particularly when considered in the context of the “curious perspective” of anamorphosis. Perspective and anamorphosis are closely related. Indeed, they represent variant products of the same techniques. During the early modern period, “perspective” was one of the terms used to refer to these optical illusions, as in Shakespeare’s description of the diffracting effect of tears in Richard II, when Bushy suggests to the Queen that,

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\ldots \text{sorrow’s eye, glazed with blinding tears,} \\
\text{Divides one thing entire to many objects;} \\
\text{Like perspectives, which rightly gazed upon} \\
\text{Show nothing but confusion, eyed awry} \\
\text{Distinguish form. (II, ii, 16-20)}
\]

The tears described here diffract vision. The resulting “perspectives” are seemingly formless or broken into incoherence when seen from in front of the painting—“rightly gazed upon,” with the punning “rightly” conflating the idea of a proper view with the

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209 Anamorphosis was a late coinage for these images, first used in the mid-seventeenth century, and only popularized in the twentieth-century by art critic Jurgis Baltrusatis in Anamorphoses (1957). See Massey, Picturing Space, Displacing Bodies (2007), 20.

viewpoint at right angles to the painting’s surface. Like vision through the seventeenth century. “multiplying spectacles,” deliberately constructed to create this effect, the “false spectacles” caused by weeping diffracted and obscured vision. However, when the viewer observes the picture from an oblique angle—when “eyed awry”—the hidden image appears, allowing the observer to “distinguish form.”

Anamorphosis depends upon deliberate visual distortion to enable the depiction of three-dimensional objects on a two-dimensional surface. Anamorphic perspectives differ from standard perspectival depiction only in how they situate the implied viewer: where a standard perspectival depiction places the viewer in a normative position, in front and away from the picture, anamorphic depiction uses a form of forced perspective to displace the viewpoint violently, making it seem as if the object was seen from the corner of the eye. The canonical early example of this effect is Holbein’s *The French Ambassadors* (1533), in which the normative depiction of the two figures and the room they occupy is contrasted with a seemingly unintelligible oval image below and between them. However, seen from below and to the left, this image resolves itself into a skull, a *memento mori* that reminds the viewer of the transitory nature of the world. The connection between these contrasting effects is apparent in the commonplace injunction in early treatises on perspective that artists should restrict the visual field depicted in an perspectival image to ninety degrees. Whereas perspectival images with a narrow field of vision are comparatively tolerant of the position of the observer—as in the familiar experience of a picture’s eyes following the viewer around the room—widening the field of vision would

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212 See Baltrusatis; Gilman; Massey.
necessitate a degree of distortion of objects at the outer extremes of the image, because from the normative viewpoint that area would be seen at an oblique angle similar to that of an anamorphic image.

As the distortion of anamorphosis suggests, the supposedly enabling vision of the drawing frame is problematic because it depends upon the assumption that the perspectival construction of a “realistic” depiction of three-dimensional objects on a two-dimensional surface is powerful rather than restrictive—an assumption that Gilman challenges elsewhere in his book.\(^\text{214}\) However, the very power of these techniques depends upon the construction of a single, fixed viewing point for both artist and viewer.\(^\text{215}\) Both the height of the horizon and the implied distance point from which the illusion of three-dimensional space will be perfect are inherent in perspectival construction. As Lyle Massey insists in her analysis of the depictions of drawing machines in Albrecht Dürer’s Underweysung der Messung (1525; 2\(^{nd}\) ed. 1538), the restrictive nature of seeing via these devices is implied by the awkward and rigid configurations of the bodies of the artists using them (85–90). Thus, for instance, the process of painting on a glass surface in the first image depends not only upon the observation through the lens placed before the artist’s eye: the painter’s ability to reach the surface of the glass also determines the

\(^{214}\) “But what Donne sees as an impediment to true knowledge, the earlier Renaissance regards as evidence of the power of the artist’s ratio to frame the world in rectangles. The spectator has an equally privileged position from his own firm point of view. He is the ideal observer of a scene organized for his sake, tailored to his measure, and fully revealed to his gaze” (26).

viewing distance inherent in the painting. The resulting two-dimensional images, however illusionistically complex and effective, represent a simplification of the objects of perception, a reduction to two dimensions. Indeed, the very woodcuts which show the use of these devices depend upon the techniques that they purport to depict, as in Dürer’s image of the reclining woman being drawn with the use of a drawing frame, where the foreshortening of her body begs the question of exactly what the artist sees through the frame.

Gilman suggests that Donne’s “lattices of the eyes” imply a form for methodical knowledge related to Ramist dichotomous division. However, Donne’s metaphor in fact derives from a classical commonplace in which the lattices are directly in contrast to the perception available via methods of exposition. Erasmus notes in his adage, *Per transennam inspicere* (“To see through a lattice”):

>To see through a lattice was a metaphor, no doubt proverbial, for a sight of things which is not close and detailed but distant and in outline. It is derived from shopkeepers who erect some sort of screen before articles which they do not wish to be handled; some even put clear glass in front of them, so that the passers-by can only inspect them from a distance, and do not unfold them except to a likely purchaser.

These lattices restrict vision, reducing it to a glance, by which the object is seen “not close and detailed but distant and in outline.” Such exterior lattices, or *jalousies*, were designed, as the name suggests, so as to restrict vision into the interior of a house, while still

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216 On the lattice metaphor in Erasmus and Cicero, see Cave, *The Cornucopian Text* (1979), 121-4.

217 Erasmus, *Adages* III.i.49, 199-200.
allowing the inhabitants to look out. As the use of *inspicere* ("to look in") suggests, Donne figures bodily perception as similar to being confined outside the world. As Erasmus’ description of the shopkeepers who place screens in front of the objects for sale suggests, this classical adage was ripe for re-reading in the context of early modern perspective drawing. The objects seen with “only a passing glance, through the lattice as it were,” cannot be properly examined and understood, because they are seen only from a single, fixed viewpoint.

As with Donne’s contrast between the restricted spectacles of the senses and the unimpeded vision of the watchtower, the classical trope of the lattice is constituted by an opposing form. In the *Adages*, Erasmus adduces Cicero’s *De oratore* as his source for the image of the lattice, in section where the dialogue uses visual metaphors to explain rhetorical organization:

> Suppose you had entered some house, or a country seat, full of works of art; if they were kept in some separate place, as you say, and you very much wanted to inspect them, you would not hesitate to ask the master of the house to have them brought out, especially if he was a friend of yours. In the same way you might now ask Crassus if he would bring out the store of fine things of which we have had only a passing glance, through the lattice as it were, piled up as they were in one place, and would put each of them in its appropriate position.

The request that Crassus lay out the contents of his store of fine things divides the process of rhetorical composition into two parts: the act of gathering, in which the objects

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218 Compare Alain Robbe Grillet, *La Jalousie* (1957), in which the rigidly constricted viewpoint of the narrator figures both the restricted perceptions imposed both by his jealousy and by the system of colonial production.

“ piled up as they were in one place” (implicitly connected to the conception of memory as a thesaurus, a storeroom or treasury), and the process of analysis and division, in which they are placed “each of them in its appropriate position.” While the simile compares this store to that of a collector of works of art, the topic of discussion is the rhetorical act of divisio, the division or distribution of an argument under its separate heads. As with Donne’s distinction between the appearance of the world seen through the lattices of the eyes and its appearance from the watchtower, in De Oratore the alternative to the glance through the lattice, in which the objects can only be seen from one point of view, is the opportunity to inspect the objects as they are individually described by their owner. Moreover, this depiction of art objects organized for display to the viewer also recalls the parallel Donne constructs between the restrictive lattices of the eyes and methodical methods of knowing, in particular, the gathering of collections. The sixteenth- and seventeenth-century practice of collecting, embodied in the wunderkammer or cabinet of curiosity, gathered together a heap of naturalia and artificialia—natural and man-made objects—that is subjected to a similar process of categorization for display.

Donne’s metaphor of the watchtower offers a vantage point that provides a similar contrasting vision. Seeing from on high not only increases the area seen within the

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22 Compare Donne’s use in a sermon, where he relativizes vision from an elevated site, insisting on the importance of comparison: “In nature things that are above us, shew as little, as things below us; men upon a hill are as little to them in the valley, as they in the valley to them that are raised. It is so in nature; but we have forced an unnatural perversness in our selves, to think nothing great but that which is a great way above us; whereas if we look downwards, and see above how many better deservers, but yet take thy
horizon, it also provides a view in which the landscape is laid out before the observer, rather than seen in profile. Metaphorically, vision from this elevated vantage point suggests a number of analogous sites: the unobstructed vision of heaven, the clarity of the faculty of reason, the geometrical and cartographic knowledge available from the process of surveying. Moreover, vision from on high was associated with rulership and authority. In all of these versions, however, elevated vision is implicitly supplemented by vision from a ‘normal’ site, such that the two points of observation complement each other. Thus, for instance, vision from the ‘hill of truth’ in Lucretius’ *De rerum natura* provides a prospect separated from, and thus unencumbered by, the distracting interactions with the world. Bacon, quoting Lucretius, puts it this way in his essay “Of Truth”:

'It is a pleasure to stand upon the shore, and to see ships tossed upon the sea; a pleasure to stand in the window of a castle, and to see a battle and the adventures thereof below: but no pleasure is comparable to the standing upon the vantage ground of Truth’ (a hill not to be commanded, and where the air is always clear and serene), ‘and to see the errors, and wanderings, and mists, and tempests, in the vale below’; so always that this prospect be with pity, and not with swelling or pride. (*Advancement of Learning* 342)

The world from this “vantage ground” not only benefits from the clarity of the visual medium, but also allows the viewer to perceive the visual impediments that those below encounter. The watcher is, thus, abstracted from and mentally able to order the actions of self altogether at thy greatest, and say with *Jacob, parvus sum*, all this is but a little greatness, but a poor riches, but an ignoble honour” (1.7, 272–3).

the world, now revealed to be full of “errors, and wanderings, and mists, and tempests.” These elevated sites for viewing are portrayed as ideal because they offer this comparative vision. They not only provide a place for seeing, but also a place from which the act of seeing can be observed and reconstructed.

Visual elevation or displacement was fundamental to acts of surveying and measuring, in which the exploitation of the principles of Euclidean geometry allowed the surveyor to fix the position of sites or calculate the size of objects from a distance. These methods were often considered important, proprietary knowledge, as in the case of Galileo’s invention of the so-called “Geometric and Military Compass.” These cartographic methods of seeing also reduced the objects of vision to a system. Samuel Edgerton has argued that the rediscovered Ptolemaic grid system, by which cartographic vision was systematized, was one of the bases for Alberti’s conception of perspectival drawing. Yet, as Svetlana Alpers has pointed out in the context of the conjunction of maps and pictures in the Netherlands during this period, Ptolemy’s understanding of “the picture as a flat working surface, unframed, on which the world is inscribed” points to the difference in conception of the terrain under the process of description. The resulting images, in Netherlandish maps, in which cities and countryside are often shown from

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imagined heights, simultaneously depict and survey the landscape. In doing so, they insist upon the interior structuration of the terrain observed, disembodying the viewer, instead of using illusionistic effects to force embodiment.

These conceptions of vision as a metaphor for the organization of knowledge are emphasized by the overlapping meanings of the term *speculum*, which provide an interesting contrast to the confusing multiple meanings of the English term “glass.” *Speculum* is conventionally translated as “mirror,” but across its inflected forms has multiple meanings. For instance, *specula* is both the nominative plural of *speculum* (“mirror”) and the nominative singular of *specula* (“watchtower”). These multiple meanings lie behind Giambattista della Porta’s description of “Ptolemy’s glass” set upon the Pharos, by which “he could for six hundred miles, see by it the enemies Ships.” Kepler claims that this glass was a description of the telescope before its invention, although della Porta’s depiction has a much more complex history. In this context, like the conceptual height of the watchtower, vision in a mirror provides a second viewpoint with which direct vision can be compared, making possible complex surveying methods. This set of meanings is further complicated by the use of *speculum* as the original term for a series of medical devices—including diminutives such as *specillium*, or “surgical probe”—which assisted in the investigation of the body. Polydore Vergil, for instance, conflates these devices in attributing the invention of the mirror to Aesclepius, because he

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229 On the relationship of *speculum* as both an optical and a medical device, see Luce Irigaray, *Speculum of the Other Woman* (1985), especially 144–6. Compare, Edward Tayler, *Donne’s Idea of a Woman* (1991) 166–7, note 26, where Tayler cites Augustine’s discussion of the relationship between *speculum* and *specula*. 
confuses *speculum* as a term for a mirror with *speculum* as an instrument for the dilation of the eye and other bodily orifices. These devices provided methods for looking into and for surveying the body, like the corresponding vision from the watchtower.

The lattices of the eyes and vision from the watchtower provide two contrasting organizing frames for knowledge—one restrictive, one expansive. However, to discuss these optical devices and perspectival methods of depiction as frames for vision or knowledge is problematic. Rayna Kalas has recently drawn attention to the term ‘frame’ in the Renaissance context, suggesting the complexity of the relationship between the work of ordering and visual perception. She focuses on the distinction between the “alienable quadrilateral” of the artistic frame—upon which modern metaphors of framing are based—and early modern framing as process of making and articulation. As she notes, the modern “frame,” with its important place in the history of art, was still in the process of cohering during the sixteenth century. This emergence of the modern frame depended upon the transformation of the frame from a part of the work of art into a supplement to it, and upon the construction of perspectival portrayal such as Alberti’s depiction on a two-dimensional ‘window’ of three-dimensional objects seen ‘through’ that opening. However, Kalas’ emphasis upon the difference between the academic use of framing and early modern usage neglects the continued use of a language of interior framing up to the modern day, where a structure in built upon and around a frame. This meaning, which derives from and is contiguous with early modern usage, emphasizes the

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230 See Vergil, *On Invention*, ed. Copenhaver. See also, for example, an eighteenth-century British edition of Pancirolli’s *Rerum memorabilium (The History of Memorable Things Lost* [1715]), where the discussion of spectacles notes a similar ambiguity associated with the term, *conspicillia*—meaning either spectacles or a lookout post.

meaning of frame as interior structuration.\textsuperscript{232} This conception, which places in parallel the frame of a building, the frame of the body, and the frame of the world, is central to the juxtaposition of embodied and methodical observation in the “Anatomy,” as well as elsewhere in Donne’s work.

The “Valediction: of my Name in the Window” offers an excellent example of the connection between exterior and interior framing in Donne’s descriptions of the complicating visual effects of a name incised into a window pane. Kalas’ bravura discussion of the poem examines the problematic relationship between the name, the glass, and the effects of seeing in and through these media (199-205). Her argument primarily uses the poem to discuss the difference between iconic and representational relationships between things (\textit{res}) and words (\textit{verba}) by means of an analysis of the relationship between the glass of the window and the frame of the name. As she notes, the poem describes the paradoxical act of simultaneously seeing through and seeing in, as the glass of the window functions as both lens and mirror. The reflective and transparent qualities of glass are combined with his inscribed name to create a layering of images and identities:

\begin{quote}
‘Tis much that glasse should bee
As all confessing, and through-shine as I,
‘Tis more, that it shews thee to thee,
And clear reflects thee to thine eye.

But all such rules, loves magique can undoe,
\end{quote}

\textsuperscript{232} Kalas adduces a series of examples in which framing is used to describe the concoction or tempering of liquids or vapors. However, it is unclear whether these descriptions derive directly from the old English \textit{framian}, or are metaphoric uses of frame as a physical structure (82-105).
Here you see me, and I am you. (7-12)

The inscription of the speaker’s name on the windowpane makes him “through-shine” and “all confessing”—much like Elizabeth Drury in the companion poem to the *First Anniversary*, “A Funeral Elegy,” whose body was like “a through-light scarfe” (61). His transparent image figures a relationship between body and soul in which the inward qualities are so apparent in the outward form that the form no longer acts as a dark mirror, inhibiting perception, but provides a clear vision instead. At same time, the addressee is reflected in the glass, over-written by the name inscribed upon it: “Here you see me, and I am you.” The mingling of the two means of seeing produces a mingling of the two lovers, the text of the speaker’s name standing in for the image of the speaker.

The lattice-like name orders and organizes those things seen through the window and those reflected in it—just as the world depends upon the ‘shee’ of the *Anniversaries*, whose “name defin’d thee, gaue thee form and frame” (*Anatomy* 37).

However, Kalas’ reading scants on analysis of the process of anatomical framing in the central section of the poem, where the speaker imagines the name inscribed with a diamond ring in the glass of the window as an anatomy, a “ragged bony name” (23-32). The window’s simultaneously reflective and transparent glass confuses the distinction between the reflection seen in it and the object seen through it. As in a painting where the position of an object is implied by its depiction, the superimposition of the reflected image upon the background or the name upon the addressee’s face produces an illusion of depth and of relation. In doing so, Donne effects a similar transformation of the world into a body to be anatomized as he performs the *Anniversaries*. The speaker compares the
name he has engraved into his lover’s window to his own body. He suggests she “think this ragged bony name to be / My ruinous anatomy” (lines 23-4), and goes on to explain how it will provide the frame for his reconstitution and resurrection when his “return repair[s] / And recompact[s] [his] scatter’d body” (31-2):

Then, as all my souls be
Emparadised in you—in whom alone
I understand, and grow, and see—
The rafters of my body, bone,
Being still with you, the muscle, sinew, and vein
Which tile this house, will come again. (lines 25-30)

This reconstitution of the speaker’s body from the “ruinous anatomy” of the name depends upon the shelter that his lover provides for the tripartite Aristotelian soul—the vegetative soul that provides growth, the sensitive soul that perceives, and the intellective soul that understands. His name provides the skeletal frame and rafters of the body, upon which “the muscle, sinew, vein / which tile this house” can be rebuilt. Such a resurrection necessitates a re-imagining of the whole body from its anatomized remains. This, however, presents a problem of perspective, solved only by the ability to understand the relation of the anatomized parts to each other, in which “muscle, sinew, and vein” grow to tile the bone frame of the body’s house. It is this complicated relationship of

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The Visual Scene of Anatomy in “An Anatomy of the World”

[The body of man, and consequently health, is best understood, and best advanced by Dissections, and Anatomies, when the hand and knife of the Surgeon has passed upon every part of the body, and laid it open.

(Sermons 9.11, 257)

Bodies are conspicuously absent from the First Anniversary. Although the poem announces itself as an “Anatomy,” the object of its investigation is the world as a whole, rather than the body or its interior. However, Donne’s process of analysis opens the world up to vision in the same way that an anatomist opens a corpse. The resulting image of the dying world, distorted by the tears of grief, mimics the transformation of the body under the action of anatomy—a process that simultaneously disorders, as it tears apart the corpse, and reorders, as it describes the structures which it discovers. In doing so, the poem reveals the world in detail, peeling away its surface to interrogate its interior.

It would, however, be indecorous to engage in an anatomical investigation of Elizabeth Drury herself. Instead, descriptions of the body are displaced from the “Anatomy” into the Second Anniversary, “The Progress of the Soul,” where they are primarily used metaphorically. “An Anatomy of the World” figures the death of Elizabeth Drury not as a symptom, but rather as the cause of the corruption of the world. While the poem proposes to “trie / What we may gaine by her Anatomy,” the object of
dissection and analysis is not Elizabeth Drury, but the world left behind after the loss of
her “inanimating” presence that held it together: the “Cyment which did faithfully
compact, / And glue all vertues” (lines 49-50). 235

The spatialization of anatomy, as a result, occurs in both the Anniversaries, in
which metaphors of surveying articulate the relationship between parts. In the Second
Anniversary, Elizabeth Drury’s body, like the reconstituted body in the “Valediction: of
my Name in the Window,” is a structure that houses the soul: “when t’was growne to
most, t’was a poore Inne” (line 175). However, the process of examining the body after
death transforms its interior into a far more extensive landscape, “A Province Pack’d vp in
two yards of skinne” (line 176), in the same way that an unrolled map reveals the space
inscribed within. 236 The logic of this depiction of the body in the Anniversaries is derived
from the conventional relationship between the microcosm and the macrocosm, between
the body and the world. In the sermon for Cockayne, for instance, Donne uses a textual
metaphor to describe the relationship between the body and the world:

The world is a great Volume, and man the Index of that Booke; Even in the body
of man, you may turne to the whole world; This body is an Illustration of all
Nature; Gods recapitulation of all that he had said before, in his Fiat lux, and Fiat
firmamentum, and in all the rest, said or done, in all the six dayes. (7.10, 272)

These images repeatedly use bodily parts to describe the organizing function of the body:
it is an index—a series of places marked by the first finger—or a recapitulation of the
world—a rhetorical division into parts under different heads. Such a conception implies a
strong hierarchy, as in his Devotions upon Emergent Occasions, where Donne describes the

236 See also, Caterina Albano, “Visible Bodies: cartography and anatomy” (2001).
order of the cosmos as “Nature’s nest of Boxes,” in which, “The Heavens containe the 
Earth, the Earth, Cities, Cities, Men. And all these are Concentrique; the common center to 
them all, is decay, ruine” (Devotions 51). The orderliness of this conception of the world is 
reinforced by the inscription of each of the outward concentric boxes inside those boxes 
that it contains. However, in another sermon, Donne reverses the relationship, claiming, 
The properties, the qualities of every Creature, are in man; the Essence, the 
Existence of every Creature is for man; so man is every Creature. And therefore 
the Philosopher draws man into too narrow a table when he says he is 
Microcosmos, an Abridgement of the world in little: Nazianzen gives him but his 
due, when he calls him Mundum Magnum, a world to which the rest of the world 
is but subordinate. (4.3, 16)

Donne suggests that the body is too extensive to be contained by the concept of the 
microcosm, which offers too narrow a “table” into which the body of man can be 
transcribed. Thus, paradoxically, the body is not an “Abridgement of the world in little,” 
but a great world in which the cosmos itself is contained—as if the order of “Nature’s nest 
of boxes” were reversed. This hierarchical inversion directs attention to the importance of 
the body as a figure of the world, as a site for exploration and mapping, as the “Anatomy” 
directs attention to Elizabeth Drury with descriptions that are cartographical, “She to 
whom this world must it selfe refer, / As Suburbs, or the Microcosme of her” (234-5). 
Thus, in the Second Anniversary, her body comes to contain the parts of the world:
The Westerne treasure, Esterne spiceree, 
Europe, and Afrique, and the unknownen rest 
Were easily found, or what in them was best;
And when w'have made this large Discoveree.

Of all in her some one part then will bee

Twenty such parts, whose plenty and riches is

Inough to make twenty such worlds as this (lines 228-34)

The relation between body and world transforms the parts of the world into parts of the body, making her body into a site of discovery in and of itself. Yet, once more Donne shies away from investigating her. He discovers, instead, both the essence of all that is best in each part and more unknown riches, sufficient “to make twenty such worlds as this.”

These configurations of macrocosm and microcosm offer a structure that encourages the intertextual reading of world and body. However, the process of anatomy invokes a very different set of practices for its observers than the act of reading does for readers. While anatomy functions as metaphor for analysis, the rhetorical process of unpacking the body is based upon the physical process of cutting up and examining the corpse. As Jonathan Sawday has argued, medical anatomy was a problematic process that provoked worries about its decorousness and its inherent violence. While Donne’s substitution of the body of the world for the body of Elizabeth Drury allows him to evade these problems to a certain extent, this substitution implicitly subjects her body to the violence of anatomy, authorizing its examination by its association with the body of the world.

The parallel between the reading of the body to which Donne directs attention in his funeral sermon and the act of dissection emphasizes the importance of the spectacle of

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the dead body. Academic dissection was only one of a series of anatomical practices in use in early modern Europe. The spoliation of saints’ bodies, the practices of autopsy, *caesarean* section and embalming all offered moments when the corpse was formally opened and examined outside the context of academic anatomy. These processes of interrogation and examination contrast with the purposes and processes of public anatomical examination, in which the bodies of criminals were publicly violated. Attempts to conserve the bodies of the blessed or the beloved, or to establish and formalize the cause of death, exist in tension with the formal process of academic anatomy with its organized didactic framework. As Katherine Park argues, the difference between these sorts of private investigation was particularly important in the case of female bodies. The female body was both a rarity and an oddity in academic dissection—though, paradoxically, better documented because of this status. However, in the private context, female bodies were not only common, but also more often subject to these processes. In particular, post-mortem attempts to save the child during birth via *caesarean* section, often became impromptu autopsies, in which the cause of death was ascertained. This complex of private practices was often seen not as a violation, but as an act of *caritas* towards the deceased. Donne’s use of the trope of anatomy in the *First Anniversary* draws upon both these valences. Donne signals his dependence on the formal academic practices of anatomy by his use of the term “dissection” (line 66). However, by presenting the world as the object of examination, Donne draws a metaphorical and analogical veil over his examination of the body of the dead daughter of his patrons. At

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the same time the poem attends to her memory when the narrator declares his intention of to “trie, / What we may gaine by thy Anatomy.” (59–60).

While bodies are laid out to be viewed at funerals, anatomy follows a different logic in which bodies are laid open and the interior exposed. The “Anatomy of the World” draws attention to the disjunction between the process of the anatomy, during which the body is opened up from the exterior, and depictions of the specular scene of the anatomy theatre, in which the interior of the body has already been revealed. While Donne is explicitly engaged in the investigation of the faults of the world, rather than the body of a young woman, the poem’s process of division and analysis comments upon and complicates our understanding of the action of anatomy, especially when juxtaposed with depictions of the internal structure of bodies in anatomical texts.239

The academic anatomy combined the visual and the rhetorical. Traditionally, there were three primary roles in the process of anatomy: the lector who read from text, the demonstrator or ostensor who indicated the parts described, and the sector who cut the body, although sometimes the roles of lector and ostensor were performed by the same individual. Knowledge, in this hierarchical organization, descended from the enthroned lector, via the demonstrator to the barber-surgeon who performed the dissection. In contrast to Donne’s construction of the relationship between text heard and body seen in the funeral sermon, in which the two texts are complicated by each other, the

demonstrator was responsible for co-coordinating the work of the lector and sector. These differences in status were emphasized by the fact that the *ostensor* often translated the Latin text into the vernacular for the benefit of both the audience and the ‘illiterate’ barber or surgeon.²⁴⁰

The formal structure of the academic dissection and, in particular, this use of the body as illustrative of the text, rather than a text to be read and interrogated in its own right, concealed the discrepancies between Galen’s description of the human body and the bodies examined during the process of anatomy. Donne’s metaphor of old men’s spectacles—“we looke ... upon the body of man, but with *Galens* ... Spectacles” (7.10, 260)—drawing attention to this disjunction. The textual knowledge associated with Galen impeded, overlaid and replaced the body under examination. This displacement of the body by the text starkly contrasts with the description of reciprocal reading that Donne provides in the same funeral sermon on Sir William Cockayne, in which the body is a second text that complicates the understanding of the text read from the pulpit. However, as Andrea Carlino shows in his careful analysis of depictions of anatomy in printed frontispieces during the sixteenth century, this hierarchical organization of academic anatomy was by no means stable. A vigorous tradition of contested anatomy, in which academic figures opened the body together and argued over its contents, developed during the first half of the sixteenth century, finding its culmination in the new practices publicly advocated by Andreas Vesalius (1514–64).

²⁴⁰ Carlino, *Books of the Body* (1999), provides a careful account of the transition between these two versions of anatomical practice based upon title page engravings in anatomy texts.
Vesalius’ *De humani corporis fabrica* (1543) presented itself as a radically new method of anatomy, offering an account of the form of the human body alongside a series of impressively detailed woodcut illustrations—the most famous of the sixteenth century. In the introduction, Vesalius claimed Galen’s methodology as his own, portraying himself as the inheritor of the project of describing the human body through anatomical dissection. At the same time, he critiqued and amended Galen’s descriptions of the human body, which had been based upon comparative anatomy carried out on animals. While not, as has long been claimed, the first anatomist to make this transition, Vesalius was the most successful proponent and propagandist for this new method. He and the other new anatomists opened and examined the body themselves, reading the anatomized corpse as a text which they described to their audience. The title page of the *De Fabrica* deliberately draws attention to the difference between Vesalius’ new conception of anatomy and this traditional model (Figure 1). In contrast to his predecessors’ reluctance to abandon Galen’s textual account of the body, Vesalius adopted a new, authoritative role for the anatomist that replaced these three figures. He is depicted heroically in the center of the engraving, looking directly at the viewer—the only figure to do so. Vesalius demonstrates his mastery over both the body and the observers, while the barbers are displaced to the foot of the table, where they squabble over which of them will sharpen the anatomist’s blades.
Figure 3.1. Title Page, Andreas Vesalius, *De fabrica*. Basel, 1543.
The scene of anatomy in the *De Fabrica* is carefully perspectival. The depth of the space is emphasized by the upward curving lines of the dome of the space. The horizon line runs through the picture at the level of the second tier of seating (visible on the left and right), directly through the heads of Vesalius and the corpse and just below the visible right knee of the skeleton. Above, below and to either side we see the crowd of those attending the dissection, some of whom appear to be following the lecture in a text. Variously attentive and distracted, these observers display the human body in a multiplicity of poses and attitudes, demonstrating a variety of modes of perspectival depiction. This aspect of the title page is emphasized by the appearance of the anomalous naked figure hugging a column on the left hand side of the title page. This variety of viewpoints is coordinated by the mediating figure of the anatomist who draws our attention away from this complex of observational activity towards the two other contrasting figures in the center of the picture: the skeletal figure bearing a magisterial rod (a scythe from the second edition onwards) and the female corpse under examination. These two bodies seem to offer themselves for demonstrative and emblematic purposes. The skeleton represents death and the woman, with her open womb, birth. At the same time, the (presumably male) skeleton presents itself as the structure in relation to which her flesh will be read. Despite this pairing, the female body undergoing anatomy dominates the space: a woman’s body, her abdominal cavity and genitalia open for examination by the crowd. The figure stands out as the visual focus of the scene, as a naked woman’s body at the center of a masculine crowd, and for the gaping wound/womb at the centre point of the picture. She also draws attention because she is
portrayed foreshortened—exaggeratedly so, such that her body seems propped up on an angled plane, with her feet pointing toward the implied viewer.

This perspectival construction seems to distort the body under anatomy because the desire to display her body conflicts with the need to define her status as a body to be anatomized. The necessity of this distortion is made clear in an anatomical scene from Jean Riolan's *Encheiridium anatomicum et pathologicum* (1649), in which the body under examination is deliberately turned forward to display the viscera (Figure 2). As the awkward, posed figures of the anatomists suggest, the organization of this scene is not intended to represent the practice of anatomy, but rather to display those involved—both the anatomists and the corpse under dissection—to the reader. A similar effect is at work in the title page of the *De Fabrica*. Although the horizon line sets the viewpoint at about the same level of the gaze of Vesalius and the other figures standing around him, the distance point construction pushes the implicit viewpoint away from the picture. Rather than crowding round the table like the figures observing the dissection, we are offered a topographical view of the figure under examination, like the observers surrounding the corpse.

Whether as an illustration of a medical text read to students or as a public exploration of the human body, anatomy was primarily a visual scene, though one in which the other senses were involved and engaged: the lecture juxtaposed visual examination with the spoken account of the process, the scent of the decaying corpse,
Figure 3.2. Title Page, Jean Riolan, *Encheiridium anatomicum et pathologicum* (1649).
and the delicate touch of the anatomist.\textsuperscript{241} Anatomy theatres were arranged to allow as many observers as possible a clear view of the anatomy. It drew upon the forms of the classical theatre as well as less reputable structures, such as cock and bear pits, all of which were designed as places for performance and display.\textsuperscript{242} The raised tiers on which the spectators stand enabled a larger group to witness the anatomy and, by elevating their viewpoint, allowed them to look down onto the body under dissection (Figure 3.3).

The famous anatomy theatre in Padua, built under the instruction of Hieronymus Fabricus ab Acquapendente (Girolamo Fabrici, 1533-1619), provides a striking example of an anatomy theatre arranged to provide the best views of the anatomy to as many observers as possible. The theatre is renowned for its elliptical shape, supposedly drawing on the ship-building technology of the Venetian republic. Within, a series of six tiered viewing balconies, starting from a floor above the dissection area, allowed up to around two hundred spectators to witness the anatomy. Whereas in other anatomy theatres, the observers would at best have had a slightly elevated view, in Padua, the gathered spectators standing on the balconies were able to look directly down upon the body during the process of dissection. In other words, rather than looking at the surface of the body, they looked into the depths of its interior as the dissector cut into it.

Despite the elaborate nature of these viewing arrangements, it is unclear exactly to what extent, and in what detail, the observers would be able to see the process of

\textsuperscript{241} Donne was well aware of this complex of sensory impressions, as suggested by his description of synaesthetic confusion: “Nor smels it well to hearers” (“Anatomy” line 441). See Zalig Pollock, “The Object and the Wit: The Smell of Donne’s First Anniversary” (1983).

dissection. Cynthia Klestinec suggests that it would be “difficult for students, standing
beyond the first two rows, to see the minutiae of anatomy,” especially in contrast to the sorts of visual and palpable investigation which were possible in the adjoining room where the body was prepared. While Klestinec instead emphasizes the importance of the sense of hearing in this setting, I want to suggest that vision is conceptually, if not practically, vital to the function of the space. Rather than emphasizing the importance of “minutiae,” observation within the theatre was primarily synoptic: the anatomized body was displayed such that the observers could see the whole structure at once, laid out before them—as if they stood on Donne’s watchtower.

While, in practice, Fabrici’s anatomy lectures were often seen as unsatisfactory by his students, the new anatomy theatre provided a conceptual framework for understanding the process of anatomy. There was strict separation of activities between the main theatre, in which Fabrici lectured during public dissection, and the adjoining space, in which his students prepared the body for anatomical demonstration. In this separate space, the fragile structures that Fabrici intended to describe were isolated, and the students had the opportunity to touch the organs of the body and examine them closely as the corpse was prepared. By contrast, the theatre itself was a site in which the body was organized by the processes of dissection and rhetorical description central to the act of academic anatomy, as the emphasis upon *historia*, or description, makes clear. The result was not only an account of the structures of the body, but of the relationships between them.

This relational conception of public anatomy, in which the minute examination of the individual parts of the body is subordinated to their articulation and structuration, is

readily apparent in the series of anatomical depictions created to illustrate the *De Fabrica*. These woodcuts struggle to depict the relations between the parts of the body, but in a manner very different from the problems encountered during the process of anatomy. The main series of anatomical illustrations in the *De Fabrica* consist of a series of lively posed figures at various stages of anatomy—the bone men, muscle men, and veined men—in which different strata of the body are displayed to the reader. Book One describes the bones and cartilage, building up the frame of the body from its component parts. Individual bones and clusters of bones are displayed in numbered illustrations (*prima, secunda*, etc.) so they might be more clearly discussed. Each of these, moreover, is carefully labeled with letters identifying (and implicitly separating) the parts of each bone. It is only at the very end of Book One that we find the first three plates showing the complete skeleton—from the front, the side and the back (163-165, see Figure 3.4). By contrast, Book Two, on the muscles, opens on its second page with the first of the muscle-men (173, Figure 3.5). As their seeming liveliness suggests, they are hypothetical rather than real figures, composites pieced together from the anatomy of separate parts. While the depiction of the bodies (with the exception of the side-view in the second plate) follows the order of the anatomical process, as the muscles are stripped away from the body in sequence, this anatomy of the whole body was contrary to the actual practice of anatomical dissection.

The backdrop against which these figures are displayed thematically organizes these depictions of the strata of the body. Each figure is shown before a series of ruined

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244 See for instance, the three views of the scapula (94) or of the bones of the hand (115).
Figure 3.4: Humani corporis ossium caeteris. Andreas Vesalius, *De fabrica* (1543).
Figure 3.5: Prima musculorum tabula. Andreas Vesalius, *De fabrica* (1543).
buildings in a pastoral setting.245 The bones of the ancient buildings make an explicit parallel between Vesalius’ excavation of the body in anatomy and that of ancient architecture—between the frame of the body and the frame of the building. More importantly, the individual backgrounds fit together to form a continuous landscape that has sometimes been identified as Padua. By doing so, the images draw a parallel between panoramic vision and the topological structure of a body stripped of skin and muscles by the action of anatomy. This panorama, moreover, presents a contrasting ordering of the anatomized figures, because the sequence of illustrations in the De Fabrica and the composition of background are at odds. The landscape reverses the order of the plates, running right to left instead of left to right, offering a series of views in which the body is built up rather than stripped away.246

Vesalius himself comments on the organizational difficulties suggested by this ordering of images at the beginning of Book II, explaining:

I shall place at the beginning of this book a series of sixteen tables, which will apply to nearly all the chapters of Book II; they could just as well have been placed at the end and at the beginning of the book. The first fourteen show whole figures. Table I shows a frontal view of the male body, Table II a lateral view; Tables III, IV, V, VI, VII and VIII also show a frontal view, and slightly to one side or the other depending upon the nature and location of the muscles portrayed. The six that follow Table VIII show the body from that the features

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depicted in any one illustration can be seen in the next one cut away and hanging from their insertion. Each table showing a frontal view has a corresponding one showing a rear view; thus Table III could have been followed by Table IX and then in order by IV, X, V, XI, VI, XII, VII, XIII, VIII, and XIV. You would therefore do well to study these muscle illustrations in both these orders. (De Fabrica, Book II, 1)

These contrasting orderings draw attention to the difficulties of depicting the structure of the body, with its imbricated layers. Any given illustrative or rhetorical order displaces or encroaches upon its alternatives, effacing the multiplicity of connections in favour of following one sequence. This problem is replicated in the rest of the chapter: the book goes on to examine the muscles of the body part by part (the leg, the arm, the eye, etc.), as well as offering a digression on the instruments of anatomy, but warns of the difficulties of such an attempt. Vesalius admonishes the reader,

Do not be satisfied with studying a particular muscle in only one figure, even if I have marked it with a symbol; in order that you may see where each one is prominent or lies under another, you should look for it in all the plates, and examine especially in those where the whole is exposed to view. (1)

Proceeding part by part is problematic because to do so neglects the relations between parts, presenting an understanding of the body that is broken into fragments: to see it as a

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247 These problems of division, distribution, and representation of the body are repeated and reflected by the anatomical activities performed by putti in the historiated initials of the book, which range from grave-robbing, to anatomy, to birth. However, their order, rather than following the arrangement of the book’s contents, is entirely dependent upon the first letter used in each chapter. In doing so, the initials replicate the random ordering of material which is alphabetized.
whole requires repeated viewing in variety of sequences, and from a variety of directions, in order to build up a conception of the structural integrity of the body.

These problems of order and organization are implicit in the *Epitome* of Vesalius’ anatomy, which reproduce some of the major illustrations of the *De Fabrica* without the accompanying discursive text. Instead, this abbreviated version offers a series of images of the strata of the body that may be cut out and super-imposed upon one another. The “flap book,” examples of which appeared both before and after the *De Fabrica* and the *Epitome*, offers another version of the series of attempts to address the challenges of depicting the interior of the body. These works—primarily produced by broadsheet printers as part of books or separately on what Andrea Carlino calls “anatomical fugitive sheets”—involve a series of layered sheets showing printed figures made out of flaps of paper, under which their internal organs are hidden. In the most complicated of these constructions, such as Remmelin’s *Catoptrum Microcosmicum* (1613), the layers are five or six sheets deep. These illustrations allowed the artist to portray the strata of the body—skin, nerves, bones and organs—and offered “one solution to the problem posed by the need to represent visually data which are intrinsically topographical.” (Figure 3.6) In this form, anatomical illustrations provide an experience analogous to dissection, in which readers are no longer passive observers, but able to explore the interior of the body themselves.

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Figure 3.6: Surface anatomy of female figure. Johann Remmelin, *Catoprum microcosmicum* (1639).
Ordering the Frame of Nature: Rhetoric, Vision and Anatomy

Anatomy was only one of a series of powerful early modern metaphors for the organization of knowledge that depended upon vision. As its figurative use suggests, this cutting apart also functions as a division of the resulting parts for analysis. Such analysis is deeply rooted in the rhetorical process of *divisio*, a process that also has clear anatomical overtones. For instance, Bacon begins his account of the plan of his *Novum Organum* with an act of partition:

> It is our plan to set everything out as openly and clearly as possible. For a naked mind is the companion of innocence and simplicity, as once upon a time the naked body was. And therefore we must first lay out the order and plan of our work. It consists of six parts.²⁵⁰

This bodily and visual conception of orderliness is inherently rhetorical, drawing a connection between the process of laying out an argument at its beginning, and the body laid out for the anatomist before the dissection begins. In both cases, an overview and enumeration of the parts to be examined precedes their investigation in detail. The orator or writer then proceeds to consider each section in turn, just as “the hand and knife of the Surgeon […] pass[es] upon every part of the body, and la[y]s it open” (*Sermons* 9.11, 257).

Dissection has a long history as a figure for knowledge, and particularly the division and identification of nature. Most famously, Plato, in the *Phaedrus*, expresses the

desire to “be able to cut up each kind according to its species along its natural joints, and
to try not to splinter any part, as a bad butcher might do” (265e). This desire to
separate nature into its parts, to dismember it, rests upon a conception of a body that
consists of divisible parts—in The Statesman, his interlocutors suggest that nature be cut
up “limb by limb, like a sacrificial animal” (287c). It presupposes that an external frame
imposed by dissection will not only be able to identify the natural divisions within the
body, but to cut along them. As the worry about the potential damage—the splintering of
bones, cut by a bad butcher—suggests, this conception of a correspondence between the
action of analysis and natural kinds is problematic (compare Figures 3.7 and 3.8).

Figure 3.7: Muscles of the foot and leg. Andreas Vesalius, De fabrica (1543).

251 See Phaedrus 265d-266a; Laura Franklin-Hall, “Plato’s Joints” (forthcoming).
252 Consider, for example the contrast between the cuts that separate a part (e.g. the
tongue, 252) from the body, and cuts that split that part open so that it might be examined (253).
Figure 3.9: Tertia quinti libri figura. Andreas Vesalius, *De fabrica* (1543).
Francis Bacon provides a critique of Plato’s metaphor in his description of the divisions of the *Advancement of Learning*. He suggests, “generally let this be a Rule, that all partitions of knowledges, be accepted rather for lines & veines, then for sections and separations: and that the continuance and entireness of knowledge be preserved” (93), offering an analysis of nature that follows the “lines & veines” rather than cutting across them. While they use contrasting metaphors, Bacon’s formulation betrays the same idealized conception of the philosophical investigation of nature. Like Plato, he imagines a system that follows the natural divisions of the body, rather than cutting across them. Where Plato offers a partible conception of nature in which the joints both articulate the parts’ relations and mark out their boundaries, Bacon conceives of natural knowledge as continuous rather than simply divisible, like the layered, overlapping and interconnected systems of muscles, veins and arteries in Vesalius’ depictions of the different systems of the body (Figure 3.9). This metaphor also recalls Bacon’s description of a branching tree or ramifying system of knowledge, suggesting that Plato and Bacon’s contrasting conceptions of the act of organization mimic the distinction Donne makes between visual and aural knowledge, between the acts of division that organize collections and the continuous movement of circuits. In doing so, Bacon emphasizes the importance of displaying the body as a whole, such that “the continuance and entireness of knowledge be preserved.”

These parallels between anatomical, logical and rhetorical investigation are often signaled in the titles of Renaissance compendia, such as Burton’s *The Anatomy of*
Figure 3.9: Venarum et item arteriarum omnium integra absoluta que delineatio. Andreas Vesalius, *De fabrica* (1543).
Melancholy. Like the “theater” (theatrum) and the “mirror” (speculum), the “anatomy” was an encyclopedic form that gathered together knowledge and presented it to the reader in an orderly fashion. All three of these forms depend upon a conception of vision as the ordering sense for knowledge. This conception is most readily apparent in the use of the synoptic tables, the methods of visual ordering primarily associated with, and popularized by, Peter Ramus. This relationship between vision and rhetoric is implicit in both the process of anatomy and the method of organizing material, in which a whole subject is taken in at a glance, displayed the formal divisio of a rhetorical work in the form of a branching diagram, as Walter Ong argued in his seminal book, Ramus and the Decay of Dialogue. These visual organizing tools were even used to order material on optics and geometry. The table that appears in John Dee’s famous Mathematical Preface to Euclid divides and organizes Euclid’s account of geometry into its various branches, offering an overview of the material to follow. Thus, for instance, Vesalius’ De Fabrica organizes the discussion of the first book by means of a “Typus Commissurarum Ossa Iungentium” or “table of the connecting joints of the bones” (De Fabrica 12). It is in terms of these logics of division and display, both rhetorical and anatomical, that I want to consider the organization of “An Anatomy of the World.”

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253 On anatomy metaphors in titles, see Barbara Lewalski, Donne’s Anniversaries and the Poetry of Praise (1973).
The First Anniversary divides its examination of the world into a series of sections—literally, cuts that separate the world into parts. It considers, first, the heart and health of the world; second, its frame and order; third, beauty, in two subsections on proportion and colour; and, finally, the correspondence between earth and heaven. This organization consciously takes the form and method of anatomy, not merely as a metaphor for investigative examination—as in works such as Burton’s famous Anatomy of Melancholy—but as a process of anatomical dissection, which divides the body of the world into sections, into particulars. Donne’s process of division and analysis during the “Anatomy” is directly addressed to this problem of ordering the world. The organizing metaphor of an anatomy, by cutting along the sections of heart, frame, beauty, and relation, produces categories full of jumbled parts: cross-sections, from which it is difficult to reconstitute the living body of the world before the moment of death.

As a process, however, anatomy had a double movement, reflected in the ordering of Donne’s poem. It began with a consideration of the exterior of the body and moved inward, cutting open and examining skin, then muscles, organs then bones. At the same time, the ongoing decay of the corpse—even in the cold months of January and February when dissections were customarily held—meant that examination began with corruptible viscera in the center of the body, before moving outwards to the extremities. Donne comments directly on these problems in the conclusion of the “Anatomy,” remarking that,

as in cutting up a man that’s dead,

The body will not last out to haue read

On euery part, and therefore men direct
Their speech to parts, that are of most effect;

So the worlds carcasse would not last, if I

Were punctuall in this Anatomy. (lines 435-40)

This emphasis on the analysis of the body by parts, rather than as a whole, suggests the patchwork nature of anatomical work, which bases itself on an examination of individual parts but sutures these analyses together to create a narrative. Likewise, the text of the “Anatomy” lays out the results of its examination sequentially, but these observations are insistently relational. The “Anatomy” moves from microcosm in the first section, where the health and longevity of man is considered, to the macrocosm in the final section, which describes the lack of correspondence between heaven and earth. In doing so, the “Anatomy” moves both forwards and backwards, remembering and dismembering its subject, Elizabeth Drury.

In this context, these individual sections of the poem can be understood as corresponding to the different strata of the body investigated during anatomy: the first section directs its attention to the health of the world as a whole, represented metonymically by Donne as the body’s heart; the second considers not only the frame of the world, but analogically the skeletal frame of the body; the third and fourth sections, on proportion and colour, can be understood as investigations of the muscles and outer skin; finally, the section on correspondences establishes the place of the body in the cosmos as a whole. Within each section, analysis moves from birth to death and ranges across earth and heaven—the reappearance of these topics within each section suggests the arbitrariness of the division and the harm done to the body of nature.
Each section of the poem is divided from the next by a refrain, the repeated
lament that “Shee, shee is dead; shee’s dead: when thou knowest this, / Thou knowest…”
(lines 183-4, 237-8, 325-6, 369-70, 427-8), which is followed by a summary of the
preceding section. The reader learns first, “how poore a trifling thing man is” (184); then,
“how lame a cripple this world is” (238), “how ugly a monster” (326), “how wan a Ghost”
(370); and finally, “how drie a Cinder” (428). The poem follows each of these with a
more explicit lesson: it informs the readers that we have “lern’st thus much by our
Anatomy,” in the first section, for instance, that “The heart being perish’d, no part can be
free” (lines 185-6). As the analysis proceeds, this summary brings together the discoveries
of the previous sections, and directs attention to the next section of the analysis. Thus, in
the second section, on the frame of the world, the refrain is followed by this lesson:

And learnst thus much by our Anatomy,
That this worlds generall sicknesse doth not lie
In any humour, or one certaine part;
But as thou sawest it rotten at the heart,
Thou seest a Hectique feuer hath got hold
Of the whole substance, not to be contrould. (lines 239-44)

The failure of the previous sections—of health and frame—leads to the conclusion that
the world is overwhelmed by a metaphorical “Hectique fever,” introducing the subject of
the following two sections on the loss of beauty, where “the worlds beauty is decayd, or
gone, / Beauty, that’s colour, and proportion” (lines 249-50). In the subsequent sections,
these failures of health and frame are discovered spreading throughout the body. The
third and fourth sections describe faults of proportion and colour, suggesting the
distortion and discolouration of the body after death. In the section on colour, in particular, there is a marked resemblance between the dying world and the outward appearance of a dead body, with the skin faded and the blood “inward sunke” (358). The final section addresses the relationship between the body and the heavens in terms of the correspondence between celestial influences and the earth.

Critical attempts to divide the sections consistently disagree about exactly where one section ends and the next begins, because connecting sections include matter that is applicable to both parts. Catherine Gimelli Martin in her analysis of this process of division, for instance, claims that the *Anatomy of the World* can be read as “a thinly disguised assault on Bacon’s *The Advancement of Learning*.” Her argument depends on two propositions: the idea that Donne and Bacon offer contrasting chronological schemes—based upon a simplification of Achsah Guibbory’s arguments in *The Map of Time*—and the similarity between the ordering of the “Anatomy” and the *Advancement*, in particular, the synoptic table which Brian Vickers appends to his edition. The first proposition is at best arguable: there are important differences in Donne and Bacon’s approaches, but hardly sufficient to claim that Donne’s poem is a parody. However, her dependence upon the relationship between synoptic tables and the ordering of the “Anatomy” is extremely problematic. Her argument founders because, upon closer examination, the *Advancement* and the “Anatomy” are no more alike than any two rhetorically ordered descriptions of early modern knowledge. Despite her ingenious attempts to construct parallels between the two, as she herself admits, there are discrepancies in their organization. Indeed, the fault in her argument exactly parallels the

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problem implicit in Donne’s poem and in any attempt to divide and organize nature. Martin’s reading imposes an exterior framework, instead of discovering the interior logic of the poem itself, and in doing so, reduces the body of the “Anatomy” to disordered hunks and splintered bones.

Contrary to such reductive analyses of the poem’s organization, these refrains and summaries, in fact, act as joints rather than clean dividers, organizing and articulating the connections between the sections. The marginal attempts to identify the parts of the poem—inserted between the first and second printings—pose the same interpretative problems caused by division that Plato warns against: even when carefully conducted the act of cutting apart a whole risks mutilating the parts. Instead, the dissection into one set of parts produces cross-sections of other potential divisions, in which “lines and veines” that run through the body can be inspected in a way that is directly analogous to the use of cross-sections in anatomy (Figure 3.11).

For instance, like the title page of the De Fabrica, which centers upon the womb of the dissected female corpse, the poem thematizes birth, but descriptions of birth are not gathered together in one place in the poem. Instead, each section of the “Anatomy” begins with instances of actual or metaphorical birth. The first section, opens:

We are borne ruinous: poore mothers crie,
That children come not right, nor orderly,
Except they headlong come, and fall upon
An ominous precipitation. (lines 94-7)

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See, for example, arguments about the divisions between sections in Martz, Manley, Lewalski and Tayler. Although marginalia in the printed poems identifies the sections, these labels are not necessarily Donne’s own, because they only appear in the second printing of the poem.
This short passage is deliberately ambiguous: Donne inverts the meaning of “right” and “orderly” by reading the process of birth allegorically. By associating the head-first birth of children and the saltiness of the waters with a disastrous inversion of the natural order, Donne transforms the sin-filled female body into a faulty microcosm of a world overrun by ominous prodigies. These parallel failures of conception, in the human body and in meteorology, reappear in the fifth and final section of the “Anatomy,” not in the body,
but in the skies. Instead of the “ominous precipitation” which accompanies birth in the first section, here the sky is barren:

Nor in ought more this worlds decay appeares,
Then that her influence the heau’n forbeares,
Or that the Elements doe not feel this,
The father, or the mother barren is.
The clouds conceive not raine, or doe not powre
In the due birth-time, down the balmy showre.
Th’Ayre doth not motherly sit on the earth,
To hatch her seasons, and giue all things birth.

Spring-times were common cradles, but are toombes,
And false conceptions fill the generall wombes. (lines 377-86)

Where earlier, the birth pangs of each woman were symptomatic of the sickness of the whole world, here nature is personified as a mother whose failures of fertility are general rather than particular. The sterility of “Spring-times” explains the “false conceptions” of individual mothers, while the whole world is but a dry cinder without the balm of Elizabeth Drury’s presence.

The relationship between the sections of the “Anatomy” and the underlying divisions in its frame come to the fore in the second section of analysis, the consideration of the frame of the world, from which the “New Philosophy” passage is drawn (lines 191-238). Both in this section and elsewhere in the poem, the term frame is used in Kalas’ second meaning. It denotes the underlying structure of the world—its rafters and pillars—rather than an exterior, visual or analytic framework imposed upon it. The poem
describes the faults of a world which has taken “a generall maime / Wronging each ioynt of th'universall frame” (196-7). Donne posits a direct correspondence between the microcosm and macrocosm, arguing that, “Then, as mankinde, so is the worlds whole frame / Quite out of ioynt, almost created lame” (190-1).

This “Disformity of parts,” as the section is described in the printed marginalia, offers a template for understanding distortion in terms of anatomical anamorphosis.\(^{259}\) While the individual sections of the poem divide the dying world into separate parts, the material that appears within them is deformed and distorted as a result of the process of dissection. Francis Bacon is often described as advocating that natural philosophers should interrogate nature by means analogous to torture. As Peter Pesic has suggested, his metaphorical descriptions of experimentation are more closely related to the allegorical figure of Proteus and attempts to firmly grasp his elusive form.\(^{260}\) Yet both these conceptions of the process of investigation focus on the transformations of the body of nature in response to analysis and its tendency to twist and turn, to reshape itself. The resulting forms of nature most closely resemble the body that Donne portrays in “Love's Exchange,” which ends with the plea by the speaker:

if I must example bee

To future Rebells; If th'unborne

Must learne, by my being cut up, and torne:

Kill, and dissect me, Love; for this


Torture against thine owne end is,

Rack’t carcasses make ill Anatomies. (lines 37-42)

The image of “Rack’t carcasses” offers a particularly useful metaphor for the problems of representation and analysis with which the “Anatomy” is concerned. Donne’s description of the twisted frame of the world implies that the body examined by anatomy is itself distorted by the process of investigation. In the “Anatomy,” the body of the world discovered by analysis of its parts is similarly contorted, as the effects of the disjointed frame of the world carry over into the section on proportion: “But yet confesse, in this /
The worlds proportion disfigured is, / That those two legges whereon it doth rely, /
Reward and punishment are bent awry” (301-4). In this image, while nature appears on the rack, it is the reader who is driven to assent to the deformity of the world by the terrifying sight of its agony.

Throughout the section, this distorted image of the world can only be understood by reference to the perfectly proportioned body that has been lacking since the death of Elizabeth Drury. In her absence, grief and disproportion become linked together, suggesting the distorted vision seen through the “false spectacles” of tears:

And, Oh, it can no more be questioned,

That beauties best, proportion, is dead,

Since euen griefe it selfe, which now alone

Is left us, is without proportion. (301-4)

As in the process of anatomy, these distortions and failures of vision that appear in the “Anatomy” are contrasted with the ideal form of Elizabeth Drury portrayed in the “Progress,” where she appears idealized, as one “To whose proportions if we would
compare / Cubes, th’are unstable; Circles, Angulare;” (“Progress” 141-2). In making this comparison, Donne draws attention to the disjunction between earth and heaven, and in doing so directs the reader to consider the night sky.

“Eccentrique parts”: Astronomy in “An Anatomy of the World”

The image of the world that appears as a result of Donne’s dissection of nature in the First Anniversary closely resembles the shape of the anatomized body. The implications of this anatomical distortion are worked out most fully in the analysis of astronomy that runs through each of the analytic sections of the poem. The basis of this discipline in the observation of heavenly phenomena, in combination with the mathematical frameworks used to predict the movements of celestial bodies, offers another problematic relationship between surface and frame. In the poem, the violence done to the heavens by the processes of astronomy—whether Copernican or Ptolemaic—implicitly suggests the violence that anatomy inflicts upon the body of Elizabeth Drury. In the introduction, the world after the death of Elizabeth Drury retains some effects of her presence:

And though she have shut in all day,

The twi-light of her memory doth stay;

Which, from the carkasse of the old world, free

Creates a new world; and new creatures be

Produc’d….

(73-7)
This new world, however, is primarily celestial rather than terrestrial, and takes the form of a reflection. Galileo’s observations haunt the poem, inspiring the depiction of Elizabeth Drury:

For there’s a kind of world remaining still,
Though shee which did inanimate and fill
The world, begone, yet in this last long night,
Her Ghost doth walke, that is, a glimmering light,
A faint weake loue of vertue and of good
Reflects from her, on them which understood
Her worth. (67-73)

This image of the faint light reflected from the body of Elizabeth Drury suggests a connection with the reflective, “secondary” light of the earth on the body of the moon. As Eileen Reeves explains in her book Painting the Heavens, the relationship of the moon to the Virgin Mary played itself out in complicated ways in the light of early seventeenth-century astronomical observation and artistic depiction.²⁶¹ Both astronomers like Galileo and artists like Rubens were interested in the optical effects of light and shadow produced by reflection off of opaque bodies, and their close observations of the moon showed that when its lit portion was obscured, the remainder of the moon could still be seen in appropriate conditions, faintly lit by light reflected off the Earth. Because the Virgin Mary had long been associated with the purity and transparency of the moon, depictions of her during this period became embroiled in Galileo’s observations in the Siderius

Nuncius, which suggested that the moon was not the immaculate celestial body that both Aristotelian natural philosophy and theological exegesis suggested it was. In these circumstances, Donne’s portrayal of Elizabeth Drury as a faint ghost-like light closely allies her image not only with the Virgin, but also with celestial phenomena. This reciprocal attention to Earth and Heaven draws attention to a similar reciprocity between these bodies throughout the poem.

In the first section of the anatomy, the decline of mankind is portrayed as inhibiting knowledge, because man does not live long enough to be able to see the reappearance of stars:

When, if a slow-pac’d starre had stolne away
From the observers marking, he might stay
Two or three hundred yeares to see’t againe,
And then make up his observation plaine (116-9)

Astronomical knowledge here functions as a synecdoche for knowledge as a whole. Indeed, astronomy is portrayed as the highest sort of knowledge because it is a type of the knowledge of heaven (“and when the very stature thus erect, / did that soule a good way towards heaven direct,” lines 125-6). The loss of knowledge is associated with the loss of longevity that man possessed in his earliest days on the Earth, “When as the sunne, and man, did seeme to strive, / (joint tenants of the world) who should survive” (113-4). Man is now reduced not only in knowledge and longevity, but also in stature, “mankind decayes so soone, / We’re scarce our Fathers shadowes cast at noone” (142-3). This reduction in stature and frame signals the transition to the second section in which the frame of the world is at fault.
The second section of the “Anatomy” moves from microcosm to macrocosm, as
it analyzes the frame of the world as a whole:

Then, as mankind, so is the world’s whole frame
Quite out of joint, almost created lame

[...]

The world did in her cradle take a fall
And turned her brains, and took a general maim

Wronging each joint of the universal frame. (191-2, 196-8)

This description of the failure of the frame of the world derives from the worries
associated with the so-called dissolution of the crystalline spheres, which Donne
addresses in the “new Philosophy” passage.\(^\text{262}\) As in the previous section, the health of the
world is closely associated with the coherence of its underlying structure. Although
Donne’s phrase, “And New Philosophy puts all in doubt,” refers specifically to
Copernicus’ theory of a sun-centered cosmos, the physical and conceptual dissolution of
order that he portrays is bound up with Galileo observations with the telescope,
published in the\textit{Sidereus nuncius} (1610).

While today it seems entirely natural to conceive of the solar system as organized
by the invisible force of gravity, early modern astronomy was preoccupied with how the
planets moved in the heavens if there was no physical structure to support them. Donne’s
representation of the breaking of the frame of the world in this section of the poem (lines
191-246) provides an archetypal image of the failure to see. This blindness is not literal,
but rather a representation of skeptical doubt and the failure of the intellect to direct

vision successfully amongst the myriad of particulars produced in an atomized world. While the sun is as visible as it was before, the inability to distinguish between objects when their multiplying numbers are not framed by an orderly cosmology is transformed into an inability to see the source of all light. That absence of light, itself a metaphor both for the absence of God and for the failure of the intellect, poses the question of whether there has been a breakdown of God’s order or of man’s ability to know that order. The imagery of this passage places it in striking contrast to the new-found visibility of the heavens as seen through the telescope. This disordered cosmos stands in stark opposition to the stability of the cosmology portrayed by works such as E. M. W. Tillyard in *The Elizabethan World Picture*. The transformation of the earth which Donne portrays in this passage marks the transgression of the knowledge gained from astronomy, conventionally restricted to “saving the appearances,” across the boundaries of physics, an Aristotelian science founded upon an understanding of causes.

By moving from a geocentric to a heliocentric system, Copernicus’ astronomical model of the universe involved the reclassification of a number of different objects in the heavens in ways that are not immediately comprehensible to those familiar with the terminology of modern astronomy. Any discussion of the status of celestial bodies from the classical through to the early modern period is complicated by an overlapping vocabulary within which the same objects are differently classified using the same nomenclature. In classical astronomy, the term star, or *stella* in Latin, was used to refer indifferently to both the fixed stars—the stars of the ninth sphere of heaven, which appear to move in unison across the night sky—and the wandering stars—the planets.

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The seven planets, however, included both these wandering stars and the sun and moon. To reclassify the sun as the center of the universe and the earth as a planet not only inverted the order of the cosmos, but transformed the both the planets and the term “planet” from uninhabitable stars into habitable worlds.\textsuperscript{264}

While this conception of the planets as worlds had been available since it was proposed by the Pythagoreans, it had generally been discounted, and indeed ridiculed. Although Galileo deliberately did not frame his observations with the telescope in the context of Copernicus’ work, other writers—most importantly, Kepler, in his \textit{Dissertatio cum Sidereo Nuntio} and the \textit{Somnium}—were eager to adduce his observations as evidence to support the Copernican hypothesis. Galileo’s descriptions of the Moon and the so-called Medicean stars suggested, in different ways, that the wandering stars might be like the Earth. The account of the Moon as a globe with mountains and valleys—and, thus, perhaps woods, seas, and inhabitants—implied that it, too, was a world, and the discovery of satellites orbiting around Jupiter placed that planet in the same category as the previously exceptional earth. This recategorization of astronomical bodies necessitated a reconceptualization of the frame of the heavens as a whole. Without the nested structures of the Ptolemaic crystalline spheres, the regions of the lunar sphere and beyond could no longer be conceived of as perfect or inviolate. Rather, the heavens offered a mirror image of the disruption on earth.

The disorder of the heavens is most prominent in the section on proportion (lines 247-338). It is here that our understanding of the distorted body under the action of anatomy is most useful. In this section, the perceived faults in the heavens prompt Donne

\textsuperscript{264} See Shea “Looking at the Moon as another Earth” (2000); Mary Baine Campbell, “Alternative Planet: Kepler’s \textit{Somnium} (1634) and the New World” (2002).
to complain that we have learned “how ugly a monster” the world is. In doing so, he
suggests Copernicus’ description of the monstrousness of the heavens in his preface to the
De Revolutionibus:

they have not been able to discover or deduce from the chief thing, that is the
form of the universe, and the clear symmetry of its parts. They are just like
someone including in a picture hands, feet, head, and other limbs from the same
body, and not in the least matching each other, so that a monster would be
produced from them rather than a man.265

Copernicus’ simile draws attention to the failure of Ptolemaic astronomers to produce
consistent mathematical models of the heavens. He implies that the Ptolemaic hypothesis
fails because of its inability to comprehend the underlying frame of the universe.

However, to do so, as Robert Westman and Fernand Hallyn point out, Copernicus draws
upon the opening of Horace’s Ars Poeticae:

If a painter chose to join a human head to the neck of a horse, and to spread
feathers of many a hue over limbs picked up now here now there, so that what at
the top is a lovely woman ends below in a black and ugly fish, could you, my
friends, if favoured with a private view, refrain from laughing?266

Horace’s image of botched and absurd painterly making offers, via the trope of ut pictura
poesis, a prescriptive admonition for poetic practice, censuring incompetent imitation in

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265 Copernicus, “To His Holiness Pope Paul III: The Preface of Nicolaus Copernicus to
the Books of the Revolutions,” On the Revolutions 25.
266 Horace, Ars Poeticae, trans. H. R. Fairclough (1929) 450-1, lines 1-5: “Humano capiti
cervicem pitor equinam / iungere si velit, et varias inducere plumas / undique collatis
membris, ut turpiter atrum / desinat in piscem mulier formosa superne, / spectatum
admissi risum teneatis, amici?” See Westman, “Proof, Poetics, and Patronage” (1990);
which the parts brought together are visibly different. Whether or not Donne was aware of this use of the trope in the *De Revolutionibus*, his formulation suggests that his description of this monstrosity draws upon Horace in the same fashion as Copernicus. He conceives of beauty as dependent not simply on proportion, but on a proportion of parts and their consonance with each other. Horace’s image of painterly and poetic juxtaposition, in which the bodily parts of different beasts are grafted onto each other, suggests both the connection of frame and form, and the dependence of beauty upon both colour and proportion.

These metaphors describe the heavens as made up of ill-fitting and monstrous parts. The night skies were often depicted as full of creatures from which such an assortment of parts might be drawn. These bodies, in turn, were sometimes grafted onto the human body, as in depictions of the medical correspondences between bodily parts and constellations, as in the so-called zodiac man (Figure 11). Even seen scattered across the night sky, the constellations appeared as a chaotic and ill-fitting assortment of figures. Allegorical depictions of the heavens, such as the astrological ceiling in the Vatican painted by Ottaviano Mascherino and Giovanni Antonio Vanosino (1575), show them as a series of mythological figures strung out along the *Via Lactea*, variously wrestling, fighting and fleeing from each other. These images of the heavens are pointedly at odds with a conception of divine handiwork as elegant and perfectly proportioned, instead more closely resembling the faulty handiwork of man, the ape of nature.

On this painting and similar depictions, see Jacob Hess, “On Some Celestial Maps and Globes of the Sixteenth Century” (1967).
Figure 3.11: Zodiac man. Johannes de Ketham, Faciculus medicinae (1522).
The connection between these images of monstrous bodies in the heavens and the frame of the universe play out throughout the section on proportion. In this section, Donne uses the distortion of symmetry and shape as a literalization of the effects of human attempts to perceive and order the world and heavens by the use of techniques of measurement. The poem questions how the interior frame, especially one quite “out of ioynt,” is related to the appearance of the proportions of its surface. In the resulting world, “[a]ll...proportion’s lame, it sinks, it swels” (277) and the heavens are full of striking images of disorder that seem connected to the disappearance of the sun and moon in the ‘new Philosophy’ passage. Instead, however, they present a very different type of visual disorder—not blindness, but distortion:

We thinke the heauens enioy their Sphericall
Their round proportion embracing all.
But yet their various and perplexed course,
Obseru’d in diuers ages doth enforce
Men to finde out so many Eccentrique parts,
Such diuers downe-right lines, such ouerthwarts,
As disproportion that pure forme. It tears
The Firmament in eight and fortie sheeres,
And in those constellations there arise
New starres, and old do vanish from our eyes. (251-60)

Mapping the sky involved relating celestial phenomena to an underlying system of reference. In Donne’s depiction, however, the results of this process are not the ordering of stars and planets, but a tearing and disproportioning of the “pure form” of the
heavens—as if the process of surveying was an attempt to dissect and open the night sky, to cut it into “eight and fortie sheeres.” Like the cuts of a bad butcher, astronomy’s divisions of the sky are unnatural: they are a frame laid over the heavens, rather than one discovered within it.

The “Anatomy” depicts the failure of astronomy to identify the frame of the heavens correctly. Instead, it depicts the boundaries of the sky’s sections as constraining physical frames that order the movements of the heavens. Astronomers, the poem claims, have impayld within a Zodiake

The free-borne Sun, and keepe twelve signes awake

To watch his stepps; the Goat and Crabbe controbre,

And fright him backe, who els to either Pole,

(Did not these Tropiques fetter him) might runne:

For his course is not round; nor can the Sunne

Perfit a Circle, or maintaine his way

One inche direct; but where he rose to day

He comes no more, but with a cousening line,

Steales by that point, and so is Serpentine:

And seeming weary with his reeling thus,

He meanes to sleepe, being now falne nearer vs.

So, of the Starres which boast that they doe runne

In Circle still, none ends where he begunne. (263-76)

Despite these attempts to order the movements of the stars, observation of the heavens consistently discovers disparities between the movements of the heavens and the textual
account of those movements. There is, thus, an equally problematic relationship between early modern observational astronomy and vision through Ptolemy’s spectacles, as between post-Vesalian anatomy and Galen’s spectacles. In both cases, new practices of observation contradict textual accounts of objects observed, revealing that the texts had falsely conditioned previous observations.

New methods of vision are, however, equally suspect. The distortion of the sky in the poem also appears as the result of magnification in the section where Donne describes the effects of the telescope. Donne laments the inability of man to aspire to the stars, and instead the stars merely seem to move because of magnification, as we saw in Chapter One:

All their proportion’s lame, it sinkes, it swels.
For of Meridians, and Parallels,
Man hath weav’d out a net, and this net throwne
Upon the Heavens, and now they are his owne.
Loth to goe up the hill, or labor thus
To goe to heaven, we make heaven come to us.
We spur, we raine the stars, and in their race
They’re diversly content to’obey our pace. (277-83)

Donne’s description transforms the theoretical and methodical activity necessary for predicting the movements of the heavens into the ability to order and constrain their movements, and contrasts the laborious ascent of the hill of truth with the decision to “make heaven come to us.” As in depictions of the seemingly magical ability of Galileo’s telescope to “draw down the moon,” which I discussed in Chapter One, the result is a
heaven in which the movements of the stars obey rather than govern the inhabitants of the terrestrial globe. Yet, such claims to governance are suspect because they introduce into the heavens the faults of earthly life: the disorder in heaven is depicted as a reflection of the disordered earth, “As though heau’n suffered earth quakes, peace or war, / When new Towers rise, and old demolish’t are” (260).

These descriptions suggest the appearance of new stars in the heavens, such as the two stars that Kepler describes in his *De stella nova*. Donne alludes to these new phenomena in the final section of the poem. He claims that:

And all the world would be one dying Swan,
To sing her generall praise, and vanish than.
But as some Serpents poyson hurteth not,
Except it be from the liue Serpent shot,
So doth her vertue need her here, to fit
That unto vs; she working more then it.

In doing so, Donne suggests Kepler’s accounts of the new stars in the constellations of *Ophiuchus* (“The Serpent Bearer”) and *Cygnus* (“The Swan”), which appeared and then began to grow dim once more. These prodigies in the heavens that disrupted the form of the constellations connect the matter of the last two sections. While Donne’s depiction of the failure of colour in the fourth section of the poem focuses on the terrestrial to the exclusion of the celestial, his description of the faded colours of the world are closely related to astronomy when read in the context of the *De stella nova* and the final section on the “Weakenesse in the want of correspondence of heaven & earth” (lines 377-426). Donne argues that the stars and constellations no longer have any effect upon the earth:
What Artist now dares boast that he can bring
Heaven hither, or constellate any thing,
So as the influence of those starres may bee
Imprisoned in an Hearbe, or Charme, or Tree.
And doe by touch, all which those starres could doe?
The art is lost, and correspondence too. (391-6)

Donne's argument here is not simply a sign of the modern separation of astronomy and astrology. Indeed, as Sir Henry Wotton's account, in his letter to the English court, of the implications for judicial astrology of Galileo's *Siderius Nuncius* suggests, astrology was still generally deemed important by most early modern astronomers, including Kepler and Galileo. Rather, Donne’s critique in this section derives from the arguments in Kepler’s *De stella nova*.

As Sheila Rabin suggests, Kepler's argument is directed toward Pico della Mirandola's rejection of astrology. Although Kepler attacks the use of constellations for astrological work because the appearance of new stars puts these shapes into doubt, he does not simply reject of the influence of the stars. Rather, he recasts his version of their effects in terms of the effects of colours, suggesting that they provide the medium of influence by which the celestial influences the earth (*De stella nova* 31-2). By doing so, Kepler is able to retain astrological influence without recourse to occult properties, which influence at a distance without visible cause. In the final section of the poem, Donne uses

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Kepler’s arguments as resources for his depiction of the dying world. He suggests that the inability of the stars to affect the world directly impedes the ability of Elizabeth Drury’s soul to influence the world beneficially:

If this commerce twixt heaven and earth were not
Embarr’d, and all this trafique quite forgot,
Shee, for whose losse we have lamented thus,
Would worke more fully and pow’rfully on us. (399-402)

Instead, she is restricted to the medium of light, by which,

She from whose influence all Impresion came,
But by receivers impotencies, lame,
Who, though she could not transubstantiate
All states to gold, yet guilded euery state. (415-8)

This image of the effects of Elizabeth Drury, by which “some Princes have some temperance” (419) and “[s]ome Nunneries, some grains of chastity” (424), provides a deliberate contrast with the faded world depicted in the previous section, where “color is decayd: summers robe growes / Duskie, and like an oft dyed garment showes” (356). By doing so, Donne draws attention once more to the optical, and, in particular, to Elizabeth Drury’s ability to help us to see the world more clearly.

“All the world growes transparent”: Reflection and Super-Imposition in the

*Anniversaries and Funeral Elegies*

Throughout “An Anatomy of the World,” the heavens offer a mirror of the state of the world and a proleptic contrast to the description of the soul’s flight to Heaven that
appears in “The Progress of the Soul.” While the tropes of *mundus senescens* and of anatomy structure the reading of the dying world in the *First Anniversary*, the ghostly presence of Elizabeth Drury directs the reader’s attention to the signs of the divine in the world. In this context, the catastrophic changes discovered in the heavens by astronomers are understood as reflection of faults in the earth. Like the famous image of the ‘dark mirror’ that St. Paul discusses in 1 Corinthians 13:12, the imperfect image seen on earth implies the perfect one to be seen in heaven: “For now we see through a glass, darkly, but then, face to face; now I know in part, but then I shall know, even as also I am known.”

The darkness of the mirror is a metaphor for limited access to the light of the divine. In a sermon on that text, preached at St. Paul’s on Easter day, 1628, Donne parses St. Paul’s metaphor during the first part of his argument. He says,

> And so, for such a sight of God, as we take the Apostle to intend here, which is, to see that there is a God, The frame of Nature, the whole World is our Theatre, the book of Creatures is our Medium, our glasse, and natural reason is light enough [...] and yet, whilst we are in this World, it is but *In aenigmate*, in an obscure Riddle, a representation, *darkly*, and *in part*, as we translate it. (8.9, 225)

Donne’s *divisio* distinguishes between the theatre of things to be seen, the medium through which they are seen, and the light by which they are seen. In doing so, he directs attention to the complex organization of mediated perception, casting his metaphor in terms of perspectivalist optics, which similarly distinguishes between object, medium, and light. However, Donne also suggests the part that “natural reason” plays in reading the world via the inspection of the “book of Creatures.” As he puts it in another sermon, “As we cannot see the Essence of God, but we must see him in his glasses, in his Images, in
his Creatures” (*Sermons* 5.7, 161). If these aspects of seeing allow some sort of vision in the medium of the “glasse,” that vision is only partial—“an obscure Riddle, a representation, *darkly*, and *in part*”—and it is that restriction, the issue of what it means to see in a representation, darkly, that provides the structure for Donne’s argument in his Easter day sermon.\(^{270}\) He uses this allegorical vision implicitly to contrast the obscure vision available on Good Friday—when heaven is seen “darkly, and in part,” through the glass provided by the passion of Christ—with the transparency of the transcendent vision of the Resurrection, when we will see “face to face.” He thus figures the dark mirror of St. Paul’s metaphor as the source of occlusion, in contrast with the transparent vision available in heaven.

In the sermon, Donne goes on to ask “But how doe we see in a glasse?” and answers, “Truly, that is not easily determined. The old Writers in the Optiques said, That when we see a thing in a glasse, we see not the thing it selfe, but a representation onely; All the later men say, we doe see the thing it selfe, but not by direct, but by reflected beames.” Donne alludes to the distinction between extromission and intromission, and in particular between constructions of reflection which transform it into a representation on the surface of the mirror (extromission) and those for whom it is a reflection of light (intromission). But his continuation, “It is a uselesse labour for the present, to reconcile them. This may well consist with both, That as that which we see in a glasse, assures us, that such a thing there is, (for we cannot see a dreame in a glasse, nor a fancy, nor a Chimera) so this sight of God, which our Apostle sayes we have *in a glasse,*

is enough to assure us, that a God there is” (8.9, 227-8), unmakes that distinction by displacing it as a technicality that does not impede his point. If both sorts of reflection confirm the existence of God, the need to reconcile the two positions can be avoided. In doing so, he refocuses the listeners’ attention on the idea that images seen “in a glasse” cannot be chimerical, because they are the image of something, even if the form seen is mistaken. Donne deliberately evades the technical problems of optics in order to suggest how sight mediated by different ‘glasses’, while only partial, still enables perception. By doing so, he draws attention to the issue of what it means to see in a representation, darkly, and in part. Because knowledge of heaven is available only indirectly, via “frame of Nature […] the book of Creatures,” the practice of natural philosophy is a vital route to such an understanding. The metaphor of the dark mirror, particularly in Donne’s optically attuned version, stands for the difficulty of coordinating natural and religious knowledge.

Donne’s understanding of this relationship itself depends upon knowledge of natural and artificial particulars for its precise form. The Pauline metaphor of the dark mirror posed important interpretive difficulties in the early seventeenth century because of the changing forms of the mirror. While in antiquity, mirrors were constructed primarily of polished metal and stone, the introduction of glass and crystal mirrors provided the possibility of alternative interpretations. Mirrors were both relatively common and highly desirable household objects during the early modern period. The

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most common mirrors were made from polished metals, usually steel. These comparatively cheap objects would have been available to a broad section of society, as would the most common glass mirrors. These small convex mirrors were made of green forest glass, backed originally by lead, which also provided a darkened distorted image. By contrast, larger flat mirrors made from natural crystal or glass, foiled with a mixture of tin and quicksilver, were expensive luxury items. The size of crystal mirrors was restricted by the size of the stone available and glass mirrors by the glassmaker’s ability to produce clear glass that was both flat and large, and to “foil” the back. As a result, the largest and clearest mirrors were rare and expensive items, and an important status symbol. Improvements in glass-making processes during the sixteenth century made available new mirrors in cristallo, a manufactured glass as clear and large as crystal. The very wealthy began to decorate rooms with large mirrors made by this new process in a deliberate attempt to create light and brightness, to give an illusion of increased space, and as a self-conscious display of wealth.

When, in the preface to Metempsychosis, Donne speaks of “a minde so plaine, and flat, and through-light as mine,” this description of ideal transparency suggests the contrast between the glass in these technically difficult mirrors and the reflective properties of polished stones, such as jet, and metals, such as steel, copper, and silver. In these surfaces, the world was reflected, darkened by the material of the mirror itself. By comparison, while glass and crystal produce surface reflections, mirrors made with these substances depended upon the reflective qualities of the materials with which they

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273 Donne’s metaphor is at once symbolic, pictoral and optical: “Others at the Porches and Entries to their buildings set their Armes; I, my picture; if any colours can deliver a minde so plaine, and flat, and through-light as mine.”
were backed. The transparent glass or crystal surface of these mirrors protects the reflective foil backing, or ‘tain,’ from tarnishing while allowing the passage of light. It is the clarity, the ‘plainness,’ of the transparent glass, which produces clear images, where poor quality coloured or curved glass produced a dark mirror.

In a sermon given at Denmark House on the 26th of April, 1625, in the presence of the body of the dead King James, Donne takes up the process of making mirrors and the trope of the dark mirror, combing them in order to explain the Incarnation. He figures the body of the dead, laid out for the mourners, as providing an enhancement to vision: “that which we are to look upon, is especially our selves, but it is our selves, enlarg’d and extended into the next world; for till we see, what we shall be then, we are but short sighted” (6.14, 285). Where the darkness of reflection in the Pauline dark mirror was a metaphor for limited access to the light of the divine, Donne’s argument in the sermon for King James uses the metaphor of the dark mirror to consider how embodiment provides an opportunity for reflection:

But then the hand of God, hath not set up, but laid down another Glasse, wherein thou maist see thy self; a glasse that reflects thy self, and nothing but thy self. Christ, who was the other glasse, is like thee in every thing, but not absolutely, for sin is excepted; but in this glasse presented now (The Body of our Royall, but dead Master and Soveraigne) we cannot, we doe not except sinne. Not onely the greatest man is subject to naturall infirmities, (Christ himself was so) but the holiest man is subject to Originall and Actuall sinne, as thou art, and so a fit glasse for thee, to see thyself in. (6.14, 289)
Donne adjures the congregation to consider the example of the dead king in relation to themselves. Now that he is no longer “set up” upon the throne, but “laid down” upon a bier, his human frailties, his sins, provide a mirror for the contemplation of the self. The usefulness of this mirror, moreover, depends precisely upon its construction:

*Jeat* showes a man his face, as well as *Crystall;* nay, a Crystall glasse will not show a man his face, except it be steeled, except it be darkned on the backside: Christ as he was a pure *Crystall* glasse, as he was *God,* had not been a glasse for us, to have seen ourselves in, except he had been *steeled, darkened with our humane nature;*

Neither was he ever so throughly darkened, as that he could present us wholly to our selves, because he had no *sinne,* without seeing of which we do not see our selves. Those therefore that are like thee in all things, subject to humane *infirmities,* subject to *sinnes,* and yet are translated, and translated by *Death,* to everlasting *Joy,* and *Glory,* are nearest and clearest glasses for thee, to see thy self in. (6.14, 289)

Vision of the divine depends upon the darkness of the mirror produced by the process of foiling. It enables a transformation of the transparent crystal of God, by being “*darkened with our humane nature,*” into a mirror that allows some perception of heaven. Moreover, in this formulation, Donne suggests that the perception of sins in the self is dependent upon a dark glass, one that is “subject to *infirmities,* subject to *sinnes.*” This process of self-examination demands an act of comparison. As Gregory the Great puts it, quoting Augustine, “Holy scripture presents a kind of mirror to the eyes of the mind, that our inner face may be seen in it. There truly we learn our own ugliness, there our own
beauty.” Ideally, one would be able to compare oneself to Christ, but even with the darkening of his nature because of the Incarnation, his suitability as a mirror for the self is limited by his lack of sin, which the body of King James provides.

The composite form of the glass mirror offers a metaphor for the complex relationship between body and soul. This depiction of the body as medium of vision—one which enables sight of both the earthly and the heavenly—suggests how deeply imbricated the corporeal is in the issues of representation and perception that run throughout the *Anniversaries* and Donne’s other funerary poems. The value of the complicating presence of the dead body as a means by which vision is clarified is most apparent in the *Obsequies for Lord Harrington* (1614). There, Donne portrays the virtues of the subject—the brother to Lucy, Countess of Bedford—by presenting a specular scene in which he comes to know himself and his place within the structure of things through an act of contemplative identification. The memory of Harington’s deeds provide a lens for this vision:

> Thou at this Midnight seest mee, and as soone
> As that Sunne rises to mee, midnight’s noone,
> All the world growes transparent, and I see
> Through all, both Church and State, in seeing thee;
> And I discerne by favour of this light,
> My selfe, the hardest object of the sight.
> God is the glasse: As thou when thou dost see
> Him who sees all, seest all concerning thee:

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So, yet unglorified, I comprehend
All, in these mirrours of thy way and end.
Though God bee truly our Glasse through which we see
All, since the being of all things is hee:
Yet are the Trunks which doe to vs deriue
Things in proportion fitt by perspective,
Deeds of good men.  

(25-38)

While God provides the glass in which heavenly knowledge is available, some part of that knowledge is available on earth through his images—good men. As Marjorie Nicolson points out, ‘trunke’ here is a synonym for telescope. The phrase also suggests the bodily nature of the medium read to discover moral truths, here the body of Lord Harrington. This device that orders moral knowledge “in proportion fitt by perspective” stands in contrast to the restricted knowledge available via the eyes’ lattices, transformed into the perspective grids of an artist, in which Harrington’s physical trunk is set. The incarnation of transcendent values in the “deeds of good men” provides the historical proximity of the divine that is necessary for knowing oneself as an image of ideal forms. It is precisely the absence of such ideal specularity, such sacramental continuity between the deeds of noble men and transcendent forms, that Donne elegizes in the First Anniversary when the “best, and first originall / Of all faire copies” (lines 227-8) of virtue, embodied in the person of Elizabeth Drury, has radically separated from its historical incarnations.

Such a scheme of reading, which superimposes an image of the world upon one of heaven, is peculiarly appropriate to the Anniversaries. Although the poems were composed and are read as sequential, the activities of both poems begin at the same
moment. If we read the *Anniversaries* as simultaneous rather than sequential, examining the disjointed results of the *Anatomy* in the light of the knitting together of the *Progress*, we can see microcosm and macrocosm superimposed, one atop the other. Like the glass in the “Valediction: of my Name in the Window,” which layers image upon image by being simultaneously transparent and reflective, or like the image of Elizabeth Drury as “on both sides written scrolls,” the poems present new meanings when read together. At the beginning of the section on proportion, for instance, Donne describes Elizabeth Drury's relation to symmetry in terms analogous to one theory of vision:

Shee by whose lines proportion should bee
Examin'd, measure of all Symmetree,
Whom had that Ancient seen, who thought soules made
Of Harmony, he would at next have said
That Harmony was shee, and thence infer,
That soules were but Resultances from her,
And did from her into our bodies go,
As to our eyes, the formes from obiects flow. (305-16)

Edward Tayler argues that this suggests a version of seeing dependent upon perspectivist intromission—as opposed to extromission—and thus places the theory of seeing deployed in the *Anniversaries* in opposition to that depicted in “The Ecstasy,” where the extromitted rays of the two lovers intertwine with each other in the process of mutual looking. Donne's description of the visual process in the *Anatomy* (“Forms from bodies flow”) fits the skeptical version of intromission, as well as perspectivalist and Aristotelian accounts. For the skeptics, vision relied on the conception of *eidola* thrown off by the
physical bodies, as Lucretius puts it, like cicadas or snakes shucking off their skins.\textsuperscript{275}

These images direct our attention to Donne’s metaphors of order and disorder in the heavens.

As I mentioned at the beginning of this chapter, while the trope of anatomy acts as an organizing principle in the \textit{First Anniversary}, anatomized bodies themselves play only a minor role in the same poem. The sorts of bodies that do appear are not physical bodies but bodily metaphors, as when the seemingly errant motion of the sun is transformed into the malefic image of a serpent:

\begin{quote}
...nor can the Sunne
Perfit a Circle, or maintaine his way
One inche direct; but where he rose to day
He comes no more, but with a cousening line,
Steales by that point, and so is Serpentine. (268-72)
\end{quote}

Ann Hurley points out that this “cousening line” is a technical term from artistic theory, the \textit{linea serpentina}, which produces the deceiving appearance of roundness, of three-dimensionality, by shading.\textsuperscript{276} The transformation of the sun’s path into a serpentine body, thus works simultaneously as a description of the sorts off apparent embodiment produced by painterly technique, as an image of the anxieties created by a seemingly shifting sky, and as a sign of the eccentric movement of the heavens.

\textsuperscript{275} Lucretius notes, “since amongst visible things many throw off bodies, sometimes loosely diffused abroad, as wood throws off smoke and fire heat, sometimes more close-knit and condensed, as often when cicadas drop their neat coats in summer, and when calves throw off the caul from their outermost surface, and also when the slippery serpent casts off his vesture amongst the thorns [...]: since these things happen, a thin image must also be thrown off from things, from the outermost surface of things” \textit{(De rerum natura}, IV, 54–64).

Physical bodies, however, reappear in the *Second Anniversary* as the object of representation, in the form of the headless man (9-16), the strung together planets (206-13) and interior of the body (269-78). Both the yearning of the body for wholeness and bodies as a metaphor for connection are used as tropes for the process of concatenation that the soul’s progress enacts as it leaves behind the body and flies towards heaven. The soul’s threading of the planets, in particular, offers a contrast to the image of the malefic serpent, in which the microcosmic body becomes the structuring principle for the macrocosm:

But ere shee can consider how shee went,
At once is at, and through the Firmament.
And as these stars were but so many beades
Strunge on one string, speed undistinguish’d leades
Her through those sphæares, as through the beades, a string,
Whose quicke succession makes it still one thing:
As doth the Pith, which least our Bodies slacke,
Strings fast the little bones of necke, and backe;
So doth death string Heauen and earth. (206-13)

The movement of the soul through the spheres, which become joined as if threaded by the pith that draws the spine together, enacts a reversal and renewal of the decaying and distorted serpentine motion of the sun. The resemblance between the two depends on the similarity between the sinuous form of the snake and the structuring, articulating shape of the backbone. (Figures 12 and 13) Read superimposed upon each other, the two passages provide contrasting images of the heavens. In the first, the un-dissected serpent,
composed entirely of strung-together vertebrae, draws a ‘cousening’ line across the heavens. The relationship between the outward surface of that movement across the sky and the underlying structure of the universe is unclear. By contrast, Donne’s image of the soul’s journey connecting the planets in the “Progress,” when transformed into the “little bones of necke, and back” joined by the ‘pith’ or spinal cord, offers an interior view of a universe connected together in the same way that “death string[s] Heauen and earth.”

The world shown in the Progress is one that, if not immediately whole, is gaining wholeness as the various parts of the body sloughed off by the soul are joined together by the act of successive vision and revision. While individual parts of the vision may be disjointed, the movement of the second poem from the accidental to the essential, from grief to joy, works to tie the individual parts together. Without the Anatomy, however, the Progress cannot produce “a golden world,” though it can attempt to imagine and represent the dis-embodied vision of the soul. It is only when the body of the world is read and seen, not just in the context of the next world, but simultaneously with it—when the multiplicity of parts produced by anatomy is reconstituted by the act of seeing from the watchtower—that wholeness is achieved.
Figure 3.1: Corporis humani ossa posteriori facie proposita. Andreas Vesalius, *De fabrica*, 1543.
Figure 3.13: Detail from surface anatomy of female figure. Johann Remmelin, *Catoprtum microcosmicum* (1639).
Chapter Four: “By circuit and collections to discerne”:

The Trajectory of Progress and the Commemoration of Elizabeth Drury

Like the “Anatomy of the World,” the “Progress of the Soul” begins with images of disjunction, of the separation of body and soul. However, where the First Anniversary leaves the soul to return to her “standing house” in heaven, like a monarch returning from a progress, and instead focuses on the dissection of the dead body of the world, the Second Anniversary reenacts the same moment through a series of images of separation in which the body is about to be left behind by the soul:

But as a ship which had strooke saile, doth runne
By force of that force which before, it wonne:
Or as sometimes in a beheaded man,
Though at those two Red seas, which freely ran,
One from the Trunke, another from the Head,
His soule be sail’d, to her eternall bed,
His eyes will twinckle, and his tongue will roll,
As though he beckned, and cal’d back his soule,
He graspes his hands, and he pulls up his feet,
And seems to reach, and to step forth to meet
His soule; when all these motions which we saw,
Are but as Ice, which crackles at a thaw:
Or as a lute, which in moist weather, rings
Her knell alone, by cracking of her strings.
So strugles this dead world, now shee is gone;
For there is motion in corruption. (lines 3-22)

In this passage Donne is explicitly describing the continued motion of the world after its animating force—the *anima mundi*, the soul of Elizabeth Drury—has left it. First, the boat, having struck its sail, approaches harbour under its remaining momentum, its passengers readying themselves to disembark; second, the headless body seems to reach after the departing soul in a series of convulsive movements; finally, the lute cracking in the winter frost can only utter discordantly in the absence of the musician’s hand. The second metaphor of the dying body suggests the problematic slipperiness of this elongated moment as it reaches out and attempts to grasp what it has lost. The parting here is not only the reluctant separation of soul from body, but a transition from one journey to another: the parted Red Seas springing from the dead man’s neck, with the intimation of a desperate flight into new lands (an image which reminds the reader of the voice of Moses speaking of the lasting fame of Elizabeth Drury in the closing section of the *First Anniversary*); the echo of the previous metaphor of the ship (‘his soule be sail’d’); the twinkling eyes and desperately grasping hands; all suggest the flesh reaching after the intangible soul as it sets forth on a new stage of its journey.

These images combine an insistent desire to go further with the fading momentum of things that are reaching their end. Implicitly, they point to the problem signaled in the title of the poem: how a soul might progress, both on earth and in heaven. Where, in the “Anatomy,” the process of examination multiplies the number of natural particulars, in the “Progress of the Soul,” the movement of the poem knits together the scattered parts, moving from a depiction of the outward, accidental forms of the world as
seen under the influence of grief, towards a discussion of inward, essential joys. In doing so, Donne raises the question of the relationship between heavenly perfection and earthly perfectibility, as in so many of his consolatory poems and funeral sermons. This journey, the progress to heaven, and its relationship to the idea of progress as both heavenly and worldly improvement forms the subject of this final chapter.

In the previous chapter, I examined Donne’s “Anatomy of the World” in the context of contemporary optical theory, anatomical method, and astronomical observation. In this chapter, I examine the “Progress of the Soul” with a similar emphasis on methodical activity. Here, however, I am less interested in the results of examination than in the process by which they are obtained—and I want to suggest that this orientation is a central topic of The Second Anniversary. To this end, I consider the relationship between the progress of knowledge and ceremonial progresses, processes, and triumphs in his commemorative poems. I suggest the “Progress of the Soul”, like the Epicedes and Obsequies, functions a process of exemplary display that both exalts individuals and promotes the cohesion of the community. These works memorialize the dead in ways intended to be useful to the living, providing not merely consolation, but also an example for the improvement of those who remember them. I consider Donne’s images of transformed dead bodies, reading the exaltation of Elizabeth Drury in the context of a troubling image of failed improvement, the “child embalmed to make mummy,” from the funeral sermon for Sir William Cokayne. I compare these images of stagnant knowledge, resulting from the labyrinthine circuitous knowledge available on earth, with the unimpeded sorts of knowing available in heaven. I tie these ideas to the
use of travel narratives as means of ordering natural knowledge, and finally, I consider the trajectory of knowledge in both the “Progress” and the “Elegy on Prince Henry.”

The History of Progress and the “The Child Made Mummy”: Knowledge and Funerary Commemoration

The concept of the historical progress of mankind cannot be sundered from the concept of its progression through a homogeneous, empty time. A critique of the concept of such progression must be the basis of any criticism of the concept of progress itself. (Walter Benjamin, “Theses on the Philosophy of History”)

Progress as we understand it, that defining aspect of teleological modernity, was in the process of formation during Donne’s age. Pace Benjamin, in the early modern period, the space of progress was neither homogeneous nor empty; rather, it was insistently territorial and closely linked to the transfer of authority between generations. I want to begin this chapter by pointing to the connection between two different meanings of “progress”: progress as forward productive movement, and progress as a royal procession, an itinerary that bound the kingdom together (OED n. I, II). As the OED points out, these connected but different meanings had coexisted in English since the fifteenth century. Only during the seventeenth century does progress become used to indicate the improvement of knowledge, in which facts and technologies are brought together to contribute to the betterment of the whole.
Progress as procession, as royal progress, dominates Donne’s usage. Moreover, when he does use the term in this sense, it is almost always connected with a female figure, suggesting a close connection between his use of this trope and Queen Elizabeth. The Elizabethan royal progresses had a central political purpose, offering a stage for acts of dominance, display and consultation that shaped the relationship between the Queen and her subjects. As Mary Cole Hill suggests, Queen Elizabeth insisted on the importance of royal progresses despite the complications they posed for the business of governing and the cost of the itinerant court to the exchequer. In part, the progress checked the power of the magnates by imposing the costs of maintaining the royal household upon the estates visited. More importantly, the progress, like the other analogous ceremonial and processional forms—triumphs, royal entries, and funeral processions—was fundamentally performative. As Richard Helgerson argues, it enabled the monarch to enact an idealized relationship with his or her subjects. It also gave those subjects the opportunity to be heard by their sovereign, and, simultaneously, to perform the sorts of relationship they desired with the crown. In doing so, it also functioned as a supplement to the judicial circuits that held the country’s legal system together.

Both this sort of progress and the more familiar modern meaning have their common Latin root in the passive past participle of the deponent verb *progreddior* (“to advance or go forward”) and its derivative *progressus*. The root meaning also corresponds to the popular usage of the word: an improvement of knowledge, technology or society.

(OED n. 2). While, in the early modern period, the idea that a continuous improvement was possible, let alone the natural order of things—as in the Whig version of history—had yet to gain purchase upon the collective imagination, the idea of progress was in the process of emerging. In the Latin Conclave Ignatii, for instance, Donne uses the term progressus to describe Galileo’s improvements to the telescope, “novis (cum iam in arte sua maiores progressus fecisse credendus sit) confectis” (80), translating the clause in Ignatius, his Conclave as “when now being growne to more perfection in his Art, he shall have made new Glasses.” Donne’s account of the telescope echoes Wotton’s description of Galileo’s device: “an optical instrument...invented first in Flanders, and bettered by himself” (Smith 1:486). Both descriptions emphasize the improvements that Galileo made to the telescope, and the telescope, in turn, offered a means by which knowledge itself could be bettered.

New inventions, like the telescope, and the new knowledge that seemed to follow inevitably upon their discovery were central to changing attitudes to knowledge-making during the seventeenth-century Scientific Revolution. The process of improving knowledge was reconceived as forward- rather than backward-looking. Instead of seeking the restoration of the lost knowledge of the ancients, natural philosophers, astronomers and physicians sought a new and improved knowledge of nature that did not merely add to ancient knowledge, but superseded previous learning. Central to popularizing this new focus in England was the influence of Francis Bacon’s Advancement of Learning (1605) and the later writings. The retrospective importance of Bacon’s contribution can be seen

280 As I noted in Chapter One, Galileo, in his turn, saw one of the primary uses of this device, and the discoveries it enabled, as a means of obtaining patronage by exalting the Medici family. See Biagioli, Galileo, Courtier (1993).
in his posthumous enshrinement, alongside its royal patron Charles II, as one of the two founders of the Royal Society. While Bacon titled his project the *Magna Instaratio*, or “great instauration” of knowledge, his scheme was essentially progressive. This plan gestured back to an ideal knowledge that was essentially pre-lapsarian. Any restoration of fallen knowledge would be the result of emending human knowledge by reference to the book of nature. His attitude to the knowledge gathered in antiquity was, by contrast, sharply critical. He saw classical sources as useful repositories of natural particulars—what we would now term facts—but argued that the knowledge in these texts must be evaluated in order to separate truth from falsehood.  

Bacon’s argument for the improvement of knowledge in the *Advancement* is explicitly framed as a project undertaken on behalf of the British nation, and the idea of inheritance is central to this context. In his essay, “Of Marriage and Single Life,” Bacon observes the complicated relationship between family ties and public service:

He that hath wife and children hath given hostages to fortune; for they are impediments to great enterprises, either of virtue or mischief. Certainly the best works, and of greatest merit for the public, have proceeded from unmarried or childless men, which both in affection and means have married and endowed the public. Yet it were great reason that those that have children should have greatest care of future times, unto which they know they must transmit their dearest pledges.  

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281 See Bacon’s preparatory *Parasceve* and my discussion of his collection of natural particulars, the *Sylva Sylvarum*, below. Compare Donne’s process of cribration, or sieving, in Pender, “Somiotics” (2000) 34-85.

Although he first claims that “best works” have been carried out by “unmarried or childless men,” Bacon figures their labour as the result of marriage to the public as a whole, rather than to one individual. But, at the same time, a similar issue of inheritance arises for those servants of the state with children, who owe a duty to “their dearest pledges.”

Bacon makes this relationship between inheritance and public service clear in the conclusion to Book One of the *Advancement of Learning*, where he puts forward an argument about inheritance:

Lastly, leaving the vulgar arguments, [...] let us conclude with the dignity and excellency of knowledge and learning in that whereunto man’s nature doth most aspire; which is immortality or continuance; for to this tendeth generation, and raising of houses and families; to this tend buildings, foundations, and monuments; to this tendeth the desire of memory, fame, and celebration; and in effect, the strength of all other human desires. We see then how far the monuments of wit and learning are more durable than the monuments of power or of the hands. [...] Images of men’s wits and knowledges remain in books, exempted from the wrong of time and capable of perpetual renovation. Neither are they fitly to be called images, because they generate still, and cast their seeds in the minds of others, provoking and causing infinite actions and opinions in succeeding ages.  

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283 Bacon, *Major Works*, ed. Vickers (1996) 167-8. Also see Bacon’s account of the importance of royal foundations for the improvement of knowledge in the introduction to Book Two of the *Advancement*.  

Bacon contrasts knowledge as a method of improving and exalting the self—by which “man exceleth man” and “man ascendeth to the heavens”—with the improvement of knowledge as an inheritance to be passed to future heirs. Scientific work, in this context, can be seen as building up the stock of knowledge for the future, a point reinforced by Bacon’s conclusion: “so will that also continue whereupon learning hath ever relied, and which faileth not: ’Justificata est sapientia a filiis suis’” (Bacon 168).

In both meanings, progress is a process of improvement—of knowledge or status. Where the “Anatomy” divided the world into parts in order to examine the causes of its demise, the “Progress” knits the fragmented particulars of the world together. The divisions in the poem are not anatomical sections but stages on a journey, areas that are not only different, but also increasingly expansive. Elizabeth Drury provides a cohesive force that holds together not merely the nation but the whole world. She is the one, “that should all parts to reunion bow, / She that had all Magnetique force alone, / To draw, and fasten sundred parts in one” (“Anatomy” 219-21). But if she represents the children whose birth justifies the pursuit of wisdom, what does it mean that she is dead and childless?

Improving the Dead: Refinement, Embalming, and the Preservation of Knowledge

These mutually compatible ideas of progress, in which the wisdom of current policy will be vindicated by the lives of the descendents of these rulers and their subjects,

284 Compare Sarah Powrie, “The Celestial Progress of a Deathless Soul” (2007). Powrie’s overall reading of the Second Anniversarie is astute, but she follows Catherine Gimelli Martin, attempting to discover a correspondence between the stages of the soul’s journey through the heavens in terms of the order of the planets “she” passes in the stages of the poem as parallel to that in Dante’s Paradiso.
poses a problem in the funerary context of the *Anniversaries*. Elizabeth Drury’s death as a young girl and her status as the sole child of Sir Robert and Anne Drury meant that any such hopes had already failed. In this context, as in his other obsequies and elegies, Donne focuses instead on the “Progress” of Elizabeth Drury’s soul as a means of fulfilling the potential she represented. However, his consolatory strategy of warning his readers and listeners to abandon concern for things of the flesh and instead direct their attention to heaven depends precisely on a critique of earthly progress and the futility of knowledge on earth.

Bacon’s portrayal of knowledge as an inheritance that may be securely passed down through time, able to “generate still, and cast their seeds in the minds of others,” suggests the underlying anxieties in Donne’s critique of knowledge from the funeral sermon for Sir William Cokayne (1626). I have already discussed Donne’s metaphor of “old mens spectacles” in this sermon in two previous chapters of this dissertation. Now I want to consider the rest of the same passage. Donne goes on to note that,

Almost all knowledge is rather like a child that is embalmed to make Mummy, then that is nursed to make a Man; rather conserved in the stature of the first age, then grown to be greater; And if there be any addition to knowledge, it is rather a new knowledge, then a greater knowledge; rather a singularity in a desire for proposing something that was not knowne at all before, then an emproving, an advancing, a multiplying of former inceptions; and by that meanes, no knowlege comes to be perfect. (7.10, 260)

In this passage, Donne presents knowledge as naturally linked to growth, and stifled by attempts to preserve it. By figuring knowledge as a “child embalmed to make mummy,”
Donne produces an ambiguous image of arrested growth and inappropriate preservation of knowledge—transformed from a living, growing child into a substance purveyed by apothecaries for consumption.

*Mummia*, the preserved flesh of mummified bodies, was used by apothecaries in medicinal recipes, because the preservative qualities of the balm used in classical embalming techniques was believed to preserve the health of the living as it did that of the dead.\(^{285}\) In a letter, Donne provides a Galenic explanation for the remedy: “Physitians say, that when our naturall inborn preservative is corrupted or wasted, and must be restored by a like extracted from other bodies; the chief care is that the Mummy have in it no excelling quality, but an equally digested temper” (*Letters* 98). By contrast, in his book of secrets, *The Jewel House of Art and Nature*, Sir Hugh Platt claims:

> for further proof that there is some salt in every thing, we read that the AEgyptians were wont to use Niter, and other aromatical bodies, about the dead bodies of their Kings and Princes, which we do call embalming; which Niter is a preserving salt that defendeth from putrefaction; and their flesh so embalmed, is called *Mumia*, which the AEgyptians do find to be very medicinable, and for my part I think the same more wholesome then potable gold. There be some in our time that would fain imitate that ancient manner of embalming, and seek to make a kind of *Mumia* of their bodies who have suffered death for some capital offence;

but they fail herein, and their Mumia doth soon corrupt ande putrifie, for want of such excellent aromatical drugs as those ancient AEgyptians used.\textsuperscript{286}

Although Platt’s account of mummification is Paracelsian in form, emphasizing that this “AEgyptian” method of preservation depends on the salt-like properties of “Niter,” it is otherwise conventional. Like many of the early modern writers, he suggests that the “medicinable” properties result from the digestion of Mumia, which is “more wholesome then potable gold.” As he points out, it was not unknown for ‘moderns’ to attempt to make mummies from the bodies of criminals; however, their attempts failed because they lacked the drugs and spices of the Egyptians. Mummification in this formulation is not merely an inappropriate and profane treatment of the dead body; it offers a hypertrophied version of preservation, in which the past is preserved but fundamentally transformed. The modern is made falsely old, falsely Egyptian—antique rather than ancient.\textsuperscript{287}

These connotations of mummification run against Donne’s use of the trope in the \textit{Anniversaries}. In the First \textit{Anniversary}, the dissection and examination of the world is prefaced by a discussion that portrays the poem as an act of reverence. Donne suggests that,

These Hymes may worke on future wit, and so

May great Grand-children on thy praises grow.


\textsuperscript{287} The speaker in \textit{Elegy IX}, “The Autumnal”: makes a similar distinction: “Name not these living death’s-heads unto me, / For these, not ancient, but antique be” (lines 43–6).
And so, though not Reuiue, embalme, and spice
The world, which else would putrify with vice.
For thus, Man may extend thy progeny,
Vntill man doe but vanish, and not die. (36-42)

This appropriate form of preservation, one which preserves for future generations, is focused on the virtue of Elizabeth Drury, whose soul is a principle of growth, one “in whom, to such maturity, / Vertue was grown, past grouth, that it must die” (lines 413-14). She provides a vitalizing force, “shee which did inanimate and fill / The world.”

One of the depictions of the loss resulting from her death compares her to a balm:

But though it be too late to succour thee,
Sicke world, yea dead, yea putrified, since shee
Thy’ntrinsicsque Balme, and thy preseruatiue,
Can neuer be renew’d, thou neuer liue,
I (since no man can make thee liue) will trie,
What we may gaine by thy Anatomy. (lines 57-60)

The loss of the preserving force of Elizabeth Drury’s presence raises the same worries as the unnatural preservation of knowledge which Donne describes in the funeral sermon.

It is only as an exemplary pattern—a principle of coherence—that knowledge can be saved from degeneration.

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289 This lack of intrinsic balm is compensated form—though only partially—by the remnants of her presence:

Since herbes and roots by dying, lose not all,
But they, yea Ashes too, are medicinall,
Death could not quench her vertue so, but that
It would be (if not follow’d) wondred at. (“Anatomy” 403-6)
If this pattern is not available on earth, Donne’s criticisms of the contemporary state of knowledge suggest that progress cannot be made along a single path, or via one individual: not by “a singularity in a desire for proposing something that was not knowne at all before,” but only via a ramifying, arborescent system of descent and growth—“an emproving, an advancing, a multiplying of former inceptions” can knowledge progress (7.10, 260). Knowledge in this form is progressive not only because it improves or advances, but because it multiplies, splitting into different branches of descent, as parents produce not one, but many children. It is in this idea of “an emproving, an advancing, a multiplying of former inceptions” that Donne locates the aim and the possible result of a productive natural philosophy, and to which he contrasts the barrenness of knowledge which aims to be merely new.

This failure is most vividly demonstrated in the “New philosophy” passage, where Donne depicts the cosmos broken apart:

‘Tis all in pieces, all cohaerence gone;

All iust supply, and all Relation:

Prince, Subject, Father, Sonne, are things forgot, (lines 212-14)

Although the passage begins with astronomical speculation, this description of the dissolution of the cosmos links physical “cohaerence” with the breakdown of social hierarchy: “Prince, Subject, Father, Sonne, are things forgot.”290 The move between the two depends upon the terms Donne uses. The loss of “cohaerence” produces a punning insistence on inheritance via the term “co-heir;” “iust supply” suggests the duties owed to

superiors, particularly the responsibility of feeding a visiting sovereign. Without these, all
“Relation” breaks down, resulting in anarchy in both the social and familial spheres.

Donne’s description of Elizabeth Drury’s “long-short progress” from earth to
heaven presents the opposite argument:

But ere shee can consider how shee went,
At once is at, and through the Firmament.
And as these stars were but so many beades
Strunge on one string, speed undistinguish’d leades
Her through those sphareas, as through the beades, a string,
Whose quicke succession makes it still one thing:
As doth the Pith, which least our Bodies slacke,
Strings fast the little bones of necke, and backe;
So doth death string Heauen and Earth. (lines 189-213)

In this passage, the image of the planets joined like vertebrae by the “pith” of the spinal
column functions as a concretized version of the balm—a sensible connection that vivifies
the whole. At the same time, its string provides a new order and organization for the
stations of the planets, just as a progress orders the places of the nation. This subtle link
between the frame of the body and the order of the heavens is expressed most succinctly
by the phrase “quicke succession” (210), which adds a social inflection to the discussion of
connection. The flight of soul passes through the spheres as quickly as an heir succeeds to
the throne. This speed is “undistinguish’d,” blurring the boundaries between different
objects, between the planets, even between life and death: it preserves a sort of liveliness,
a “quick[ness],” that holds these separate things “fast” together, just as the crown passes,
without a pause, from one monarch—“The Queen is dead”—to another—“Long live the King.”

“All Knowledge in Heaven is Experimental”: Circuitous Knowledge and the Experience of Heaven

In the context of these images of the passing of knowledge from one generation to another, let us return to Donne’s description of sensory perception that I discussed in the previous chapter. In moving from a discussion of vision and perspective, centered primarily on the *Anatomy of the World*, to a discussion that emphasizes hearing and narrative, centered on the *Progress of the Soul*, I do not wish to suggest that each of these poems relies on a single sense. *The Anniversaries* as a whole are profoundly interested in all of the five senses of the body and their relation to spiritual perception. However, it is the two formal methodical structures associated with *The Anniversaries*, the anatomy and the progress, which bring them into conjunction with particular senses, as I argued in the previous chapter. There, I was interested in the visual basis of knowledge, how classical and early modern theories of vision and the passions used sight as an organizing system for a static array of objects. Now, I want to consider the same passage and the surrounding material in terms of sequence and order, with the emphasis shifting from sight to hearing and the other senses:

In this low forme, poor soul what wilt thou doe?

When wilt thou shake of this Pedantry,

Of being taught by sense, and Fantasy?

Thou look’st through spectacles; small things seeme great,
Below; But vp vn to the watch-towre get,
And see all things despoyld of fallacies:
Thou shalt not peepe through lattices of eies,
Nor heare through Labyrinths of eares, nor learne
By circuit or collections to discerne.
In Heauen thou straight know'st all, concerning it,
And what concerns it not, shall straight forget. (296-300)
The passage, as I suggested, describes a series of divisions in the body of knowledge: first, the division between earthly, embodied knowledge and heavenly, unrestricted knowledge; second, the distinction between visual knowledge, which separates the world into fragmentary pieces, and aural knowledge by which these materials are gathered together. In moving from the analytic form of the “Anatomy,” with its distinct sections, to the narrative form of the “Progress,” Donne passes from acts of division and categorization—the practice of collecting—to connection and sequential narrative, the practice of the circuit. These forms of knowledge are placed in contrast to the immediacy—the straightness—of knowledge in heaven.

In a sermon preached on Easter Sunday in 1622, Donne considers the relationship between causal and ‘experimental’ knowledge in order to make a point about the experience of heaven:

For, this Eternity, this Everlastingnesse is not only incomprehensible to us in this life, but even in heaven we can never know it experimentally; and all knowledge in heaven is experimentall; As all knowledge in this world is causall, (we know a
thing, if we know the cause thereof) so the knowledge in heaven, is effectuall, experimentall, we know it, because we have found it to be so. (Sermons 4.2, 87)

This is a difficult passage to unpack because it further complicates an already contentious topic. ‘Experimentall' knowledge, here, refers not to the production of facts in the laboratory, but, more generally, to the experiential—the things we know “because we have found [them] to be so.” By categorizing knowledge in heaven as experimental Donne is creating a sense of the excessiveness, the immeasurability of the experience of God—even in heaven we can never know “Evertlastingnesse” experientially, even though all knowledge in heaven is “experimentall.” In doing so, however, his argument runs directly and deliberately counter to a debate about the difficulty or impossibility of deducing causes from particulars.

Donne’s formulation implicitly contrasts Aristotelian causal knowledge, with its distinction between accidents and essences, with a Baconian inductive knowledge built up from particulars. The equation of fallible “experimentall knowledge” with the perfection of Heaven simultaneously inverts and reinscribes the hierarchical relation between experiential and causal knowledge. The logical basis of causal knowledge is necessary on earth because causes cannot be composed from experiment.²⁹¹ By contrast, experience in heaven is not composed of discrete “particulars,” but, instead, is a continuous experience. In heaven, all knowledge can be experimental because causal knowledge can be composed from experience. As a result, causal knowledge itself becomes unnecessary—experience is all that is needed. The difference between earth and heaven, then, lies not in what sort of

²⁹¹ See, in particular, Peter Dear’s account of the history of experiment in the seventeenth century, *Discipline and Experience* (1995).
knowledge is appropriate to which realm, but rather in the disjunction between experience and causes on earth, and their conjunction in heaven.

This account of the difference between experience in heaven and on earth is elaborated in the rest of the sermon, which moves from discussing the knowledge of eternity to a consideration of the vanity of worldly knowledge. Donne asks,

How barren a thing is Arithmetique? (and yet Arithmetique will tell you, how many graines of sand, will fill this hollow Vault to the Firmament) How empty a thing is Rhetorique? (and yet Rhetorique will make absent and remote things present to your understanding) How weak a thing is Poetry? (and yet Poetry is a counterfeit Creation, and makes things that are not, as though they were) (4.2, 87)

Donne casts his argument here in terms that point not just towards heaven, but towards the heavens. He focuses attention both on the distance between earth and the firmament, and between the firmament and heaven itself. While, in the context of God’s creation, arithmetic, rhetoric, and poetry may be barren, empty, and weak, they provide the only methods of interrogating its immensity—arithmetic, the foundation of all astronomy, can measure the space between the lunar sphere and the firmament; rhetoric can make the “absent and remote” contents of the heavens present to an earthbound observer; and poetry can reenact the process of creation. These human arts aspire to God-like knowledge: arithmetic, rhetoric, and poetry offer fallible versions of divine omniscience, omnipresence, and omnipotence. The last of these, despite the emphasis on “Creation,” seems perhaps slightly out of place, evoking the ‘golden world’ that Sidney suggests poets
are able to create in his *Apology for Poesie* (106)—a representation more perfect than the world itself.

This critique of earthly knowledge is based upon a comparison between earthly and heavenly knowledge. The ease of inductive knowledge in heaven contrasts with its difficulty on earth, where the attempt to know could be seen as an act of hubris, as in the construction of the Tower of Babel, which Donne uses as one of his examples in the “Progress of the Soul”:

> They who did labour Babels tower t’errect,
> Might haue considerd, that for that effect,
> All this whole solide Earth could not allow
> Nor furnish forth Material enow;
> And that this Center, to raise such a place
> Was far to little, to haue beene the Base;
> No more affords this world, foundatione
> To erect true ioye, were all the meanes in one. (413-24)

Like the Tower of Babel, earthly knowledge-making seeks to build up from earthly materials, and thus suffers from the problem of unstable foundations. This allegorical depiction of the failure of human knowledge is in contrast to the alternative form of knowledge that, in the *Anniversaries*, has also been broken by the death of Elizabeth Drury. In the “Progress,” Elizabeth Drury is described as a part of what Arthur Lovejoy called the great chain of being:

> Shee who was such a Chaine, as Fate emploies
> To bring mankind, all Fortunes it enioyes,
So fast, so euen wrought, as one would thinke,

No accident, could threaten any linke. (lines 143-6)

The emphasis in both these images is on accidents, as Donne puts it in the second passage, and the forms that can be built out of those individual pieces joined together, allowing one to reach towards heaven. But this process of linking so that one might progress from one to the other is vexatious when the methods available are only the fallible processes of circuit and collection.

Implicit in the progress as a circuit is a conception of vision that is sequential, that ranges over objects, seeing them from different directions; and also as a process of listening to testimony, hearing knowledge retold in different ways. The ideal result of these fallible earthly methods of gathering knowledge can be seen in Donne’s “Satire Three,” where he describes the path to the vantage point atop the hill of truth:

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\text{doubt wisely, in a strange way}\\
\text{To stand enquiring right, is not to stray;}\\
\text{To sleepe, or runne wrong, is; on a huge hill,}\\
\text{Cragg'd, and steep, Truth stands, and he that will}\\
\text{Reach her, about must, and about must goe;}\\
\text{And what the hills suddennes resists, winne so. (lines 77-82)}
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Truth as a “huge hill” is inherently difficult, “Cragg'd, and steep.” The unobstructed “suddennes” of the insights available there contrasts with the circuitous approach necessary to attain its summit, which that very “suddennes resists.” The enjambment of the line “he that will / Reach her,” reinforces the image of “strange” circuitous ways that turn back on themselves as they circle the hill. This effect is magnified by the use of
Aposiopesis in the next phrase, which breaks off before completion, and then repeats itself: “about must, and about must goe,” as if mimicking the appearance of a traveler circling the hill as he climbs.²⁹² These images of repetition emphasize that the ascent of the hill of truth involves the process of seeing by circuits: not only are a series of objects observed, but those are seen again and again, from different angles until the viewer completes the act of viewing by returning to the beginning.²⁹³ Only when these separate views are combined can effective knowledge be produced.

The image of the “labyrinths of the ears” provides a complementary aural version of knowledge built up from repetition. In a verse letter “To R. W.,” Donne describes his experience of exile in terms of echoing sound:

And as Ayre doth fullfill the hollowness
Of rotten walls; so it myne emptines,
Where tost and mov’d it did beget this sound
Which as a lame Eccho of thyne doth rebound.²⁹⁴

Donne uses this metaphoric description of the ear as an echoing labyrinth in several places in his works, particularly in “Satire Two,” where the speaker describes the words, words, words, which would teare

The tender labyrinth of a soft maids ear,

More, more, then ten Scavlonians scolding, more

Then when winds in our ruin’d Abbeys rore. (lines 57-60)

²⁹⁴ “To Mr R. W.” (“Kindly I envy thy songs perfection”) lines 91-12.
The repetition in this passage (“words, words, words [...] More, more, [...] more”) suggests the susurration of sounds echoing back upon themselves. These baffling repetitions of speech amongst the ambages of the labyrinth are emphasized by the harsh consonants of “ten Scavlonians scolding” (59). The legal context of “Satire Two” links these echoing verses with circuit courts, their itinerant judges and the need for multiple testimonies.

These sorts of limited knowledge—the ability to “learne / By circuit or collections to discerne”—contrast with the immediacy and directness of vision from the watchtower, where “In Heauen thou straight know’st all, concerning it, / And what concerns it not, shall straight forget.” Early in the “Progress,” the Donne adjures his readers to,

Forget this rotten world; And vnto thee,
Let thine owne times as an old story be.
Be not concern’d: study not why, nor whan.
Do not so much, as not beleue a man.
For though to erre, be worst, to try truth forth,
Is far more busines, then this world is worth. (49-54)

In these passages, Donne distinguishes between two sorts of knowledge-making: the relatively simple process of discerning between objects, as via “circuit and collections,” and the more vexed problem of understanding the relation between particulars, how they concern each other. As he puts it more fully,

What hope have we to know our selves, when wee
Know not the least things which for our use bee?
We see in Authors, too stiffe to recant
A hundred controversies of an Ant.
And yet one watches, starves, freeses, and sweats
To know but Catechismes and Alphabets
Of unconcerning things, matters of fact;
How others on our stage their parts did Act;
What Cesar did, yea, and what Cicero said.
Why grasse is greene, or why our blood is red,
Are mysteries which none have reach’d unto. (279-89)

Donne offers a critique of the processes of observation by describing the experiential knowledge it produces as mere memorization. The diligent student of nature, confronted by the “hundred controversies” that pile up concerning something as insignificant as an ant, “watches, starves, freeses, and sweats” and discovers only disordered, unrelated knowledge. In these “Catechismes and Alphabets,” the order of the individual items is unrelated either to their importance or their meaning; it is a mere artifact of the organizational process, not a true reflection of how they concern each other.

Both “concern” and “discerne” are derivatives of the Latin verb *cernere*, “to separate,” and in their compound forms have implications of sifting and examining. They are not quite opposites however. Where *discernare*, means “to see, discern, distinguish or separate,” *concernare* means “to mix or mingle together” in the specific sense of things brought together by sifting with a sieve until other objects have been separated out. The compound double negative of the neologism “unconcerning” in Donne’s description of “unconcerning things, matters of fact,” marks out the vexed status of these things made
separate.\textsuperscript{295} Donne emphasizes the gap between this trivial knowledge and real substantial learning by noting that, “Why grasse is greene, or why our blood is red, / Are mysteries which none haue reach’d unto” (288-9).

In doing so, Donne also underscores the triviality and the lack of connection inherent in historical knowledge, “What Ceasar did, yea, and what Cicero said.” History’s status as knowledge is problematic because of its methodological inability to build up causal assertions from the unconnected facts it brings together. As Isidore of Seville explains, in his \textit{Etymologies}, historical writing involves the process by which past events are “sorted out” (\textit{dinoscuntur}) and placed in sequence. The idea of the series or sequence as a historical narrative of events derives metaphorically from the Latin \textit{seris}, a wreath or garland of flowers.\textsuperscript{296} This conception of history acknowledges the arbitrariness of narrative order and the underlying aesthetic basis upon which matching and contrasting events are juxtaposed with each other. Once again, sequence, the order of “Catechisms and Alphabets,” proves problematic.

Similar issues arise when the “Progress” turns from considering outward to inward movement. The narrator suggests the connection between circuitous, labyrinthine travel and knowledge, chiding the reader: “Thou art to narrow, wretch, to comprehend / Euen thy selfe: yea though thou wouldst but bend / To know thy body” (261-3). Donne


\textsuperscript{296} Isidore, \textit{Etymologies}, 67: “A history (\textit{historia}) is a narration of deeds accomplished; through it what occurred in the past is sorted out. […] A series (\textit{series}) is so called by an analogy with a garland (\textit{serta}) of flowers tied together one after the other.” (“De historia. 1. Historia est narratio rei gestae, per quam ea, quae in praeterio facta sunt, dinoscuntur. […] Series autem dicta per translationem a seris flororum invicem comprehensarum.”) See also the definition of a fable, 66, and of the kings of history, 67.
connects the narrowness of the reader’s understanding with his inability to “comprehend” his own body. In doing so, he connects the process of knowing with the area that circuits take in—a point reinforced by Donne’s use of the verb “bend” at the end of the enjambed line to describe the act of reflection, of turning attention back on oneself. This is knowledge that definitely concerns us, but “What hope,” he asks, “haue we to know our selves, when we / Know not the least things, which for our use be?” (279-80).

The poem also considers the lack of knowledge about the interior passages of the body. The situation here is literally ambiguous, offering the choice of different routes in labyrinth—“One soul thinks one, and another way / Another thinks, and t’s an even lay” (267-8). Instead of anatomical focus on division into parts, Donne points to the lack of knowledge about the routes of movement between them:

Know'st thou but how the stone doth enter in
The bladders Cave, and never brake the skin?
Knowst thou how blood, which to the heart doth flow,
Doth from one ventricle to th'other goe?
And for the putrid stuffe, which thou dost spit,
Knowst how thy lungs haue attracted it?
There are no passages so that there is
(For ought thou knowst) piercing of substances. (269-76)

Donne displays a close knowledge of early modern controversies about internal anatomy, particularly the movement of the blood. He considers the problem that William Harvey finally answered in *De Motu Cordis* (1628), where he proposed that the blood circulates.

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297 See Elizabeth Hanson on “capacity” in “The Interiority of Ability” (2005).
As with the appearance of phlegm in the throat, the question of how blood passes from arteries to veins poses a problem, because, so far as anatomists could tell, “There are no passages,” thus raising the possibility that the different sorts of matter could interpenetrate each other.

Like the image of the lattice, which I considered in the previous chapter, the labyrinth is an opening that simultaneously allows access and guards against entrance. Similarly, circuitous paths not only complicate, but also clarify the things that pass through them. Narrowsness is central to these images. In “H. W. in Hibernia Belligeranti,” for instance, Donne writes to Sir Henry Wotton describing him as, “thorough crooked limbecks, stilled / In many schools” (line 14-15), suggesting his passage through various places of education—Oxford, study on the continent in the house of Isaac Casaubon—has had an effect on him similar to the process of alchemical distillation. Similarly, in “The Triple Fool,” Donne considers his attempts to temper his love-sickness by transforming it into verse:

Then as the earth’s inward narrow crooked lanes

Do purge sea water’s fretful salt away,

I thought, if I could draw my paines,

Through Rimes vexation, I should them allay. (lines 6-9)

The successive metaphors of the passage compare the process of writing in verse, with its strictures of rhyme and meter, to the purifying action of “the earth’s inward narrow
crooked lanes.” Poetry in this conception—and particularly complex rhyming stanzaic structures—acts to discipline passionate feeling, to strain and allay it.

Donne attempts to allay the fear of death via a geographical version of the same trope in “Hymn to God, My God in my Sickness.” There, as in _Devotions upon Emergent Occasions_, Donne anticipates and meditates upon the experience of the afterlife from the perspective granted to those on the edge of death. From his place on the threshold, Donne looks towards both death and life, like Janus, the two-faced god of doorways:

> Since I am coming to that Holy room,
> Where, with Thy choir of saints for evermore,
> I shall be made Thy music; as I come
> I tune the instrument here at the door,
> And what I must do then, think here before. (lines 1-5)

Donne’s poem looks forward to the next world, even as he still has one foot in this one. In doing so, his vision is transformed. From this liminal perspective, the world is spread out before him:

> Whilst my physicians by their love are grown
> Cosmographers, and I their map, who lie
> Flat on this bed, that by them may be shown
> That this is my south-west discovery,
> _Per fretum febris_, by these straits to die; (6-10)

Donne’s reference to “cosmographers” instead of “cartographers”, as Howard Marchitello points out, widens the scope of enquiry. 299 While the metaphors in the passage are of

298 Compare the account of the purifying effect of sand on seawater in Bacon, _Sylva Sylvarum_ (I:1).
terrestrial mapping, the context of the poem points to the passage between earth and heaven. The narrowness of the straits passed in the suffering body, “per fretum febris,” acts to rectify the soul, to transform it in preparation for heaven, making the crooked straight. Here, narrowness and restriction are combined with the immediacy of the heaven, where everything is experienced straightaway:

I joy, that in these straits I see my west;

For, though those currents yield return to none,

What shall my west hurt me? As west and east

In all flat maps—and I am one—are one,

So death doth touch the resurrection. (11-15)

The straights of Donne’s feverish state are themselves transformed into a circuit when the two sides of the flat map touch, as “death doth touch the resurrection.” This image of the map unites the allegoric meanings of east and west—death and rebirth—to figure the process of rebirth as the speaker traverses the seas beyond the Americas and returns towards Asia, Europe, and Africa, asking,

Is the Pacific sea my home? Or are

The eastern riches? Is Jerusalem?

Anyan, and Magellan, and Gibraltar?

All straits, and none but straits, are ways to them

Whether where Japhet dwelt, or Cham, or Shem. (16-20)

These images of a progress that is both cosmographic and geographic insist on the importance of travel in Donne’s poems—as a narrative form, as a repository for

information, and as accounts of the processes of improvement and transcendence, and it is to travel narratives in particular that I now turn.

Travel Narratives, Discovery and Kepler’s Astronomy

During the European age of expansion that followed the routes round the Cape to India and across the Atlantic to the New World, travel provided a paradigmatic image of the acquisition of knowledge. Early modern exploration was important for both the goods and the information brought back from Asia, Africa, and the New World. Francis Bacon signals the importance of long-distance networks of trade to early modern knowledge production in his depiction of the idealized scientific community in the utopian *New Atlantis* (1625). A significant component of this research community are the nine “ Merchants of Light,” scientific intelligencers who travel incognito seeking out and gathering together information on technological developments and natural particulars from all corners of the world:

For the several employments and offices of our fellows; we have twelve that sail into foreign countries, under the names of other nations (for our own we conceal); who bring us the books, and abstracts, and patterns of experiments of all other parts. These we call the Merchants of Light.300

Collections and travel narratives provided two interlinked methods of early modern knowledge organization. As a genre, the travel narrative provided a frame for the ordering of material. As Justin Stagl has shown, in the late sixteenth century, a theory of

travel writing known as the *Ars apodemica* developed, which formalized the expectations for earlier genres such as the *navigatio* and the *relation.*301

Travel narratives were seen as repositories of “facts” or natural particulars suitable for the construction of natural histories. Bacon’s own work suggests the importance of these collections of natural knowledge, as can be seen from an examination of the sources of the unfinished collection intended to make up part of his natural history, the *Sylva Sylvarum.*302 The heterogeneous materials gathered in the “ten centuries” of this collection are drawn from a series of disparate sources, including both Bacon’s own experiences and written accounts. The most important of these written sources was Pliny’s *Historia Naturalis,* itself a comprehensive collection of antique knowledge of nature, but Bacon also drew heavily upon Girolamo Cardano’s compendium, *De Subtilitate,* and the contemporary travel narrative by George Sandys, *The relation of a Journey Begun Ann. Dom. 1610* (1615), or *Sandys’ Travels,* as it was to become known.

Bacon’s *Sylva Sylvarum* claims to eschew order in its listings so as to avoid premature analysis in favour of the simple collection of natural particulars. His sources, however, display a variety of organizational systems.303 Sandys’ account was understood as an appropriate carrier for all the varieties of material, including natural history, which he encountered, all organized in terms of Sandys’ itinerary, which took him from Venice, through the Greek isles to Istanbul, on to the Holy Land, Egypt, and eventually Sicily and southern Italy. Sandys’ *Relation* is, however, far from an unmediated source of

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information gathered during this voyage. Rather, Sandys’ experiences provide the setting for and are leavened with material drawn from his own reading of history, cosmography, and natural philosophy, which he had diligently digested and reused in composing his account, drawing upon works such as Richard Knollys’ *General History of the Turks* or J. C. Scaliger’s *Animadversiones* against Cardano. This aspect of the work appears most clearly in the identification, by Bacon’s nineteenth-century editors, of the item in the *Sylva* describing the Chameleon as deriving, more or less verbatim, from Scaliger. While this identification is correct, it fails to note that Bacon was not digesting Scaliger’s work—this is the only item drawn from that source in the *Sylva*—but was instead drawing upon Sandys, who had extracted the passage from Scaliger to use in his narrative.

Sandys’ own experience of his journey is almost entirely absent from the *Relation*. This is in contrast to some of the more straight-forward travel accounts in Hakluyt’s *Voyages*, which concentrate primarily on the narrative of travel: any additional matter appears only as it is raised by and bears upon that narrative. This difference is underlined by Samuel Purchas’ compilation of travel narratives and continuation of Hakluyt, *Purchas his Pilgrimages*, which contains a version of Sandys’ *Relation*, but one edited specifically for the purposes of inclusion. Purchas “pruned his sweet Poeties, his farre-set Antiquiteitie, and other fruits of his Learning” in order to “present men rather as Travellers, then as Scholers.” In doing so, he transformed Sandys to fit a different idea of travel writing and a different sort of compilation.

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304 Quoted in Haynes 37-8.
The travel narrative was itself a useful form for organizing other sorts of enquiry. Kepler’s *Astronomia Nova* (1609) offers an exceptional example of the transposability of the logic of geographical exploration into astronomical work, one that provides not only an organizational frame for historical accounts of exploration, but a hermeneutics of discovery focused on the benefits of the accidents of exploration as against the possibility of error.\(^3\) This emphasis on accidental discovery was particularly useful for Kepler’s account, because investigations of the orbit of the planet Mars involved numerous dead ends as he attempted to fit different mathematical models to the observations. These processes of mathematical approximation function as a metaphorical ‘exploration’ of the orbit of the planet Mars, which produced the discovery of its elliptical shape.\(^3\)

This section of the book is the last of three different sorts of introduction to the work. Kepler includes a dedicatory letter to his patron, the Emperor Rudolf II, which he composes as a triumph, in which he displays Mars, the god of war, as a captive bound in the chains of mathematical calculations. He follows this with an introduction for the “physicists,” in which he presents arguments directed at natural philosophers in favour of the heliocentric system. Finally, he presents an “elucidating introduction,” offering a series of synoptic tables (70-77), chapter summaries (79-107), and an index of terms and authors (108-12). As he explains, however,

> Nevertheless, the synopsis will not be of equal assistance to all. There will be those to whom this table (which I present as a thread leading through the labyrinth of the work) will appear more tangled than the Gordian Knot. For their

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sake, therefore, there are many points that should be brought together here at the beginning which are present bit by bit throughout the work, and are not so easy to attend to in passing. (45-6)

In this third introduction, Kepler contrasts the organization of his book with the conventional models for discussions of astronomy. Descriptions are either in terms of physics—organized based on the form of the thing described—or mathematics—built up from axioms like Euclidean geometry. Instead, Kepler presents “a third way, which I hold in common with the orators, which, since I present many new things, I am constrained to make plain in order to deserve and obtain the reader’s assent, and to dispel any suspicion of cultivating novelty” (78).

His genre, in other words, is that of historia, in which matter is organized in a chronological rather than a logical fashion. In particular, Kepler explains his organization of the book as being like a travel narrative, in which incidents of the voyage as well as the destination are potentially of interest to the reader:

Here it is a question not only of leading the reader to an understanding of the subject matter in the easiest way, but also, chiefly, of the arguments, meandering, or even chance occurrences by which I the author first came upon that understanding. Thus, in telling of Christopher Columbus, Magellan, and of the Portuguese, we do not simply ignore the errors by which the first opened up America, the second, the China Sea, and the last, the coast of Africa; rather, we would not wish them omitted, which would indeed be to deprive ourselves of an enormous pleasure in reading. So likewise, I would not have it ascribed to me as a fault that with the same concern for the reader I have followed this same course in
the present world. For although we by no means become Argonauts by reading of their exploits, the difficulties and thorns of my discoveries infest the very reading—a fate common to all mathematical books. Nevertheless, since we are human beings who take delight in various things, there will appear some who, having overcome the difficulties of perception, and having placed before their eyes all at once this entire sequence of discoveries, will be inundated with a very great sense of pleasure. (78-9)

Kepler's description of the advantages of the travel narrative emphasizes its effectiveness as a narrative and organizational form. Like the accounts of Christopher Columbus, Magellan, and even of the Argonauts, the surprises of the meandering form and the pleasures of vicarious discovery draw the reader into the account. Despite Kepler's claim, the *Astronomia Nova* was not a strictly historical account of his investigations. As William Donahue notes, Kepler does not "claim to present such a history: he says only that he is mingling some history with the theoretical and didactic matter of the book" (79n). Indeed, it appears that he chose which steps of his argument to include on narrative and explanatory grounds. Perhaps the best example is Chapter 58, in which Kepler describes his exploration of the *via bucciosa* or puff-cheeked orbit. James Voelkel suggests that Kepler included this example in the *Astronomia Nova* specifically because, when discussing his investigations with David Fabricius, the omission of this erroneous step had confused his correspondent and led to disagreements (193-210). In this context, the inclusion of erroneous hypotheses served a didactic function.

Error served as both a corrective and an imaginative delight. The travel narrative offered a particularly effective metaphor for this process of discovery. He argues that, just
as, “in telling of Christopher Columbus, Magellan, and of the Portuguese, we do not simply ignore the errors by which the first opened up America, the second, the China Sea, and the last, the coast of Africa,” the mistakes and false starts in his own tiresome iterative calculations of Mars’ orbit are valuable not just as pleasurable diversions, but also in their own right. This emphasis on the importance of the erroneous and accidental is drawn out through the entire work. Thus, for instance, in Chapter 7, Kepler presents an account of the accidents by which he, himself, came to study astronomy—an account that bears comparison with the accidental arrival of Duracotus’ at Tycho’s observatory on Hven in the *Somnium*.

Kepler suggests that the mathematical work in the *Astronomia Nova* is infested by “the difficulties and thorns of [his] discoveries.” If we equate the errors that beset Kepler’s work with the discoveries made on voyages, then there is a sense in which we can see his text as a resource for further mathematical work. The “thorns” which infest his work can then be seen as foreign plants that might be brought back from the new world and subsequently domesticated. The interest of the work, then, is not just in its conclusions, but in the use that can be made of its difficulties in later work. Although Kepler mentions these thorny impediments only in a couple of places in the *Astronomia Nova*, they reappear in his illustrations: many of the complex diagrams illustrating the hypothetical relationships between the planets are surrounded by printed woodcut ornaments of flowers and plants, as if to mark out these illustrations as places of difficulty. These might, like the facts in real travel narratives, be plucked out of the book and reused in other settings.
Approximating Heaven: The Trajectory of Knowledge in the “Progress of the Soul” and the “Elegy on Prince Henry”

Kepler’s use of the travel narrative to describe astronomical exploration proposes a sort of knowledge of the heavens quite different from the accounts of physics and astronomy, and much more like the dream vision of the night sky at the beginning of Ignatius, his Conclave. Unlike that moment, however, Kepler’s metaphor puts forward the possibility of the sort of experience of the heavens that is described in the first stanza of George Herbert’s “Vanity” (I):

The fleet astronomer can bore
And thread the spheres with his quick-piercing mind:
He views their stations, walks from door to door,
Surveys, as if he had designed
To make a purchase there: he sees their dances,
And knoweth long before,
Both their full-eyed aspects, and secret glances. (lines 1-7)

The poem shares the conventional idea that the observation of heavens is an imaginative process: as Francis Bacon puts it, “that by learning man ascendeth to the heavens and their motions, where in body he cannot come.”307 Like the section describing Elizabeth Drury’s “long-short progress” in the “Progress of the Soul,” however, this exploration is explicitly a process of traversing the heavens. The astronomer can “thread the spheres with his quick-piercing mind,” thereby transforming it into a physical space that can be surveyed and even purchased. As with Kepler, the logic of geography is overlaid on the

heavens, but the fit between the two, their affinity, is not quite perfect—as the transition to love imagery suggests.

We can see the difference between cosmographic and geographic exploration, recast into a quite different key, in “Love’s Progress”—a poem that also plays with the different meanings of progress. In that poem, Donne describes a series of different approaches to the female body as contrasting sorts of travel narratives. He divides the poem into three sections. In the first, the speaker announces the objective of the poem: “Who ever loves, if he do not propose / The right true end of love, he’s one that goes / To sea for nothing but to make him sick” (lines 1-3). Although the poem intimates as much, it becomes clear that the speaker’s goal throughout is explicitly sexual, taking the form of the woman’s “centric part” (line 36). That exploration, however, is explicitly contrasted to the exploration of the heavens (and thus with a different, Copernican, search for the center):

Search every sphere
And firmament, our Cupid is not there;
He’s an infernal god, and under ground
With Pluto dwells, where gold and fire abound:
Men to such gods their sacrificing coals
Did not in altars lay, but pits and holes.
Although we see celestial bodies move
Above the earth, the earth we till and love:
So we her airs contemplate, words and heart
And virtues, but we love the centric part.
Nor is the soul more worthy, or more fit,

For love than this, as infinite is it. (lines 27-38)

In relocating the goal of love “under ground,” Donne overthrows the conventional metaphor of love as a heavenly experience that exalts those who experience it, for its infernal, and decidedly carnal, alternative. The second and third parts of the poem present contrasting blazons of a woman’s body: a conventional blazon beginning with the hair and forehead, which portrays the progress across the woman’s body as a voyage of exploration; and an anti-blazon beginning at the feet, which uses ideas of symmetry to play on astronomical tropes as it looks upwards, as if into the vault of heaven, towards her centric part.

Where, as Nancy Vickers has argued, the blazon violently divides the female body into a series of separate parts, the second section of “Love’s Progress” uses the figure of the voyage of exploration to knit those parts together. The parts of the woman’s body are geographized as a New World discovered overseas:

The nose (like to the first meridian) runs

Not ‘twixt an East and West, but ‘twixt two suns;

It leaves a cheek, a rosy hemisphere,

On either side, and then directs us where

Upon the Islands Fortunate we fall,

(Not faint Canaries, but Ambrosial)

Her swelling lips

[...]

These, and the glorious promontory, her chin,
O’erpassed, and the straight Hellespont between
The Sestos and Abydos of her breasts,
(Not of two lovers, but two loves the nests)
Succeeds a boundless sea, but yet thine eye
Some island moles may scattered there descry;
And sailing towards her India, in that way
Shall at her fair Atlantic navel stay (lines 47-53, 59-66)

The locations described—the Fortunate Isles, the Sestos and Abydos of Hero and Leander—are insistently eroticized. Like Kepler in the Astronomia Nova, this account emphasizes the discoveries made as a result of the accidents of travel, although “When thou art there, consider what this chase / Misspent by thy beginning at the face” (39-40).

This geographic account of the body, however, merely prefigures a more radical dissolution of the body, one that slips directly from foot to groin, not pausing on any part in between:

Rather set out below; practise my art.
Some symmetry the foot hath with that part
Which thou dost seek, and is thy map for that,
Lovely enough to stop, but not stay at. (lines 73-6)

The resemblance between the space between the toes of the foot and the juncture of a woman’s legs leads the lover from one to the other, setting out from below and rising up through the hollow space between the legs as if through the vault of the heavens:

If kings think that the nearer way, and do
Rise from the foot, lovers may do so too;
For as free spheres move faster far than can
Birds, whom the air resists, so may that man
Which goes this empty and ethereal way,
Than if at beauty’s elements he stay. (85–90)

As I suggested in Chapter One, the imagery of free spheres and the flight of birds suggests the contrast between Ptolemaic and Stoic cosmologies. The “empty and ethereal way” opens up above the lover like the vault of heaven. By looking up towards heaven in this way, the poem emphasizes the differences between a vision of the cosmos that seeks its center on earth and one that seeks it above in the heavens. This emphasis on the difference between the traversal of geographic spaces and the trajectory of those who rise up towards heaven reiterates the difference between earthly progress—to whatever end—and the progress of the soul towards heaven.

In this context, I want to finish by following the trajectory of the “Progress” and comparing it to another poem, Donne’s “Elegie On the vntimely Death of the incomparable Prince, Henry” (1613). Read in parallel, the themes and concerns of these two poems reinforce and clarify each other. The “Elegy for Prince Henry” comes out of circumstances similar to those of the Anniversaries. It, too, is concerned with the process of building up an exemplary image by contrasting earthly and heavenly knowledge. The eldest son and heir of King James, Prince Henry died at the age of eighteen. He was commemorated not only by elaborate funeral ceremonies but also by a collection of poems, the Lachrymae Lachrymarum (1613), printed by Henry Lownes with the striking use of all-black pages. The poems commemorate Prince Henry’s status as a putative
Protestant champion, as a patron of the arts and sciences, and as future King of England. Donne contributed a funeral elegy to the third edition of the poems, one that, supposedly, according Ben Jonson, aimed to match Sir Edward Herbert in obscurity. Both poems figure the process of commemoration in terms of the mourners’ approach to heaven: the “Progress” via a trajectory; the “Elegy on Prince Henry” via two circles, one encompassing the other. In these accounts, there is a tension between knowledge derived from reason, which builds up from accidents and particulars, and knowledge based on faith which must leave those particulars behind in order to direct its attention to heaven.

This conflicting attention to heaven and earth plays out in the movement of the Second Anniversary. As the introductory poem to Second Anniversary, Joseph Hall’s “Harbinger to the Progresse,” suggests, the “Progress of the Soul” features not one, but a series of excursions into the heavens—those of Elizabeth Drury’s soul, of Donne in his attempt to follow her, and, lowest of all, that of Joseph Hall. Early in the “Progress” the reader is told, as in “Love’s Progress,” to “Looke vpward; that’s towards her, whose happy state / We now lament not, but congratulate” (65-6). The poem performs a circuit, not travelling out and around the countryside like a progress, but rising up into the vault of heavens. The narrative of the poem travels like a stone thrown into the sky: the speaker’s soul rises “Vp, vp,” the scale of heaven, seeing those who sit at each rung:

\[
\text{Vp vp, my drowsie soule, where thy new eare}
\]
\[
\text{Shall in the Angels songs no discord heare;}
\]

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310 Bald 269-70.
Where thou shalt see the blessed Mother-maid
Joy in not being that, which men haue said.
Where shee is exalted more for being good,
Then for her interest, of mother-hood.
Vp to those Patriarckes, which did longer sit
Expecting Christ, then they haue enioy'd him yet.
Vp to those Prophets, which now gladly see
Their Prophesies growen to be Historee.
Vp to th'Apostles, who did brauely runne,
All the Suns course, with more light then the Sunne.
Vp to those Martyrs, who did calmly bleed
Oyle to th'Apostles lamps, dew to their seed.
Vp to those Virgins, who thoughts that almost
They made ioynt tenants with the Holy Ghost,
If they to any should his Temple giue.
Vp, vp, for in that squadron there doth liue
Shee, who hath carried thether, new degrees (338-57)

It then hangs for a moment, to observe essential joys, (“But pause, My soule, and study
ere thou fall / On accidentall ioyes, th’essentiall” [383-4].) before finally falling down
again to earth—and landing, prosaically, in France, where Donne was accompanying Sir
Robert Drury on his travels (lines 512-28).

The movement of the poem, however, is not quite so simple. Although Donne
reaches towards heaven, continually striving upwards, the poem repeatedly fails in its
attempts to concentrate on its goal as it is distracted by earthly—specifically bodily—particulars. Repeatedly, the “Progress” returns to the bodily and terrestrial as if unable to draw away from it, seeking in the worldly things traces of the heavenly which enable further flight. Thus, the speaker has to urge himself to greater heights, imploring “Then, soule, to thy first pitch worke vp againe” (435), in order to attempt to match the trajectory of Elizabeth Drury, whose soul “was all this All, and could not fall” (376). Such traces are often not visual, but aural: early in the poem, as he contemplates the body on its death bed, Donne says to his readers, “Thinke thy selfe laboring now with broken breath / And thinke those broken and soft Notes to bee / Diuision, and thy happiest Harmonee” (lines 90-3). In doing so, he draws attention to the consonance of particulars. This turn to the musical is evident is the language of poem as it scales heaven, striking to reach the highest “pitch” in the resounding vault of heaven. Like the *Anniversaries*, Donne’s “Elegy on Prince Henry” addresses the mourners’ attempt to follow their beloved’s soul. The poem begins with a similar disjunction in modes of knowledge:

Look to Me, *Faith*; and look to my *Faith*, GOD;

For, both my *Centres* feel This *Period*.

Of *Waight*, one *Centre*; one, of *Greatness* is:

And REASON is That *Centre*; FAITH is This. (1-4)

These two circles, one encompassing the other, describe the difference between the sorts of knowledge available to faith and reason. Like the dense earth of Aristotelian physics, reason offers a weighty (and, by implication, mournful) center for knowledge, where, by comparison, faith encompasses all:

For, into our *Reason* flowe, and there doe end,
All that this naturall World doth comprehend;

*Quotidian* things, and Equi-distant hence,

Shut-in for Men in one *Circumference*.

But, for th’enormous *Greatnesses*, which are

So disproportion’d and so angulare,

As is GOD’s *Essence, Place, and Providence*,

*Where, How, When, What, Soules* do departed hence:

These *Things* (*Eccentrique* else) on *Faith* do strike;

Yet neither All, nor vpon all alike:

For, *Reason*, put t’her best *Extension*,

Almost meetes *Faith*, and makes both *Centres* one:

And nothing euer came so neer to This,

As *Contemplation* of the PRINCE wee misse. (5-18)

While Donne depicts the natural world as contained within and comprehended by the faculty of reason, from that limited perspective the enormous “*Greatnesses of God*” (9) seems distorted, so “disproportion’d and so angulare” (10), because they instead center on faith.

In this context, the contemplation of the missing Prince Henry is likened to a process of mathematical approximation—though this meaning of the word does not come into use until the late seventeenth century. The poem mobilizes worries about eccentricity in astronomy as emblematic of problems in knowledge. Early modern astronomical models included a series of systems with multiple centers: Kepler’s system of ellipses, with their paired foci, and the Tychonic model, in which the sun orbited the
earth and the other planets orbited the sun. However, Donne is more likely to be
referring to the eccentric, the dislocated center of the circular orbits used by both the
Ptolemaic and Copernican systems. By doing so, Donne draws attention to the
problematic status of mathematical systems of astronomy, even in cases where they “save
the appearances.” He reinforces this case with explicit reference to the Copernican
controversies over the relative positions of the sun and earth, and the problems of
relocating them that I discussed in Chapter One:

If then, least Mouings of the Centre make

(More than if whole Hell belch) the World to shake,

What must This doo, Centres distracted so,

That Wee see not what to believe or knowe? (21-4)

The poem fits these arguments to the context of the poem’s metaphor of circles of faith
and reason, using the possibility of the moving earth to emphasize the disjunction
between the two, whose centers are so far apart—“distracted so.”

Distraction, and particularly the distraction of worldly grief, is the fundamental
problem of both poems. As in the “Anatomy,” the contemplation of earthly things is
suffused with grief. The “Elegy on Prince Henry” asks,

What had His growth and generation done?

When what we are, his putrefaction

Sustains in us, Earth; which Griefs animate:

Nor hath our World now other soul then That.

311 For lucid discussions of the technical details of Ptolemaic and Copernican astronomy,
see Kuhn, The Copernican Revolution (1957); Lattis, Between Copernicus and Galileo
And could *Grief* get so high as Heav’n, that *Quire*

Forgetting This, their new Ioy would desire

(With grief to see him) *Hee* had staid belowe,

To rectifie Our *Errors* They foreknowe. (lines 55-62)

After his departure, only the grief of his passing animates the dead body of the earth, but even this force is not enough to rectify the errors of the earth. Here in the “Elegy,” as in the “Progress,” the repeated act of thinking about, of dwelling on, the deceased stretches the limits of comprehension available to reason towards the perfection of heaven—and necessarily so, because, as the “Progress” notes “what essentiall ioy canst thou expect / Here vpon earth? what permanent effect / Of transitory causes?” (387-9).

Both poems struggle to turn the attention that consistently drifts towards the accidental, the particular, away from these things and towards the numinous. In doing so, the poems become about the process of discovering metaphorical conceits, of reading from the physical to the metaphysical. Donne enacts this process via the forms which are not perfect, but move towards perfection: the trajectory of the “Progress” which approaches heaven, the expansion of the circle of reason towards the circle of faith—a process for which Elizabeth Drury becomes the figure:

Shee, who by making a full perfection grow,

Peeces a Circle, and still keepes it so,

Long’d for, and longing for’t, to heauen is gon,

Where shee receiues, and giues addition. (507-10)
Though dead, she is not a “child embalmed to make mummy,” but a living, growing figure of perfectibility, a pattern—like the lovers in “The Canonization”—for those below.
Conclusion: The “Copernicus of Poëtrie”?

Looking back on Donne’s work, Thomas Pestall called him the “Copernicus of Poëtrie.”312 By the early seventeenth century, Copernicus had become a conventional figure for new knowledge and new discoveries. By comparing Donne to the great astronomer, Pestell identified him with new poetic endeavour, new poetic discovery, and, perhaps, new methods of comparison. One of Donne’s references to Copernican theory, in his *Devotions Upon Emergent Occasions* (1623), suggests that he himself was inclined to think in similar terms. There, he describes his own symptoms, on rising from bed after a fever, in these terms:

> I am *up*, and I seeme to *stand*, and I goe *round*; and I am a new *Argument* of the new *Philosopbie*, That the *Earth* moves round; why may I not beeleeve, that the *whole earth* moves in a *round motion*, though that seeme to mee to *stand*, when as I seeme to *stand* to my *Company*, and yet am carried, in a giddy, and *circular motion*, as I *stand*? Man hath no *center*, but *misery*, *there* and onely *there*, hee is *fixt*, and sure to finde himselfe. How little soever he bee *raised*, he *moves*, and moves in a *circle* giddily; and as in the *Heavens*, that goe about the whole world, but many *Epicycles*, and other lesser *Circles*, but yet *Circles*, so of those men, which are *raised*, and put into *Circles*; few of them moves from *place* to *place*, and passe through many and beneficiall places, but fall into little *Circles*, and within a step or two, are at their *end*, and not so well, as they were in the *Center*, from which they were *raised*. Every thing serves to *exemplifie*, to *illustrate* mans *misery*; But I need goe no

---

farther, than my selfe; for a long time I was not able to rise; At last, I must bee raised by others; and now I am up, I am ready to be lower than before.\textsuperscript{313}

In this passage, Donne mobilizes the accommodationist arguments about the movement of the earth deployed by Copernicus, Kepler and Galileo, but tunes them to the corporeal experience of feverish dizziness. This version of the argument is both like and unlike the description of the boat sailing for port which was the most common account offered in support of the Copernican hypothesis.\textsuperscript{314} While Donne, here, is making the same point about relative motion, his description is deeply embodied, based upon his own recent experiences with fever. His giddiness is doubled: it is not only representation of the dizziness of the weakened body in the aftermath of a fever, but also an image of poetic motion, the motion of his own ranging, vagrant imagination, which turns his experience to exemplary ends. He makes a second comparison between the system of the planetary movement and man’s own place in the cosmos: “Man hath no center, but misery” and “Every thing serves to exemplifie, to illustrate” this fact. Copernican astronomy provides the basis for this exploration, too, with its images of the vagrant paths of man, like the wandering stars observed in the night sky—the fate to which Copernicus has condemned the inhabitants of the earth, who had once rested so safe and still.

The clarity of Donne’s close description, the far-fetched wit of his comparisons, and the exemplary ends to which these attributes are subordinated, all go together to

\textsuperscript{313} Meditation XXI, \textit{Devotions upon Emergent Occasions}, ed. Raspa (1975) 111.

\textsuperscript{314} Copernicus, for instance, uses a quote from Virgil about the apparent motion seen by sailors (\textit{Aeneid} III. 72) as evidence for his claims about the movement of the Earth: “when a ship is floating calmly along, the sailors see its motion mirrored in everything outside, while on the other hand they suppose that they are stationary, together with everything on board. In the same way, the motion of the earth can unquestionably produce the impression that the entire universe is rotating,” \textit{On the Revolutions} (1992) 16.
make up Donne’s metaphysical mode of poetry. That mode, however, is dependent upon methodical forms of knowledge, like Copernican and Ptolemaic astronomy, Vesalian anatomy, and royal progresses. The structural basis of Donne’s comparisons seeks fitness and proportion in reconciling discordant systems, in seeing the relationship between instruments and activity. Metaphysical poetry comes about at the moment when descriptive attention to the natural world and methodical organization try to fit themselves to each other. It subsists in and arises out of a disjunction between emblematic and analogic modes of metaphor. With the passing of this contingent historical moment, the appropriateness of this poetic mode comes into question, and for a time passes out of vogue. But Donne remains one of its discoverers, and his poetic successors inherited a wider world from him.
Works Consulted


Anderson, Judith H. "'but We Shall Teach the Lad Another Language': History and Rhetoric in Bacon, Ford, and Donne." *Renaissance Drama* n.s. 20 (1989): 169-96.


———. *The Essays or Counsels, Civill and Morall*. Edited by Michael Kiernan. Oxford:


———. "Tycho Brahe's Critique of Copernicus and the Copernican System." *Journal of the*


Campbell, Mary Baine. "Alternative Planet: Kepler's Somnium (1634) and the New World." In


Conrad, Lawrence I., Michael Neve, Vivian Nutton, Roy Porter, and Andrew Wear. *The Western Medical Tradition, 800 Be to Ad 1800*. Cambridge: Cambridge University Press,


Erasmus, Desiderius. *Collected Works of Erasmus*. Toronto: University of Toronto, 1982-.


Faust, Joan. "John Donne's Verse Letters to the Countess of Bedford: Mediators in a Poet-


———. "Science and Theology in the Middle Ages." In *God and Nature: Historical Essays on the


Hesse, Mary B. *Models and Analogies in Science*. Notre Dame, IN: University of Notre Dame


Iliffe, Robert. "'In the Warehouse': Privacy, Property and Priority in the Early Royal Society."


Jardine, Lisa, and Alan Stewart. Hostage to Fortune: The Troubled Life of Francis Bacon 1561-


Jones-Davies, M.T. "Les Inventions sous Les Feux de la Satire." In *Inventions et Découvertes au


Lindberg, David C., and Ronald L. Numbers, eds. Reappraisals of the Scientific Revolution.


Herissey: L'Age d'Homme, 1983.


Nolan, Edward. Now through a Glass Darkly: Specular Images of Being and Knowing from Virgil to


———. *Perspective as Symbolic Form*. Edited by Christopher Wood. New York: Zone Books,


Patrides, C. A. "John Donne Methodized; or, How to Improve Donne’s Impossible Text with


———. *The Poetics of Melancholy in Early Modern England*. Cambridge: Cambridge University


Vesalius, Andreas. De humani corporis fabrica, libri septem. Basilileae: Ioannes Oporinus, 1543.


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