

Aspects of Science in the Works of Donne and Milton

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The candidate confirms that the work submitted is his own and that appropriate credit has been given where reference has been made to the work of others.

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Abstract

This thesis exploits the tendency within the early modern period for intellectual eclecticism in order to understand how educated renaissance figures understood the nature of knowledge. Through a detailed study of how both John Donne and John Milton interpreted, acknowledged, and assimilated the understanding gained through their scientific reading and interests into their artistic, literary, and philosophical writings, this thesis outlines a variety of the period's reflections on the nature of knowledge. Amongst these philosophies, questions of the permissibility of gaining access to information, hierarchical relationships between the knowledge accessed through emergent scientific practices and established literary traditions, and the influence of modern technology upon the quality (and even the trustworthiness) of learning gathered through such endeavours act to establish a collection of academic strategies which early modern intellectuals used to help them navigate the rapidly expanding landscape of knowledge.

In pursuing the areas outlined above, the thesis uses an innovative chronological methodology which – whilst fairly common amongst Milton studies – is unusual in the field of Donne scholarship. The predominantly chronological methodology offers several benefits to the thesis. Notably, it allows for the progress and development of ideas over the lives of both writers to be examined. Furthermore, this methodology causes texts to be read according to their merit rather than their arbitrarily assigned 'historical importance'. Thus, the thesis offers new and detailed readings of texts covering the breadth of Donne and Milton's respective corpuses selected for their value to the thesis's remit. It is for this reason that the thesis offers extensive readings of not only major canonical works such as *Paradise Lost*, *Samson Agonistes*, 'The First Anniversary', and Donne's Sermons but also affords the same level of attention to *Ignatius His Conclave*, and Milton's *Commonplace Book*. The chronological methodology also causes a heightened focus upon intertextual readings within

the thesis – with prose and poetry considered alongside each other so as to produce a richer and fuller understanding of the respective authors’ canons that is not limited by genre.

The thesis, ultimately, offers two intersecting case studies of educated individuals which – in some areas – offer a broader understanding of how the emergence of new areas of knowledge and new classifications within the panorama of human learning were interpreted, managed, and accommodated.

Abbreviations

| | |
|---|-------------|
| Cambridge University Press | CUP |
| <i>English Literary History</i> | <i>ELH</i> |
| <i>Huntington Library Quarterly</i> | <i>HLQ</i> |
| <i>Oxford English Dictionary</i> | <i>OED</i> |
| Oxford University Press | OUP |
| <i>Proceedings of the Modern Language Association</i> | <i>PMLA</i> |

Numerous editions of both Donne and Milton's works have been consulted in the production of this thesis and all are cited in the bibliography. When citing Milton's prose works within this thesis all quotations, unless otherwise stated, are taken from J. Milton, *The Complete Prose Works of John Milton*, ed. Don Wolfe (New Haven and London: Yale University Press, 1966), 8 vols. For Milton's shorter poetry all quotations are taken from J. Milton, *The Complete Shorter Poems*, 2nd edition, ed. J. Carey (London: Longman, 1997), and in the case of *Paradise Lost* quotations relate to J. Milton, *Paradise Lost*, 2nd edition, ed. A. Fowler (London: Longman, 2007). All references to Donne's poetry are taken from J. Donne, *The Complete Poems of John Donne*, ed. R. Robbins (London: Longman, 2010). The editions from which those quotations relating to his prose, letters, and sermons are taken are noted in footnotes upon the first citation from each work.

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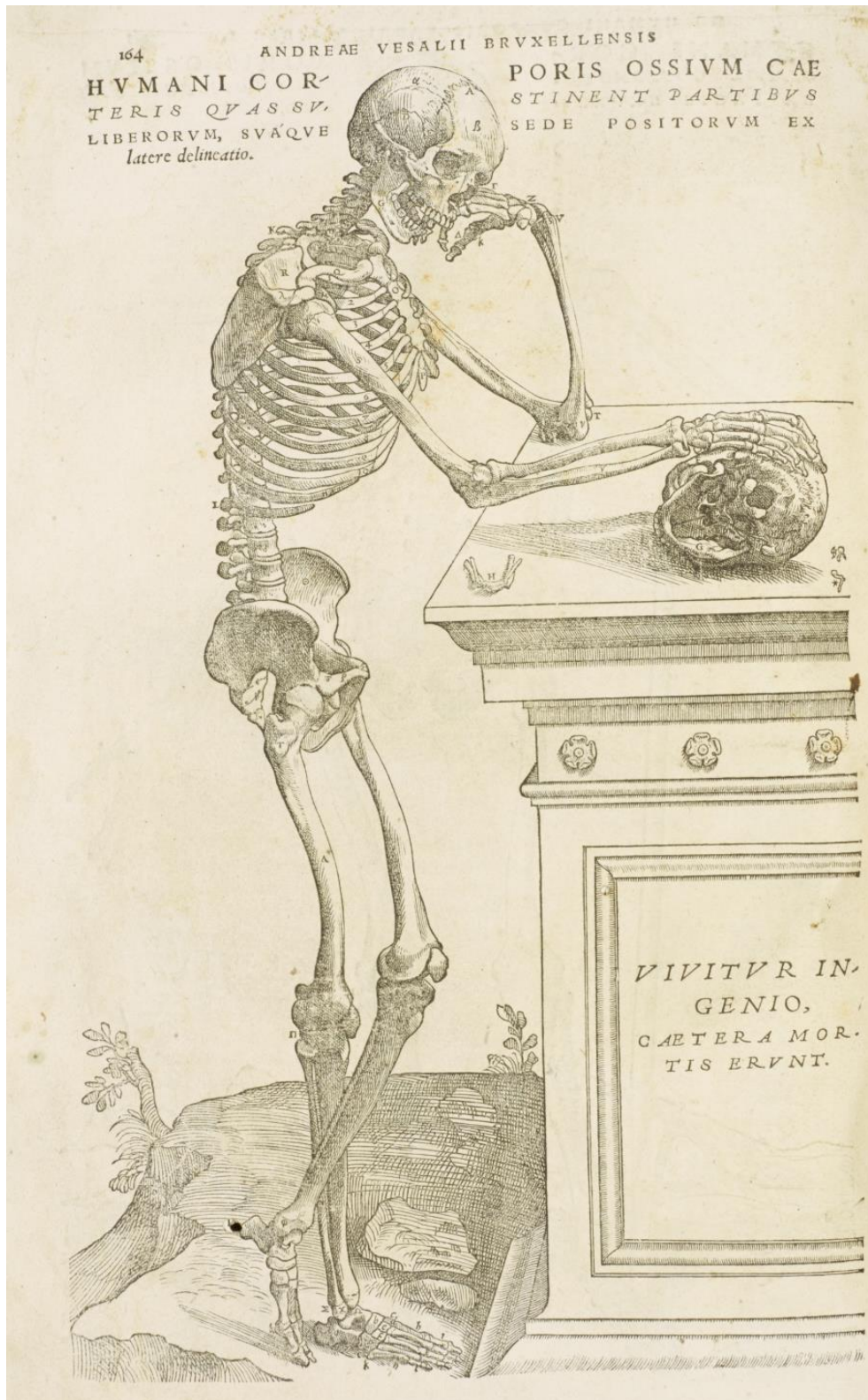
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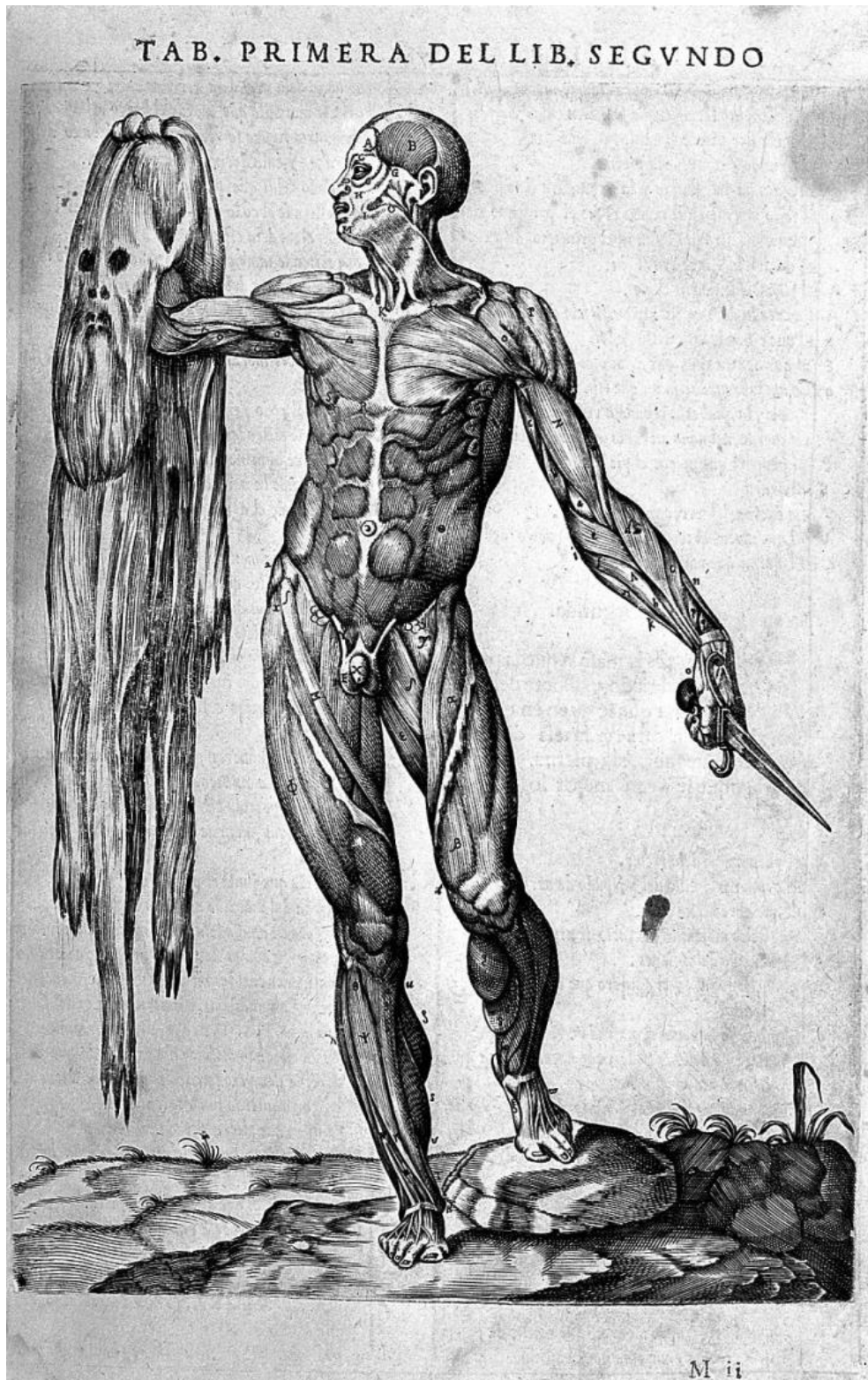
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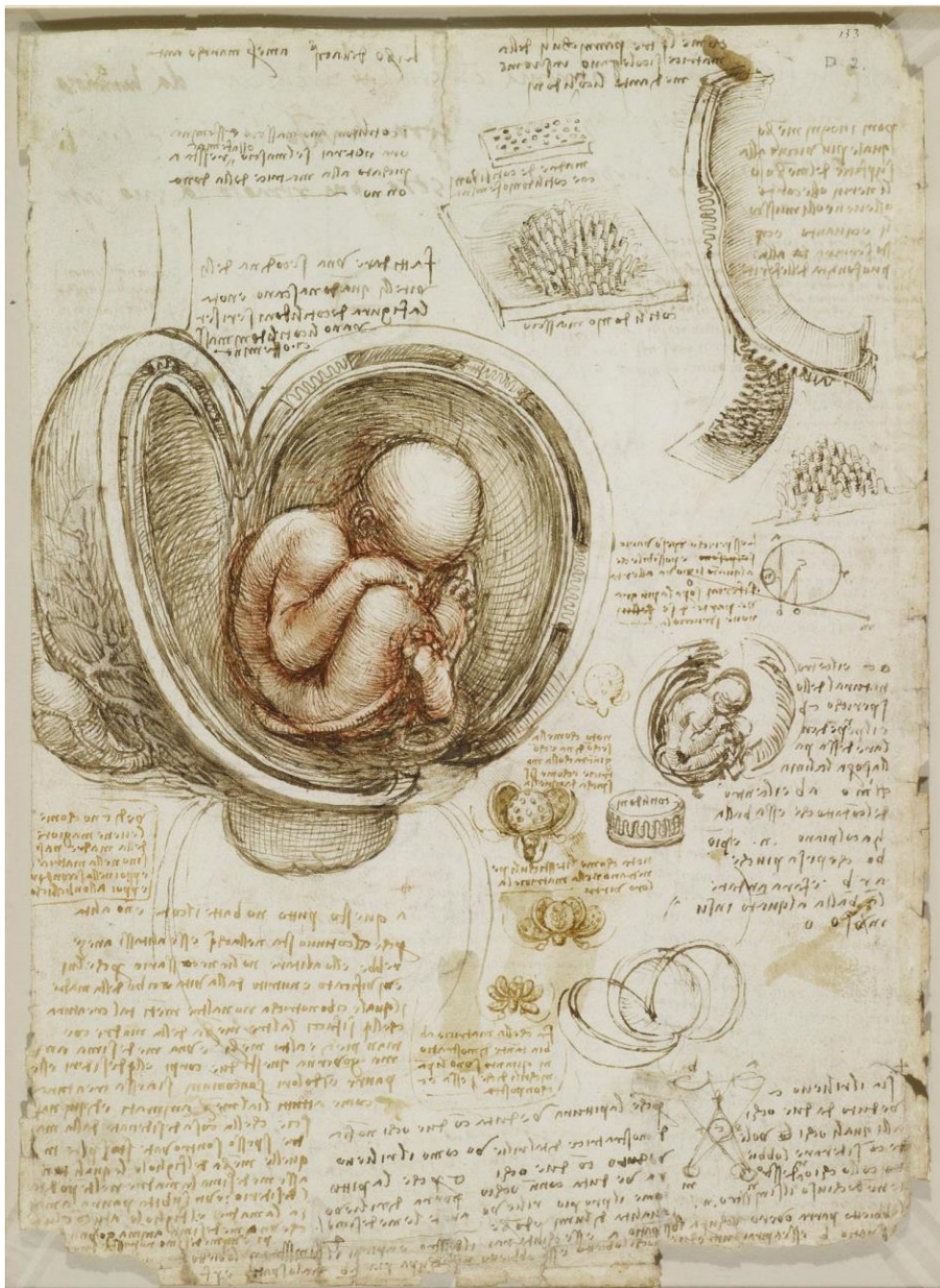


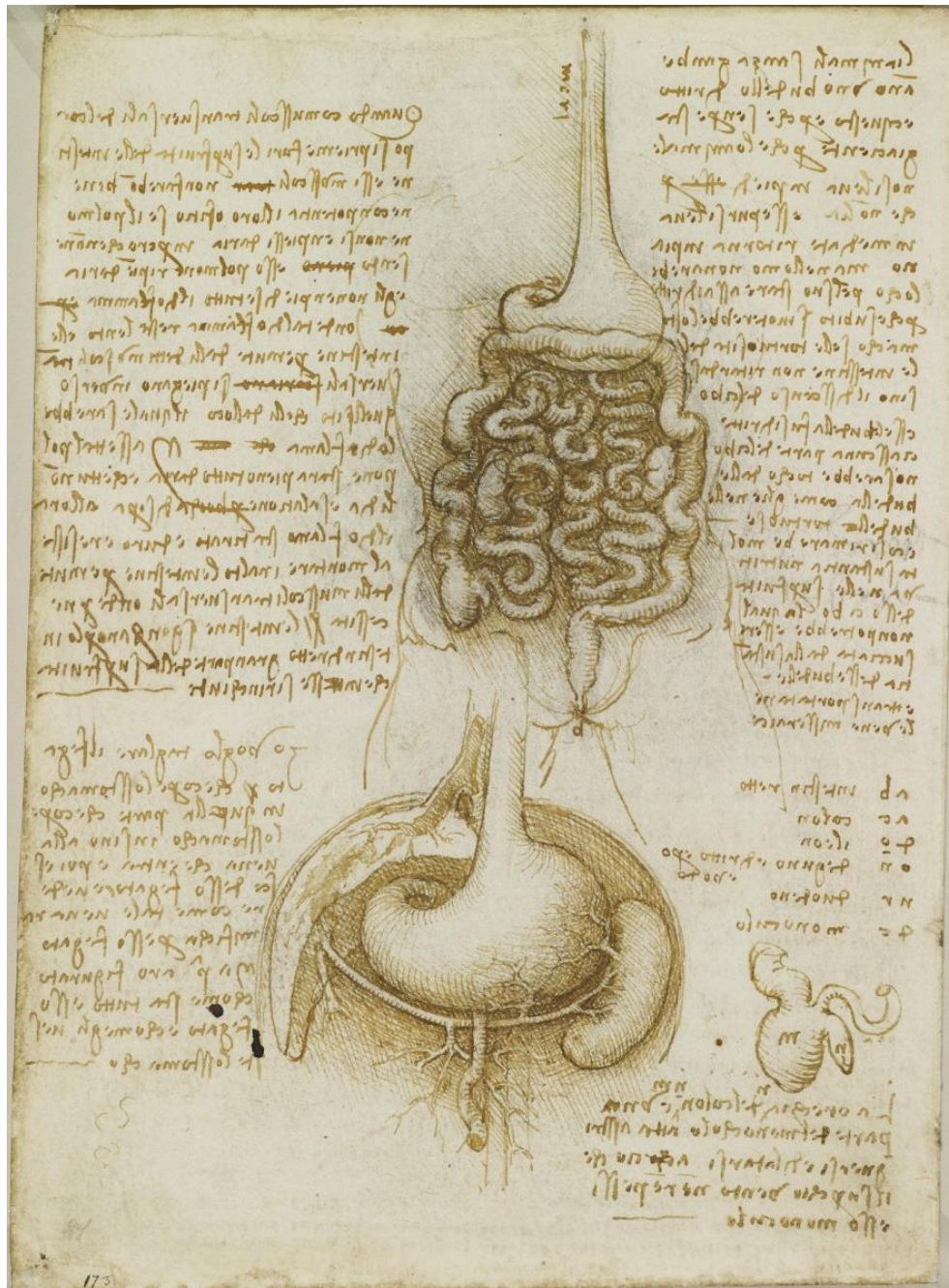
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Introduction

The aim of this thesis is to demonstrate the various means by which science was incorporated into the literary outputs of Donne and Milton. Through an examination of these two figures' writings, and their respective treatments of their personal knowledge of scientific literature, we can gain an insight, more broadly, into the manner by which intellectual figures of the early modern period understood and appropriated knowledge. The process of absorbing scientific learning, understanding these thoughts, and then displaying knowledge of scientific theory through the lens of creative writing varies greatly between these two major figures of the Tudor and Stuart periods and it is through the differences between these figures that we can begin to re-evaluate the manner by which knowledge was categorised, understood, and proliferated within early modern Britain.

Whilst it may be easier to find disparity between the figures of Donne and Milton than to find commonality, certain similarities are immediately apparent. Both were highly educated and learned figures, both are now considered amongst the most influential literary figures of their respective periods, both had strong religious inclinations which imposed upon their daily lives, both travelled within Europe in their youths, and both had careers in which they veered between the extremes of societal acceptance and rejection. Whilst the chronology of their lives precluded professional interactions (Donne was born in 1572 and died in 1631, whilst Milton, twenty-two at the time of Donne's death, lived until 1674) this did not prohibit Milton interacting with Donne. W. B. Hunter, Jr, is somewhat too bold in deducing that since Milton attended St Paul's School at the time of Donne preaching at the cathedral, Milton 'must have heard' some of his sermons,¹ but there is a possibility that he would, on

¹ W.B. Hunter, Jr, ed., *A Milton Encyclopedia*, vol.5 (London: Associated University Presses, 1978), p.110. Hunter makes this assertion despite noting that there is 'no evidence that Milton ever read so much as a single verse by John Donne'.

occasions, have been amongst Donne's congregation. It is true that there is no evidence of Milton ever having read any of Donne's works, and yet Tillyard has noted how 'certain of Milton's minor poems do exhibit traces of the metaphysical style' and that this could be due to the 'temporary influence of Donne's rhetoric'.² Tillyard ultimately, and correctly, concludes that Donne and Milton take very different artistic directions 'the former investing his emotional and intellectual energy into a 'private' mode of poetry... the latter choosing a more 'public' mode.'³

Tillyard's approach demonstrates a key methodology that this thesis has employed when uniting the works of Donne and Milton. Whilst the similarities and interaction between these two writers may not define the two as being inherently linked, it is the disparities between the two authors that enrich this thesis. Whilst Donne includes references to Kepler's *Astronomia Nova* within *Biathanatos*, despite there being a very brief period between the composition of these two texts,⁴ Milton was still discussing Galileo's *Siderius Nuncius* within *Paradise Lost* some sixty years after Galileo's work was first published. Circumstances such as these offer a valuable insight into the respective approaches of these writers with regards to knowledge acquisition. Clearly, this particular instance suggests that Donne was more rapid in accepting new knowledge, possibly as Marjorie Nicolson has suggested out of sheer 'excitement',⁵ and that Milton was more conservative in his approach. There are also major differences between the styles by which these two examples of interdisciplinary knowledge are displayed. Milton refers to Galileo, his tools, and his findings with great subtlety (pp.237-256). The references are interlaced throughout the whole of *Paradise Lost* and can be read as

² Ibid.

³ Ibid.

⁴ It is impossible here to use publication as a guide to Donne's access to *Astronomia Nova*, and the ideas contained within it. *Astronomia Nova* was first conceived in 1605 but was only published in full in 1609 owing to legal issues. Donne's work, written during his time in Mitcham, was not published until after his death owing to its potentially scandalous content.

⁵ M. Nicolson, 'Milton and the Telescope', *ELH*, 2:1 (April, 1935), 1-32, p.1.

integral to Milton's understanding (and arguments on the nature) of knowledge, curiosity, and faith. Donne's reference, whilst still contributing to his arguments, is far briefer and also far more explicit. Whilst demonstrating that Aristotle's followers still believe in his theory of immutable heavens, despite the discovery of new stars, Donne argues against holding an opinion merely because it is well established by time. Without the side-note demonstrating Donne's proof to come from 'Keplerus de Stella Serpentarij. Ca: 23.' a reader might deduce that this fact may equally have been drawn from the observation of a supernova by Tycho Brahe in 1572. Donne's choice of Kepler's work, both a radical and also very recent work, is telling. It shows Donne to be firmly positioning his literary persona as being fully abreast of the latest intellectual developments, and also that as an individual he had a willingness to take on (and candidly display) new knowledge. This 'newness' of the reference would also have had the added attraction to Donne that as a new work, no works disputing Kepler's claims would have been apparent at the time when he was writing. Therefore, unlike Milton who revelled in and explored the debates that surround Galileo's contributions to knowledge and the debates caused by Copernicus's discoveries, Donne can be seen to be fortifying his arguments by use of both obscure and, at the time, unchallenged knowledge.

Differences such as these demonstrate the divergent approaches to incorporating scientific knowledge within literature that these figures employed. That Donne and Milton share various similarities in the manner by which they employ scientific literature (as we shall see in their similar attempts to transmit the 'unknown' to their readership, and between the blazoning effect of Donne's anatomical imagery and of Milton's dissecting process employed in creating his *Commonplace Book* serves to increase the importance of the disparities between their two respective approaches. Indeed, despite their differences the pair share certain crucial similarities which allows for this thesis to define them as working towards the same ultimate goals and within the same overarching frameworks. Thus, their

respective differences enable the thesis to include a broad range of materials and approaches whilst maintaining a highly focused remit.

As well as focussing upon two authors who are rarely studied in conjunction with each other, this thesis also uses a radical chronological methodology. Whilst it is more commonly a conservative framework, owing to the difficulties associated with dating many of Donne's works, a chronological approach is particularly unusual when approaching the works of Donne. Indeed despite chronological methodologies being simpler to employ in the case of Milton, prior to the Longman Annotated Poets edition of Milton's works editors had employed a variety of methods when presenting Milton's poems that neglected to various degrees the possibilities presented by a chronological edition. Helen Darbishire's two-volume edition of *The Poetical Works of John Milton* offered a first volume containing *Paradise Lost* and then a second in which she placed *Paradise Regain'd*, *Samson Agonistes* and 'after these, the other poems which Milton selected for publication in his lifetime.'⁶ Clearly, such an approach gives prominence to the 'major poems' at the expense of the 'minor' works. Walter Mackellar's 1930 edition of Milton's Latin poems also demonstrates how Milton's works had, prior to John Carey's edition, been separated along the lines of genre or language. In the case of Mackellar's edition the stated purpose of such a methodology is to remove 'any obstacle to the apprehension of their merits'⁷ of Milton's Latin poems, but of course producing a volume with this as its stated purpose demonstrates a tendency within Milton studies to belittle the importance of the 'minor' poems. The 1968 Longman edition of *The Complete Shorter Poems*, however, is the most influential within a move towards approaching Milton's poetry in a chronological fashion.⁸ As we have seen, prior to this

⁶ J. Milton, *The Poetical Works of John Milton*, ed. H. Darbishire (Oxford: Clarendon Press, 1952-5), p.iii.

⁷ J. Milton, *The Latin Poems of John Milton*, ed. W. Mackellar (New Haven: Yale University Press, 1930), p.ix.

⁸ The Longman edition is preceded in approaching Milton chronologically by Douglas Bush's 1966 edition, and was followed by John T. Shawcross's 1971 edition (both of which employed a chronological methodology),

edition's publication Milton studies suffered the same compartmentalised approaches to which Donne studies is still largely subject. *Paradise Lost* had often overshadowed the rest of Milton's works. It occupied a position of being considered the zenith of Milton's oeuvre and, therefore, his shorter works were relatively neglected from both an academic and popular readership perspective.

Despite the fact that it is now seen as essential for a critic to have a full grasp of the chronology of Milton's works and life, to approach Donne's works chronologically can initially still seem foolhardy. His poems are notoriously difficult to date, particularly the 'Songs and Sonnets', and often editors of his work attempt to organise the poems based upon genre. Indeed, in much the same way the poetry and the prose are regularly separated. However, in common with several recent editors and critical works, this thesis will be approaching Donne's work in exactly the chronological fashion that older critics have tended to shun.

John Carey has been a key figure in establishing this methodology. In conjunction with his work editing Milton's shorter poems, Carey has also shown a willingness and belief in following a similar chronological pattern of study within Donne's works. The first notable instance of this can be found within *John Donne: Life, Mind and Art*. Aside from having long been considered a seminal work in Donne studies, this study shows Carey to be using a chronological methodology to trace continuities throughout Donne's poetry. Carey established that, whilst the context that Donne worked and lived in may have changed, there was an essential stability and recycling of images throughout his career. Carey's work also opens with an account of Donne's life, which again firmly indicates a desire to associate Donne's poetic development with his progression through life. Although some of Carey's

however, Carey's edition has proved to be the most influential (especially following the substantial revisions it received in 1997). All of these chronological editions are of course preceded by David Masson's three-volume edition of 1890 which employed a chronological methodology, though this did so not for the benefit of those studying the poems, but did so rather as it allowed all of the critical materials within that edition to be contained in the third volume leaving the first two containing only Milton's poetry.

readings have found opposition, and this thesis too differs in approach to many of Carey's understandings, methodologically this work represents a significant landmark in the field of Donne studies. Carey returned to the idea of approaching Donne chronologically in his edition of Donne's *Major Works*.⁹ Here he attempted to produce a chronological overview of the works, though he included the 'Songs and Sonnets' and the 'Epigrams' entered as groups owing to the difficulties associated with the dating of these works. To date, this is perhaps the fullest attempt to study Donne in chronological fashion (excluding the on-going *Variorum* project's attempts to define a chronology for Donne's works). Other editors have also attempted to approach Donne's work without relying solely upon genre, type, and other artificial divisions of his work. Helen Gardner's 1965 edition of Donne's *Elegies and the Songs and Sonnets*, unlike Carey, attempted to divide the 'Songs and Sonnets' into, if not a chronological order, then at least along chronological lines.¹⁰ Gardner divides the 'Songs' into those 'written before 1600 and the poems that [she believed] were written after 1602'.¹¹ Both of these editors act as precedents for my own approach.¹² Theresa DiPasquale's recent article on Donne's 'Epigrams' shows how this approach has continued into a more recent critic's work, as she builds a sequential study of the 'Epigrams' based upon the evidence of Gary Stringer's *Variorum* edition. The *Variorum* is continuing to increase the possibilities for accurate portrayals of the passage of Donne's work, allowing for critics to have confidence that any modern editorial sequential approach is based upon a sequence initiated by Donne.

⁹ J. Donne, *The Major Works*, ed. J. Carey (Oxford: OUP, 1990).

¹⁰ Admittedly, whilst Gardner attempts to divide the 'Songs and Sonnets' along chronological lines her production of various editions each detailing a particular type of Donne's poetry displays how embryonic the notion of following a simple chronology was at this point in time for Donne studies.

¹¹ J. Donne, *The Elegies and the Songs and Sonnets*, ed. H. Gardner (Oxford: Clarendon Press, 1965), p.xxv.

¹² These editors of Donne's works, and several others (listed in the bibliography), were consulted when considering the dating of Donne's works. The *Variorum* edition has invaluable textual dating material, and also vast cross-referencing of major editions of Donne's works but, owing to the project still being in progress, could not be relied upon in this thesis for providing justified dates for all of Donne's works.

Indeed, DiPasquale, referencing Gary Stringer's comments, notes that the findings of the *Variorum* editors:

force revision of the traditional view of Donne as a poet who composed his works on specific occasions for a specific audience and who, once he composed the poems, took no further interest in them. It is now clear that he must have kept copies and revisited, rethought, and revised the poems – the work of a deliberately conscious artist concerned about the body of his work.¹³

This standpoint further strengthens the value of studying the chronological progression of Donne's thought and poetry. Similarly, Carey believed that a chronological view of Donne's works 'allows a clear sense of Donne's development, as writer and thinker'.¹⁴

Alastair Fowler has suggested that as 'more than one of a short kind [the vast majority of Donne's poems could well be classified as 'short'] can be read or performed on a single occasion... they may aim at effects of variety or contrast with other items in a series'¹⁵ – and I subscribe both to this viewpoint and to the clear advantages that a chronological study offers when assessing groups of poems in this manner. I would also further the idea to suggest that the value of a chronological approach (more commonly a conservative approach, but as discussed, in the case of Donne rather more radical) is greater for a project such as this since it can be more successfully implemented within the remit of this thesis rather than in an edited volume. The issue for the editor is that organising the poems so as they follow in the order written is near impossible in the case of Donne (though far more possible in the case of Milton) given the sources now available to us,¹⁶ whereas this work will be investigating more general trends and the development of themes. It is simpler to instigate a loose chronology,

¹³ T. DiPasquale, 'Donne's Epigrams: A Sequential Reading', *Modern Philology*, 104:3 (February, 2007), 329-78, p.330.

¹⁴ J. Donne, *The Major Works*, p.xxxviii.

¹⁵ A. Fowler, *Kinds of Literature: An Introduction to the Theory of Genres and Modes* (Oxford: Clarendon Press, 1982), p.63.

¹⁶ Even the concept of the order in which poems were written is problematic, as this may refer, amongst other things, to the date when the poem's composition began, when it was first completed, or when a work was revised and no longer adapted by the poet.

and from this to reassess the progression of these writers' respective careers, their use of imagery, and the development of their poetic style.

This thesis, therefore, aims to further develop this emerging trend in Donne scholarship. We have seen how both Donne and Milton have scholarly legacies that have severely compartmentalised their works. In particular, the methodology of this thesis has seen a decreased significance for Donne's 'Songs and Sonnets' as well as his 'Holy Sonnets', however, his prose works (particularly *Ignatius His Conclave* and *Biathanatos*) feature prominently. This aspect of the thesis is not due to predetermined prejudices, but has been established through what the respective works offer to the study's remit. A similar situation has also arisen in the study of Milton's corpus. Whilst *Paradise Lost* has been studied extensively in this thesis, a significant amount of space has been afforded to exploring Milton's earlier poetry. Equally, the uses to which his *Commonplace Book* has been put in previous scholarship have been severely limited and this thesis aims to show that this is a significant oversight. The *Commonplace Book* can be considered an aide-mémoire that relates directly to Milton's accumulation of knowledge, or even as a device which enables the meditative recall of thoughts and responses to intellectual stimuli that had occurred many years previously, and yet it has primarily been used by scholarly commentators as a guide to recreating Milton's supposed 'bookshelf' rather than to understand his interaction with, and appreciation of, the knowledge his books contained. Within a chronological methodology the scholarly prejudices that have previously guided which works are considered most readily in need of study must be ignored. This methodology offers an egalitarian approach to both authors' works where relevance, not reputation, is what guides the importance of various texts within the thesis. Accordingly, the anatomised nature of the *Commonplace Book* (which contrasts strongly with Milton's written style in 'public' works) has proved vital in

approaching the author's treatment of the sciences and thematic concerns which this thesis explores.

It is crucial at this juncture to discuss exactly which 'aspects' of science this thesis will be exploring. Primarily, the sciences that are considered in this work are those of anatomical (and related medical) sciences, geographical sciences (incorporating cartography), and astronomical science. The interrelation of these three areas can be defined by considering each of these sciences to experience in the early modern period the first instances of empirically observed exploration of a terrain (be it the terrestrial world, celestial realm, or the human body) which in turn is disseminated en masse in a readily accessible printed medium. These sciences are amongst those most readily affected by technological advancements, and many of these advancements related to the ability of man to observe more fully, and more accurately, so as to further understand the respective fields to which scientists' attentions were drawn.

The links between advancements in technology and scientific literature are crucial to understanding the manner by which this thesis defines which 'aspects of science' it explores. As has been noted, it is the sciences most affected by technologies enabling an extension of human sight that have been studied. Further to this, however, by studying the effect of scientific literature the thesis also benefits from what may be termed 'literary' technologies. Mass publication and distribution thanks to printing developments make this period the first in which scientific knowledge was being transmitted to a significant readership outside of the scientific community. In essence, whilst technologies such as the telescope allowed scientists to see further, the mass publication and translation of scientific texts allowed an educated readership to see more of the work of scientists. This theme of 'new sight' continues throughout the thesis, as often the works of Donne and Milton are, when explaining areas of new science, discussing issues of which elements of their readership would have no

knowledge. Thus, Donne and Milton use various techniques to illuminate their meanings when introducing scientific knowledge to their readers. Notably within *Paradise Lost*, Milton employs techniques when discussing the unknown that directly relate what is unfamiliar to his readers to the everyday, so as to attempt to aid his reader's imaginations (p.256). Similarly, when discussing a tool such as the telescope, his descriptions mimic the device they depict. Donne also attempts to bring into his reader's sight places and concepts that neither he nor his readership would have personal experience of; such as the internal workings of their own bodies. His imaginative interpretation of scientific developments, coupled with brief but explicit references to scientific texts, highlight the need for his audience to be as imaginative in their attempts to understand the science portrayed as he is in his attempts to demonstrate scientific knowledge.

Of course, Donne and Milton were not merely using science for educative purposes, in many cases they used science to promote their own education rather than aid the learning of others, but the techniques they used to enable their readers to 'see' the areas of scientific theory that they discuss are themselves representative of the influence of science. Scientists had to trust the accuracy of their newly invented tools much as a poorly informed reader must trust the accuracy of an author's portrayal of the unknown. It is through this sequence of 'discoveries' and 'understandings' that this thesis aims to gain a key insight into the nature of knowledge transmission and of the fundamentals of early modern learning.

The distance between knowledge which can inspire creativity, and complete understanding (which would preclude it) is also a key factor in the decision to include only scientific theory as transmitted in scientific literature within this thesis. Donne and Milton were not scientists. They were not involved in the daily intellectual discussions of scientists. Rather, their view of the progress of science came via what they could learn from the publication of scientific theories. Thus, it is possible to determine both Donne and Milton to

have had only partial understandings of the scientific theories with which they were interacting. This incompleteness in their respective knowledges is key, since without this incompleteness their creative output relating to science would have been limited by perceived 'facts' and 'truth'. It would seem essential that for a creative, or poetic, image to be written there must be both a source of inspiration and a framework within which the image must be seen to 'work'. If Donne and Milton had been fully immersed in scientific knowledge the boundaries of the imaginative framework within which their scientific images were formed could have been hampered by what they knew to be 'fact'. A partial knowledge base enabled these two writers to be in a position of having enough knowledge to be inspired, and yet simultaneously not having so much learning as to limit their creativity.

A further note must be made with regards to the scientific literature which the thesis investigates. The literature explored is primarily that which was produced on the European mainland. The reasons for this can be traced back to the same reasoning that established the thesis's chronological methodology. This methodology is designed to promote texts according to their relevance to the thesis's remit, not according to the scholarly legacy they have accrued. The scientific literature which has been explored follows this same line of reasoning. Thus, whilst the absence of English scientists may seem unusual, when we consider the primary materials it is not so obtuse. Kepler may be the first major scientific figure to defend the works of Copernicus, but the first defence of *De Revolutionibus* in English was actually provided by Thomas Digges. An Englishman, Digges may appear to be a notable absence from the thesis. He not only defended Copernicus, but worked upon establishing the parallax of Tycho's new star and furthered the belief that the 'firmament' was not (as Aristotle had proposed) 'fixed'. However, if we return to Donne's reference to Kepler's new star the reason for Digges's reduced significance within this thesis becomes apparent. Donne completely ignores the works of Digges and Tycho, focusing instead upon

the (now) more widely celebrated Kepler. Furthermore, any discussion of the instability of the firmament is drawn from his reading of Kepler.

In a similar manner, William Gilbert's experiments with static electricity and magnetism (and his demonstrations of these phenomena) may make him a figure which one would expect to feature within this thesis. Yet, despite Gilbert's influence upon Kepler in devising a reason for the planets to stay in orbit about the Sun, and his significant position amongst the scientific communities of both Elizabeth and James's courts, his influence as a scientific author does not extend (in any significant fashion) to Donne and Milton.

Indeed, despite Digges having made (somewhat fantastical) claims that his father Leonard was the original inventor of the telescope, Milton does not reference him amongst the myriad of telescopic images within *Paradise Lost*. This is not Milton casting aspersions against Digges, Hans Lipperhey (the actual inventor of the telescope) receives no mention either. It is merely a demonstration of the fact that – as neither Donne nor Milton were scientific figures – their knowledge was incomplete, and based mainly around the most celebrated figures (and literary works) of the age, rather than their English counterparts. Therefore, the thesis has mirrored this fact in focusing primarily upon the most celebrated scientific figures and texts when considering which influences upon Donne and Milton's work should be explored.

In broad terms, the structure of the thesis attempts to discuss the influence of the sciences of the human body, followed by that of the celestial sciences, with terrestrial science touched upon between these two key areas of investigation. In relation to each of these areas, firstly Donne's works will be considered and then Milton's, allowing for comparative analysis of the two authors' works (in relation to specific scientific advances) and leaving the concluding chapter to reflect upon the thesis's overarching thematic concerns.

Beginning with the field of anatomy, the thesis explores the dichotomy of two authors with a fundamental interest in the science and physical workings of the body having two highly individual approaches to the same topos. Beginning with Donne, the thesis will demonstrate his almost obsessional interest in dividing, dissecting, and ‘exploring’ the various components of the human form. In many ways Donne conforms to what Jonathan Sawday has defined as a ‘blazoner’ of the human form,¹⁷ and the thesis explores the various facets of Donne’s dissectory practices through a concerted study of the ‘First Anniversary’, sermons, and *Devotions*.

The following chapter, exploring similarly anatomical interests in Milton’s canon, discusses his starkly contrasting approach to the human form. Whilst Donne divides the body, so that he may more closely examine the minutiae of the human form in graphic and extensive detail, Milton tends to present the body as a whole – finding no fascination in the mechanical nature of the workings of the individual components of the body. Rather, Milton’s approach to the body is far more ethereal. As we shall see, even during the scene from *Paradise Lost* in which a physical dissection of Adam takes place (when his rib is removed to create Eve), Milton shies away from the frailties, and potential ‘ugliness’, of the human form focussing instead upon the beauty of mankind’s involvement in a spiritual realm. This section concludes by drawing Donne’s approach into direct comparison with that of Milton. In many senses, Donne can be seen to take creative inspiration from the body. His sermons, discussing the nature of ‘Catholic tumours’ within the body of the Church, demonstrate the movement from discussions of bodily phenomena into areas of philosophical, and creative, rhetoric. Similarly, Donne’s dissection within the ‘First Anniversary’¹⁸ can be seen to take a fairly standard poetic form (a memorial created at the behest of a patron) and from his discussion of the dead body progresses into a succession of

¹⁷ Jonathan Sawday, *The Body Emblazoned* (London and New York: Routledge, 1995), pp.191, 201-3, 205-8.

¹⁸ Donne himself defined the poem as such.

prototypic scientific ideas covering themes as varied as proto-Kantian understandings of the humours in relation to personality and even proto-genetic understandings of the inheritance of physical traits. Milton's work, however, finds no such creativity in the human form, tending to regard the body as a barrier between himself and a more spiritual existence. Both *Samson Agonistes* and Milton's *Commonplace Book* demonstrate Milton's struggles with, not only his own body but those of others – notably women.¹⁹ The study of the *Commonplace Book* does, however, demonstrate an area in which Milton was more willing to be dissectory in his work. The *Commonplace Book* demonstrates a desire, and possibly even need, to attempt to understand the nature of knowledge by dissective means. In many senses, whilst Donne's creativity is drawn from his imagined dissections of the body, Milton's creativity can be seen as a by-product of his dissections of his own, extensive, knowledge (and personal understanding) of the world.

The thesis then moves on to discuss the influence of the terrestrial and celestial sciences upon Donne's and Milton's works. In its fourth and fifth chapters the thesis turns to an exploration of the influence of geographical and astronomical sciences in Donne's works. These two chapters have been divided along chronological lines at the year 1609 so as best to display the progression of Donne's thoughts on terrestrial and celestial matters. These chapters variously discuss Donne's metaphorical use of the Sun, his interest in Kepler, Donne's presentation of astronomical figures in *Ignatius His Conclave* and also offer an extended reading of the astronomical references within 'The First Anniversary'.

However, they also explore Donne's repeated interest in both the Indies (both East and West) and in America. Whilst it is relatively simple to define the 'Indies' for a modern reader, defining exactly what constitutes the East and West Indies within Donne's works is far more complicated. Donne envisions both areas as having certain shared attributes, such as

¹⁹ It would be remiss to ignore the fact that Milton was limited by his own body in that he became blind but, given that this topic has been thoroughly examined, this thesis will intrude upon the topic of Milton's blindness only when it is most relevant.

their richness and fertility, and also draws certain distinguishing features from each of them. However, he is not rigid in his application of these defining features, to the extent that ambiguity arises in certain of his references to the 'Indies'. Thus, this thesis has, as Donne seems to have, treated both the West and East Indies as a contiguous entity whereby both geographical locations are very similar locations both intellectually and imaginatively. The thesis only draws the two areas apart when Donne also does so explicitly. The moments when Donne does define a distinction between the two Indies have proven a key aspect to understanding the imaginative basis for Donne's representation of them.

It may sound out of place to discuss the 'Indies' as an imaginative construct within a thesis focussed upon studying the influence of scientific literature. However, the representations of the Indies, and the Americas, which Donne proffers are crucial to the overall aims of the thesis. When discussing astronomy it is readily understood by a modern reader that we are discussing a science. For the early modern reader this is not such a simple distinction to make. Astronomy (prior to the influence of Kepler) was not associated with physics, as it is today, but rather was considered as a branch of mathematics. The boundary between astronomy as a science and astronomy as an art was far more flexible. Geographical science was, at this point, in a similar situation. Both geography and astronomy relied upon the curiosity of 'explorers' to further the boundaries of human knowledge and to extend the reach of our understanding. It is no coincidence that Galileo made his astronomical discoveries through the telescope, when this device had originally been invented by Hans Lipperhey as a device for increasing our terrestrial vision.

The two fields of geography and astronomy were linked strongly enough (and indeed divided weakly enough) that further similarities also arise. Galileo named the moons of Jupiter the 'Medicean Stars' in honour of the Medici family²⁰ to whom he dedicated their

²⁰ Indeed these were originally the 'cosmica sideria' or Cosimo's stars after Cosimo II de' Medici.

discovery. In a similar fashion, Sir Walter Raleigh had earlier termed the Americas ‘Virginia’ in honour of his Queen.²¹ The similarities do not end within the sciences themselves, but are also apparent within the manner by which figures, such as Donne and Milton, were influenced by the literature that these sciences produced. Donne had no scientific experience of the stars other than what was to be gleaned from reading. He had, in his youth, done some travelling (as Milton also had), but had no experience of the world outside of Europe. Despite this, the knowledge gained from scientific literature was enough to inspire the creation of a myriad of poetic images based upon these empirical representations. It is worth noting that, with no practical experience of either the stars or of the Indies and Americas, Donne’s understanding of the knowledge that is transferred through scientific documents was reliant upon imaginative reaction to the respective intellectual stimuli. Indeed, as we will see, explorers who visited other continents often discussed their discoveries in relation to England. By drawing upon a common set of cultural doxa,²² the unknown still cannot become known but it can become imagined.²³ The exploration of the Indies and the Americas that this thesis engages in recognises the fundamental similarity between these geographical locations as constructs of Donne’s imagination and of the references to the astronomical bodies as imaginative responses to his reading. Chapter five also aims to draw attention to the various differences between Donne’s respective understandings of geographical and astronomical

²¹ A similar, but not identical, feature is also notable within the field of anatomy. Famously, the fallopian tubes were named after their discoverer, sixteenth century Italian anatomist Gabriele Falloppio. Similarly, Cowper’s gland (an exocrine gland at the base of the urethra) is named after William Cowper (1666-1709) who was amongst the first to describe it, the Eustachian tube in the ear is named after Bartolomeo Eustachi (1500 or 1514-1574) the Italian anatomist (and contemporary of Vesalius) who first described it, the external collagenous capsule covering the liver is named Glisson’s capsule after British physician Francis Glisson (1599-1677) and Italian doctor Marcello Malpighi’s (1628-1694) discovery of various components of the kidney and spleen are eponymously known as Malpighian corpuscles.

²² The definition of ‘doxa’ that I use throughout this thesis is taken from Lorna Hutson, *The Invention of Suspicion: Law and Mimesis in Shakespeare and Renaissance Drama* (Oxford: OUP, 2007), p.14, where Hutson refers to ‘doxa’ as being ‘the stereotypes of a particular culture’.

²³ As Milton would demonstrate in his representation of Galileo (p.244).

‘new worlds’ by juxtaposing studies of his references to both terrestrial and celestial ‘new worlds’.

The thesis next explores Milton’s use of astronomy. It investigates the more juvenile astronomical images of his younger poetry, exploring instances where these poems can be seen to prefigure the astronomical knowledge that is displayed most fully in *Paradise Lost*. The chapter also considers what is meant by ‘instrumentall science’ with the telescope considered separately because it is the singularly most important scientific device within Milton’s canon. The thesis then focuses most keenly upon Galileo and the relationship between the scientist, his tool and his findings within Milton’s work. The chapter aims to answer several questions that have frequently recurred within historical and literary criticism of Milton’s astronomy; namely whether or not he met Galileo, the main scientific source on which Milton bases the universe of *Paradise Lost*, and also approaches the topic of Galileo’s role as the only seventeenth century figure named within the poem. Finally, the thesis moves, via a further study of Milton’s *Commonplace Book*, to drawing some conclusions on Milton’s understanding of knowledge, truth and lying. This exploration, combined with the earlier study of the scientific background to the universe of *Paradise Lost* allow for questions of morality in the actions of scientists to be examined, ultimately attempting to display Milton’s personal beliefs relative to the conflicts between scientific and biblical astronomy that he highlights.

The thesis ends with a brief conclusion that seeks to illuminate the major points of comparison between Donne and Milton. Given that the relationship between the two throughout the thesis is often one based upon contrasts, this is key to understanding the purpose of studying the two in unison. Whilst both poets wrote at a significant chronological remove from each other and, often, took highly alternate approaches to the inclusion of scientific materials into their work, studying the two comparatively offers the potential for

new understandings of how knowledge itself was perceived in this period. Whilst Donne and Milton have different approaches to the scientific materials which they discuss in their canons, they do share a common interest in the interaction of science and art. This may be owing to the humanist system of education, but, fundamentally, the study of Donne and Milton demonstrates the intellectual eclecticism of the educated classes within the early modern period. Both take scientific knowledge, and scientific practices, and incorporate them into artistic works in a fashion that feels almost contemporary given the relative infancy of modern interdisciplinary study.

The refusal to accept restrictions based upon arbitrary distinctions between different branches of knowledge – and the implicit acknowledgement of their existence through the desire to contravene such limitations – is central to this study. Furthermore, as well as crossing intellectual boundaries so as to create a more rounded understanding of the landscape of early modern knowledge, the desire to transcend arbitrary chronological restraints is also key to this thesis's remit. In many senses, both of these ambitions are also central to the works of Donne and Milton. Donne's revelling in 'current' understanding, and Milton's more reserved respect for information that has grown to become 'accepted' clearly demonstrates that chronology was not a delimiting factor within the pair's work. When this information is juxtaposed with the eclecticism of their intellectual pursuits the thesis hopes, ultimately, to produce an understanding of Donne and Milton's use of scientific knowledge that shares its nature and methodology with those deployed by its subjects so as to give the truest possible understanding of the landscape of early modern intellectualism.

Chapter One: Anatomical and Medicinal Science in Donne's Works

The work of the Renaissance anatomist has been described as a 'passionate effort to get back to a solid unified truth [which] leads him to interrupt that totality and transform it into fragmented matter'.²⁴ In many senses, Donne's approach within his literary corpus mirrors this aim, and when we consider the etymological link between the words 'anatomy' and 'tome'²⁵ it is perhaps unsurprising that it is possible to term much of Donne's writing as dissective in its nature. David A. Hedrich Hirsch has noted how 'throughout much of his work Donne returns to this anatomical dissecting table, articulating in words the disarticulation of material decay, in an attempt to locate physical permanence and spiritual coherence',²⁶ and it is true that throughout Donne's work the functions, failings and minutiae of the human body play a key role. This chapter will focus upon the impact of 'bodily sciences' (mainly anatomical and medical science) and, also, of the practitioners of these sciences upon Donne's corpus. The frailty of the human form is a continually repeating trope within Donne's work and this forms a major aspect of this study. In particular, Donne's attempts to explore the human body often led him into a dissective mode, whereby the body is dismembered to allow closer inspection and understanding. Whilst, as we will see elsewhere (p.104), Milton focused upon the functioning of the body as a unified object with an inherent beauty, Donne had few qualms over focusing upon the diseased, corrupted and corroded elements of the human body.

²⁴ Devon L. Hodges, *Renaissance Fictions of Anatomy* (Amherst: University of Massachusetts Press, 1985), p.15.

²⁵ 'Tome' is derived from the Greek 'tomos', a section or part of a book, which itself is derived from 'temnein', a section or part cut off. 'Temnein' also provides the etymological root for the word 'atom'.

²⁶ David A. Hedrich Hirsch, 'Donne's Atomies and Anatomies: Deconstructed Bodies and the Resurrection of Atomic Theory', *Studies in English Literature 1500-1900*, 31:1 (Winter, 1991), 69-94, p.69.

It is with this in mind that the chapter begins with a study of ‘The First Anniversary’. Donne’s poem is quintessentially dissective in its approach to its subject matter (namely the ‘celebration’²⁷ of the anniversary of the death of Elizabeth Drury).²⁸ Therefore, this chapter will examine the various ‘dissections’ that are prevalent within the poem, discussing both dissections of the human body, the poetic form and the mind. It is whilst examining the mind that the chapter will turn its attention to Donne’s understanding of memorial functions and the unique ‘life-giving’ creativity that he ascribes to the human imagination.

Furthermore, it would be remiss to fail to acknowledge the extent of Donne’s humoural knowledge within ‘The First Anniversary’. Donne is detailed and explicit in his treatment of humoural theory – particularly in his treatment of purging (and crying as a form of purge for those who mourn the death of Drury). The medicinal understanding demonstrated within the poem is not, however, limited to merely Hippocratic and Galenic ideas. Donne also – through his treatment of the soul and alchemical imagery – opens a discourse on Paracelsian medicinal practice. The desire to mix ancient and more modern medicinal theory is one that we will return to in the *Devotions*, but it plays a key role in understanding Donne’s amalgamation, and presentation, of differing branches of knowledge within his works. Finally, this section will touch upon the tendency for Donne to have ideas which he cannot fully express. It is this tendency for prototypic thoughts that is most significant within ‘The First Anniversary’. Donne’s experimental approach to the convergence of different branches of knowledge leads him into experiencing thoughts which were impractical to his time, but, when similar thoughts occurred to others in the decades and

²⁷ Whilst Donne himself terms the poem a celebration, Dennis Quinn, ‘Donne’s Anniversaries as Celebration’ *Studies in English Literature 1500-1900*, 9:1 (Winter, 1969), 97-105, p.98, notes that ‘celebration is, however, a much broader activity than praise’ as it ‘involves commemoration’.

²⁸ Robbins edition of Donne’s complete poems suggests that this poem may actually have been produced for the ‘feast of St Elizabeth’s day on 5 Nov. rather than the anniversary of the girl’s death’, p.812.

centuries following his death, became highly significant to the advancement of human understanding.

Following this discussion, the chapter will then examine the images of poison, corrupted flesh and of healing within his sermons. Donne's comparison of the value of the Protestant Church, when compared with the Catholic Church, led him into ingenious variations of traditional 'body politic' imagery. He presents the 'body' of the nation as having a malevolent tumour, or poison, inside it and that 'poison' being synonymous with the Catholic Church.²⁹ He also presents the 'body' of the Catholic Church as diseased and rotting, with the Protestant Church as being a 'positive' tumour, or growth, within it. Using a combination of medicinal and alchemical imagery, Donne provides both images of the Catholic Church as a corrupting and life endangering substance and also of the Protestant Church as being akin to the elixir of life. Through the bombast and rhetoric of his sermons, this chapter hopes to establish exactly how Donne incorporated medicinal, anatomical and alchemical science into his orations and the effects achieved by this conflation of different types of knowledge.

The chapter will conclude by exploring how Donne's approach to the body changed as he (and his own body) aged and became increasingly sickly. Through close analysis of his *Devotions Upon Emergent Occasions* the chapter will seek to define the inherently dissective nature of Donne's prose, and aim to define the manner by which he understands the role of man on Earth. This discussion will also examine Donne's representations of illness. This will cover both his own sickness and his understanding of the medicinal science of his period.

Furthermore, the chapter will examine the distinction Donne makes between mental and

²⁹ It is possible to discern an analogous 'tumour' in Milton's *Of Reformation*. The 'wen' Milton refers to is discussed at length by Roy Sellars, 'Milton's Wen', *Prose Studies: History, Theory, Criticism*, 19:3 (1996), 221-237. Annabel Patterson's interpretation of the 'wen' as being 'Milton's representation of the Anglican bishops in the House of Lords' in *Fables of Power: Aesopian Writing and Contemporary Political History* (Durham and London: Duke University Press, 1991), p.129, is perhaps the closest reading of the 'wen' to my own understanding of Donne's 'tumours' – with the image of the Catholic church replaced by an allusion to Anglican bishops in Milton's work.

physical illnesses. Whilst Donne acknowledges that the two forms of illness interact with each other – and have the potential to be causally inter-linked – the descriptions of mental illness, particularly of melancholy, that are found within the *Devotions* are unique within his canon.

‘The First Anniversary’

‘The First Anniversary’³⁰ is the poem that best demonstrates Donne’s intellectual eclecticism. The discussion below, and the corresponding section of the chapter on ‘Geographic, Cartographic, Navigational, and Astronomical Imagery in Donne’s post-1609 Works’ (p.170), will attempt to examine the multiplicity of Donne’s approach to condensing disparate branches of knowledge into a single, coherent, article. The following pages aim to explore the complexity of these scientific allusions.

The poem displays a variety of anatomical and medicinal concerns, with Donne at various points reflecting on the practice of dissection, the role of the mind relative to the body, the fertility and creativity of the mind (most notably in his description of memorial functions) and positing both the role of Aristotelian and Empedoclean elementalism, Hippocratic and Galenic humourism and the more modern alternative of Paracelsian medicinal practice. Indeed, it is the Paracelsian nature of some of Donne’s imagery that leads him to discuss the role of the soul in alchemical terms. Ultimately, Donne’s medicinal understanding can be seen to coalesce to an extent that the Paracelsian ‘cure-all’ becomes a part of Donne’s personal understanding of humoral doctrine.

What is most notable within the poem, however, is not Donne’s ability to negotiate established, ancient and modern scientific knowledge – rather it is the sense that his poem

³⁰ All references to Donne’s poetry within this thesis are taken from, John Donne, *The Complete Poems of John Donne*, ed. R. Robbins (London: Longman, 2010).

displays repeated instances of prototypic thought. In his treatment of the humours, Donne is not merely repeating the understanding of his forebears but actually pre-empts the Kantian philosophical model which followed him. It is not merely that Donne displays proto-Kantian thoughts since in some senses it could be suggested that his ideas represent proto-genetic understandings of the nature of hereditary traits. Clearly, Donne could have no *knowledge* of such things. However, not knowing does not prevent the possibility for the creative framework within which an idea is formulated existing in his imagination. Whilst, owing to a lack of semantic and lexical frameworks, and also owing to the impossibility of practical application (primarily owing to technological restraints), Donne is *avant la lettre* in his ideas – the ideas are impractical anyway since no response to them was actionable within his lifetime – there is a suggestion that Donne imagined an inherent internal unit of matter that was passed through a family. The inherited substances that Donne describes, to a modern reader, are inseparable from genetic materials.

The first notable scientific thoughts within the poem are those relating to the practice of dissection. We will see how Milton shies away from gore³¹ within his depictions of the body (p.116) but Donne displayed no similar compunction – even in a poem dedicated to the memory of a deceased child. In claiming:

Let no man say, the world itself being dead,
'Tis labour lost to have discoverèd
The world's infirmities, since there is none
Alive to study this dissection, (ll.63-6)

Donne defines his poem as a dissection. He has previously stated that he will 'try' since 'no man can make thee live' to learn from the 'anatomy' of the dead girl, and that this poem will

³¹ This is a trait that continues throughout the full of Milton's poetic career. This thesis will discuss more fully this detail in the dissection of Adam in *Paradise Lost* (see p.116 onwards), but even in his early poetry this is a notable feature. 'Upon the Circumcision' is a prominent example of this facet of Milton's poetry given that – despite ostensibly being a discussion of the first spilling of Christ's blood – he neglects to mention 'blood' until the poem's eleventh line. Indeed, even when Milton does discuss Christ's wounding he does so in order that he might make allusive references to the wounds of Christ upon the cross rather than fully explore the anatomical nature of these injuries.

be the dissection from whence he attempts to learn of the nature of the world and humanity's position within it.

Donne's dissection assumes the girl to be the world that she has departed from in death, hence the world itself being 'dead', and thus his 'dissection' is akin to the action of the explorer. He aims, therefore, to explore poetically and simultaneously dissect the 'world' both which the girl inhabited and which inhabited the girl. This imagery of the 'two worlds' of one human being (the two spheres of the internal and private, or external and public) are not unique to 'The First Anniversary', however, the dissective content of Donne's images are unusual within his poetic corpus.

The poem's structure is where the dissective nature of Donne's poem is at its most exposed. The poem is divided into pieces, each examining different aspects of Donne's interest in Drury. Following an introductory section explaining his thesis in the poem, Donne examines 'what the [public] world hath still' of the girl, followed by the sickness of the Earth, the shortness of life, and the separation of Earth and Heaven, before he attempts to conclude. That each section of Donne's poem is focused upon a singular, specialised, subject is inherently dissective in nature. In much the same fashion as the early anatomists, Donne divides the body of his poem into smaller sections to allow closer understanding, before placing this knowledge of the component parts together to form an understanding of the whole. In essence, Donne's poem aims to distil the various components of his subject, and then juxtaposes these concentrated studies. The effect of this is to convey a plethora of knowledge, understanding and creative thought in a relatively limited space. The reader is overwhelmed by the intensity of Donne's intellectual approach and this, in turn reflects Donne's desire to appear authoritative owing to his advanced level of understanding. Donne's dissective approach also continues in his separate treatments of the mind, body and soul. We will examine the body (and its diseased nature), and also the soul (with its spiritual

nature) later in this chapter, but we will first turn to Donne's understanding of the mind as presented within 'The First Anniversary'. Despite the girl now being 'shut in all day' (l.73) by death, Donne proposes that the 'twilight of her memory doth stay;' (l.74) indeed he suggests her 'ghost doth walk' (l.70), and that this:

from the carcass of the old world free,
Creates a new world, and new creatures be
Produced. The matter and the stuff of this
Her virtue, and the form our practice is: (ll.75-8)

Here, Donne suggests that the mind – and more importantly memorial function within the mind – is an entity which itself is capable of being subjected to a poetic dissection. He separates the memories of the dead individual from those that the living have of the dead, suggesting that an alternative life of the deceased is to be found in the memories of those who knew her. Moreover, Donne suggests that not only do these memories preserve the deceased, they also actively create new worlds based upon the deceased's attributes.³² The fertility within these images, whereby the mind once freed from the 'carcass' of the old world creates a 'new world' and 'new creatures be produced', also hints at the dualistic understanding of dissective practice that Donne repeatedly displays within the poem. The practice of anatomical science was to explore the bodies of the dead so that a better understanding of the human body could be gained for the benefit of the living – and this aspect of dissection is prevalent within Donne's images of the mind, and memories, of the deceased. That Donne toys with the idea of the deceased's 'memory', to explore both the memories of the deceased, and those relating to the girl, demonstrates the intricacy of Donne's 'dissection'. There is a

³² The linking of death with the fertility that this image suggests is not unique to this poem or Donne's canon. Indeed, Donne returns to the trope more expressly within the poem when he later states 'We kill ourselves to propagate our kind', noting that all creatures who reproduce sexually do so out of necessity caused by their own mortality. 'Farewell to Love' offers a further instance of physical love's relationship with death by noting that 'each such act, they say, Diminisheth the length of life a day' (ll.24-5) suggesting not only that reproduction only occurs in animals owing to their mortality but also that the individual's progression towards death is actively accelerated by sexual reproduction.

multiplicity of dualistic and binary conceptual understandings within Donne's poem and the early discussion of the mind showcases the metaphysical imagery that is to follow.

The sheer size of the worlds that Donne believes can be created from the memory of the girl is touched upon again when he suggests that 'our minds are cramped' (l.152), with the image implying that Donne believed the imaginative potential of the mind far outstrips the physical boundaries of the brain. Indeed, Donne reinforces this viewpoint by noting:

In mind and body both bedwarfèd us.
We seem ambitious Gods whole work t'undo:
Of nothing he made us, and we strive, too, (ll.154-6)

the creative potential of the mind 'bedwarfèd' the physical within these lines. Furthermore, Donne's acknowledgement of how 'ambitious' he imagines the creativity of the mind, and the memory, to be is both instructive and self-reverential. George Puttenham highlighted the etymological link between the poet and the creator and, in comparing his actions to those of God,³³ Donne uses this link with a self-aggrandising tone. However, he also implies his own understanding of the nature of imagination when noting that God made man of nothing and 'we strive' to do the same. Creation of worlds from nothing is only possible within the mind, and Donne's notion of striving implies that this is not only a natural pursuit but one that people actively participate in furthering. His poem's subject may be dead, and 'nothing', but this state can be redeemed through the life that Drury is given vicariously through the thoughts and imaginings of those who knew her. The creative manipulation of their memories of Drury are deemed to breathe a new life into her. Thus, the mind, and particularly the memory, is deemed fertile – and possibly as a place where the rules of mortality can be evaded.

Furthermore, through the action of dissection, Donne does not merely extend his own understanding; he also creates further understanding (and further objects to understand). By

³³ Puttenham notes the etymology of both 'poet' and 'poetry' when he states that 'our English name well conformes with the Greeke word: for of ποιέiv to make, they call a maker *Poeta*' in, George Puttenham, *The Arte of English Poesie*, ed. Gladys Doidge Wilcock and Alice Walker (Cambridge: University Press, 1936), p.3.

dividing the mind into separate portions, he simultaneously creates ‘new’ objects (the portions of the mind) which in turn are capable of being studied. Thus, through the dissection of Donne’s poem the act he describes is physically demonstrated. The memory (and memorialisation) of the deceased causes not only the creation of a new poem, but the dissective nature of the poem’s cyclical methodology forces the poem inherently to produce new understandings which are then subjected to their own dissective processes. In essence, the creation Donne describes within the imaginative recall of memories relating to the deceased is exemplified by the creative approach to memorialisation that Donne demonstrates in his poem.

A further notable thematic concern within ‘The First Anniversary’ is that relating more specifically to medical science. Broadly, Donne’s medical understanding within the poem relies upon his knowledge of the humours. Nancy Selleck has noted how ‘Galenic theory prevailed, [within Donne’s period] and, in fact, many of its practices persisted up through the nineteenth century’, even in the midst of being ‘challenged to some extent by Paracelsian medicine’.³⁴ Selleck also notes that, far from being what is commonly, and rather simplistically, perceived as a medicinal theory merely dependent upon the balancing of the humours (blood, phlegm, black bile and yellow bile), the development of humoral thinking was such that even ‘passions can change one's humoral balance, and conversely, changes in humoral balance (brought about, for instance, by food or air) will produce passions.’³⁵ This Galenic theory was dominant within the period to the extent that ‘by the late sixteenth century, the use of "humor" in reference to identity is common’³⁶ and, thus, owing to the individual being composed of their ‘environment, the humoral body suggests a material

³⁴ Nancy Selleck, ‘Donne’s Body’, *Studies in English Literature 1500-1900*, 41:1 (Winter, 2001), 149-174, p.169.

³⁵ *Ibid*, p.152.

³⁶ *Ibid*, p.153.

embeddedness of self and surround'.³⁷ Ultimately, Galenic theory does not merely dominate thinking about the working of the body, but the interaction of the individual and society (and the individual and their environment) – and the effects of this pattern of thinking, particularly in relation to Donne's suggestion that Drury is given a second life by the action of the memories of those who grieve her loss,³⁸ is evident throughout 'The First Anniversary'.³⁹

As Donne's poem largely conforms to the expectations of humoural doctrine, there is a notable concern with purging throughout the poem. As the *Devotions* reveal, Donne would – in later life – have personal experience of medicinal purging which would alter his own perception of the efficacy of medicinal practitioners. Within 'The First Anniversary', the death of the girl is met with the 'common bath of tears' (l.12) which 'drew the strongest vital spirits out;' (l.13) but Donne complicates this image by throwing into doubt:

Whether the world did lose, or gain in this
 (Because, since now no other way there is
 But goodness, to see her, whom all would see,
 All must endeavour to be good as she). (ll.15-8)

Donne's logic in this passage is intentionally perplexing. He questions whether the loss of the girl is in fact a loss, or whether the, now untarnishable, memory of her (being a memory of a figure of total purity) is in fact of more benefit to the world than had she lived. Donne's logic proceeds that, as we have a memory of perfection which can no longer be damaged, we are driven to improve ourselves to be comparable with this bastion of goodness – and that this state of goodness is now irrefutable and irrevocable which is in itself a positive action.

However, a second reading of this passage is also suggested by Donne's ambiguous use of

³⁷ Ibid, p.150.

³⁸ See Achsah Guibbory, 'John Donne and Memory as "The Art of Salvation"', *HLQ*, 43:4 (Autumn, 1980), 261-274 for further discussion of Donne's attempts to 'awaken' memory within the poem.

³⁹ For more on the prevalence of Galenism at this point, see Nancy G. Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (Chicago: University of Chicago Press, 1990); and Owsei Temkin, *Galenism: Rise and Decline of a Medical Philosophy* (Ithaca and London: Cornell University Press, 1973).

‘lose’. It would appear that he refers to the loss of the poem’s subject (and the gaining of an unimpeachable virtue through this loss), however, this also makes reference to the loss of the tears and ‘strongest vital spirits’ through the action of crying he has previously described. The act of crying is a purging of, not only the emotions, but of ‘vital spirits’ and therefore is an action that affects the humours of those crying. Whilst Donne’s suggestion that in the loss of a life we gain a posthumous image of the dead that far supersedes the reality of their existence is not a particularly comforting image to those who mourn this loss – to suggest that tears have a medicinal value in correcting the state of the mourners at least offers the suggestion that their suffering has a purpose as well as a cause.

The logical, and semantically based, argument that Donne proposes for the positive actions caused by death is not, it would seem, as significant as the implication that the tears for the deceased are not a loss – but rather a necessary action to regain health. Thus, Donne’s understanding of the humours is that they are not merely a physical, medicinal, feature but that they also affect the emotional states. Therefore, Donne’s questioning the nature of both of these losses implies that, not only does the world’s morality have the opportunity to be improved by this death, but that psychologically mourners are better to release their grief than to withhold it – which implies a proto-Kantian understanding of how the humours might affect personality.⁴⁰

Whilst Donne implies the value of crying (in order that the humours might be balanced), he also warns against the danger of excessive mourning. Having demonstrated ‘how dry a cinder this world is’ (l.428) he concludes that:

’tis in vain to dew or mollify
 It with thy tears, or sweat, or blood: nothing
 Is worth our travail, grief, or perishing,
 But those rich joys which did possess her heart,

⁴⁰ See, Immanuel Kant, *Observations on the Feeling of the Beautiful and Sublime*, trans. John T. Goldthwait (Berkeley and Los Angeles: University of California Press, 1960). See especially pp.51-75, where Kant discusses the impact of the four temperaments upon the personalities of individuals and their likely reactions to certain experiences.

Of which she's now partaker and a part. (ll.430-4)

Here, Donne notes that attempting to fix the world through exertion – and particularly through exertions which can be measured in bodily fluids – is foolhardy. Having stated there to be a benefit in mourning, and purging the body of sadness following a death, he now warns against this expanding into attempts to rectify what is wrong with the world. Through this warning, Donne once again reveals his awareness of the correct application of medical practice. Purging is seen as positive when it is necessary, but harmful when inappropriately applied. This passage also demonstrates that Donne's belief in the humours is total – as he warns, as Galen does, against excess in all forms (which includes excessive purging of humours as much as it does containing an excess of humoral fluids).

Donne's humourism is also apparent in his treatment of the world's poisons. He notes how:

That this world's gen'ral sickness doth not lie
In any humour or one certain part,
But as thou saw'st it rotten at the heart,
Thou seest a hectic fever hath got hold
Of the whole substance, not to be controlled,
And that thou hast but one way not t'admit
The world's infection: to be none of it.
For the world's subtlest, immaterial parts
Feel this consuming wound and age's darts,
For the worlds beauty is decayed or gone –
Beauty, that's colour and proportiōn. (ll.240-50)

The alchemical tone of the 'subtle immaterial parts' and also of 'proportiōn' is discussed elsewhere in this chapter (p.32), as is the dissective nature of Donne's interest in proportions, however, the holistic approach to diagnosing the world's 'general sickness' is key to our understanding of how Donne applies the theory of the humours within 'The First Anniversary'. He notes how it is not any single humour or even 'one certain part' of the 'body' of the world which is sick, but rather that a 'hectic fever hath got hold of the whole substance'. Donne combines the effects of 'sickness', 'fever', 'infection', wounding and

decay seeing them as symptoms of an holistic failing rather than of individual injuries. As such, the dissection that Donne has attempted throughout his poem is problematised.

Donne's dissection has attempted to divide the elements of both the characters within the world, and the character of the anthropomorphised world so as to examine the minutiae of the body, in much the same manner as renaissance anatomists did in their treatment of cadavers. However, he now concedes that all his dissection has revealed is a confirmation of Galenic theory. The sicknesses of the individual parts are all intrinsically linked and the dissective approach has merely diagnosed the need for an holistic solution (a solution which it seems unlikely will be forthcoming). Thus, we are left to conclude that Donne ultimately demonstrates the futility of both ancient and modern science in solving the world's problems. The bleakness of Donne's conclusion on the chances of the world being healed of its sickness ultimately matches the bleakness that those mourning the anniversary of the girl's death would feel.

Donne's counterpoints these reflections on poison, corruption and the humours within 'The First Anniversary' with his treatment of the soul. It is the 'rich soul' (l.1) which flies to heaven – in a reflection of Lucretian Atomic theory – upon the body failing, decaying and dying. Indeed, in these opening lines death is seen as positive in that it liberates the 'inmate soul' (l.6). However, the interaction of the diseased and dying body with the liberation of the soul is also offered a second perspective when Donne suggests that, though Drury's family mourn her loss, the reason their sadness cannot be 'cured' is that the 'intrinsic balm' (l.57) capable of curing the sickness was Drury herself. Indeed, given this situation the mourners find themselves in and the fact that the girl cannot be brought back to life because her soul is

no longer with her body⁴¹ it becomes clear that the soul is, within Donne's image, connatural to the 'intrinsic balm'.

The nature of the balm is related to the manner by which Drury is also compared to the purity attained through alchemical procedures. The girl is considered to have 'so pure a mind' (l.178) and to have been so 'refined' (l.177) as to cleanse the nature of what Donne terms 'the weaker sex' (l.179). The notion of purity, and refinement, clearly relates to the process by which baser metals were deemed to be improved by becoming closer to gold and that she could drive out 'the pois'nous tincture' and 'stain of Eve' (l.180) further extends the description of the purity the girl is deemed to possess. Indeed, she is so pure as to purify the rest of her sex – cleansing them of Original Sin. However, these images are also a forerunner of the 'true religious alchemy' (l.182) Donne would explore more fully later in his sermons. The original sin of Eve is deemed to have been cleansed by the girl's virtue, much as the *balsamum naturale* would later be seen as intrinsic in the process of healing by the physical and spiritual body (see p.37).

The linking of alchemy, the deceased and health continues when Donne discusses the idea of 'proportion' within the world. In addition to the humourism alluded to by the notion of 'proportion', Donne displays a breadth of scientific knowledges that rely in some fashion upon linguistic variations within the idea of 'proportion'. He makes allusions to the balancing of humours to 'proportion' as essential to beauty (l.250), the idea of 'proportion' within the colours of a 'rainbow' (l.352) and (through mentions of how 'gold falls sick being stung with Mercury'⁴² (l.345)) to alchemical practice. Donne refers further to the corruption of gold, as it

⁴¹ Donne ends his poem by stating 'Heaven keeps souls, the grave keeps bodies' in a frank and unyielding reconfirmation of this fact (ll.473-4).

⁴² Mercury and gold, owing to their plasticity, were key components in the practice of alchemy. Gold was the desired end point of alchemical refinement. Mercury, being liquid when at room temperature, was deemed an unusual and changeable metal causing alchemist's to hope that the 'changeable' nature of mercury would in turn cause other metals to become more easily transformed.

‘falls sick’, also suggests the fallibility of scientific approaches. Since he is writing an elegy for a dead girl, and the poem was written at a time when the humours were fundamental to medical science, clearly imbalance is an appropriate topic for Donne’s poem. However, Donne goes further in his descriptions of ‘proportion’. By combining the inherently Galenic notion of proportion bringing about health, with the inherently Paracelsian notion of proportionality guiding alchemical experimentation, Donne draws together the notions of humoral and Paracelsian medicines. When we consider Donne’s attempt to imply that the soul has curative properties, it becomes clear that, within ‘The First Anniversary’, the soul is the alchemical quintessence. Given that Donne spends much of his poem in the guise of the anatomist, dissecting the decaying body so as to further his understanding, what we are now presented with is an explicit attempt at understanding a part of the human form that cannot be dissected. By defining the soul as the alchemical quintessence, the ‘intrinsic balm’ or the elixir of life, Donne creates a composite of ancient and more modern medicinal theories. The physical body has been examined and dissected – and this is seen to obey humoral laws (with the body relating strictly to the external world, and the world being equally relatable to the body, as we earlier noted Selleck to have proposed). When Donne turns his attention to the soul, the fact that it is missing is seen as crucial to the extinguishing of life. Without the alchemical quintessence that the soul provides the body, reliant upon the workings of the humours, is inanimate.⁴³ It is telling that Donne would choose to inter-relate, but also interlink, two competing areas of knowledge – particularly given the penchant he displays for ‘new’ knowledge being authoritative (see p.141) – and this idea arises further in the

Devotions.

⁴³ At this point, the soul was determined to be that which caused man to move (the image occurs again in discussions of how Copernicus gave movement to the Earth. Donne’s theorising also solves the difficulty that anatomists had with being unable physically to locate the soul – as anatomists study the body after death they will never find a soul as the exiting of the soul is the ultimate cause of all deaths.

The notion of 'proportion' also holds a final significance within 'The First Anniversary'. Donne describes 'Beauty, that's colour and proportion' (l.250) in the motions of the planets⁴⁴ as the opening of his section subtitled in the earliest editions of the poem as the 'Disformity of Parts'.⁴⁵ He continues to discuss the moon's surface in human terms – as having 'warts and pockholes' (l.300) – and further notes that 'the world's proportion disfigured is' (l.302). Indeed, he even goes so far as to discuss how 'beauty's best, proportion, is dead' (l.306). On one level, this is a reflection upon how new knowledge of astronomy has complicated – and made ugly – the way we understand the heavens in relation to the Earth. However, the linking of the world and the individual (both through the failed 'proportion' of the world and of humans which is presented here and the repeated links between the two made elsewhere in the poem) suggests that humans suffer from a similar failing of their proportions. The reference to the failure of beauty, particularly given it is said to have died, suggests that – in particular – Elizabeth Drury suffered from failed proportions. Notably, the proportions Donne is discussing are bodily (rather than humoral) – he notes pock marks and warts as well as 'those two legs' (l.303) as physical disfigurements.⁴⁶ Thus, there is the suggestion that failure of both the world's, and more specifically Elizabeth Drury's, anatomy is due to failed physical proportions. If failure of the anatomy is deemed relatable to anatomical disproportionality, rather than imbalance within the proportions of the humours, then, the poem displays a proto-scientific appreciation of the necessity for the parts of the body to work symbiotically. This understanding is one that is not dependent upon

⁴⁴ For further discussion of the astronomical science within 'The First Anniversary' see p.192.

⁴⁵ The subheadings in Donne's poem are in themselves indicative of the dissective nature of the poem as the work is divided according to purpose much as a cadaver has portions of different purpose removed and displayed separately from the rest of the body. Harold Love, 'The Argument of Donne's First Anniversary', *Modern Philology*, 64:2 (November, 1966), 125-131, p.127, highlights how the divisions are also representative of the 'oratio iudicialis' of classical rhetoricians.

⁴⁶ The two legs Donne discusses (which are both representative of the World and Drury owing to the extended metaphor comparing the two) – explicitly termed reward and punishment – are disfigured as they are 'bent awry' (l.304).

humourism, but, rather, is dependent upon the unchangeable nature of the individual human body. Donne's description of a 'sickness without remedy' (l.44) furthers this. The image can be seen to suggest diseases to which a cure is not known, but equally this is suggestive of diseases to which there is no cure as they are inherent to, and indivisible from, the individual – or as we would know them today, genetically inherited diseases. It would be foolish to suggest that Donne is a geneticist in his writings, but he displays (admittedly in a fashion that is *avant la lettre* owing to the age in which he lived) the same thought patterns and structures that future geneticists would use to describe the chemical nature of both the genetic inheritance of, and genetically inherent, traits.⁴⁷ Donne ascribes such worth to the 'proportions' of the deceased's body, that he appears to suggest inherent defects within the girl's form (which today would be understood as genetic defects within the girl's DNA) which are independent of the sicknesses assumed to be reliant upon a healthy balance of the four humours, or of the cures possible through Paracelsian means.

'The First Anniversary', therefore, covers a wealth of anatomical, medical, and medicinal practices and knowledge. The inherently anatomical nature of the poem leads Donne to explore not only the body of Elizabeth Drury, but equally the body of his own knowledge. Through the careful separation of the body and soul, and close examination of the various understandings he had gained of the workings of both these elements, Donne creates a rich tapestry of intellectual imagery. Indeed, the knowledge Donne displays can be seen as being dissected in the same fashion as the body Donne's poem originally subjects to poetic

⁴⁷ Kiernan Ryan, *Shakespeare* (London: Harvester Wheatsheaf, 1989), pp.10-11, notes how, in his case discussions of Shakespeare, should not be open to 'whatever interpretive violence seems expedient', but that we should equally not be complicit in 'burying [the plays] in a historicist vault and forbidding them to speak in any but the ruling terms of their own time'. Ryan's views are, I feel, entirely applicable to my own approach in this case. As Ryan eloquently terms it; 'critical practice, where it does not dispense with the historical dimension altogether as unnecessary, as a linguistic illusion, or as incidental to some timeless theme... misconceives the nature of the literary text... [because] it fails to grasp that a text from the past is not a final product of its age, but a productive practice of both its moment and our own, always capable of intervening on quite different terms in the social process long after its first historical occasion and function have vanished.', p.13. Ryan is too strong in totally removing history from historical texts, but to acknowledge the ability to use ahistorical means to analyse these texts is a noteworthy pursuit.

dissection. Perhaps most significantly, however, this poem demonstrates, not only the desire flagrantly to display the breadth of his own knowledge, but also how Donne negotiated his own understanding of various branches of scientific thought. The amalgamation of Paracelsian and Galenic theory shows the actions of an educated, but non-expert, man attempting logically to reconcile knowledge which is directly relatable, but neither directly agrees or disagrees with each other. The proto-genetic thoughts that guide Donne's descriptions of proportion are, therefore, the logical conclusion of this process of combining the scientific understandings that pervaded Donne's imagination. Donne draws together empirical scientific materials but goes further by applying scientific practice to his own thought processes. The practice of dissecting his own thoughts, and imagining the logical conclusions of these dissections, is what makes Donne's approach to the relation of complex, and seemingly disparate, knowledge truly unique.

Alchemical Tumours in Donne's Sermons.

The anatomical and medicinal references of Donne's sermons are perhaps the most unusual of all of Donne's scientific images. Donne's sermons are renowned for their eclecticism, but despite this the presence of alchemical and medicinal imagery can appear somewhat obtuse. However, if we consider that in a sermon preached at Lincoln's Inn, Donne defines 'true and proper use of *physick*' as that which aims 'to *preserve* health, and, but by accident to restore it'.⁴⁸ Donne establishes that the truest and 'proper' practice of 'physick' promotes prevention

⁴⁸ *Sermons*, vol.2, p.76. All references to Donne's sermons within this thesis are taken from, J. Donne, *Sermons*, ed. G. Potter and E. Simpson (Berkeley: University of California, 1953-62).

over cure.⁴⁹ He then, in a description of *balsamum naturale*,⁵⁰ taken from a sermon ‘Preached upon Whitsunday [conjecturally assigned to 1624]’, declares it:

A naturall Balsamum, which, if any wound or hurt which that creature hath received, be kept clean from extrinsique putrefaction, will heale of it self. We are so far from that naturall Balsamum, as that we have a naturall poyson in us, Originall sin.⁵¹

Initially it would seem by Donne’s definition that the *balsamum naturale* is a cure-all, as it may heal any ‘wound or hurt’, which would place the role of alchemy as secondary in importance to that of ‘proper’ medicine. If a practice can cure any wounds, logically, the wounds must first be inflicted in order for the practice to be applicable and this would counteract the desire to prevent illness that Donne cites as the primary action of the medical profession. However, Donne also states that humanity once was in a state whereby we were closer to this *balsamum*. Following the Fall of Man he considers humanity to have been distanced from this balm so as to become subject to a ‘naturall poyson’ in the form of ‘Originall sin’. Thus, whilst the definition of the *balsamum* may make it appear a cure, Donne’s suggestion of how by moving away from it we have become poisoned by sin suggests that it also had a preventative nature. Thus, Donne reconciles the unusual juxtapositioning of medical and alchemical sciences within his work by invoking a religious context for the illnesses that are being metaphorically ‘treated’.⁵²

⁴⁹ Donne’s use of ‘by accident’ can be misleading. Whilst in modern usage the word almost exclusively refers to unintentional actions that are beyond the control of those to whom they occur, in this period ‘accident’ is the English form of *per accidens* which the *OED* suggests as meaning ‘by virtue of some incidental or non-essential circumstance’. Thus, his use of ‘accident’ acts to contrast underlying disease (the essence) with its symptoms (or ‘accidents’). Essentially, Donne is proposing that health should be restored via treatment of a disease’s symptoms. He does, however, establish the primacy of preserving health over regaining it by giving ‘preserve’ emphatic position over treatment in his argument.

⁵⁰ The life giving and preserving fluid supposed to be drawn by alchemists from the philosopher’s stone. Winfried Schleiner, *The Imagery of Donne’s Sermons* (Rhode Island: Brown University Press, 1970), p.77, notes how ‘according to Paracelsus [this balm] was contained in every living body and worked as an antidote for all poisons’.

⁵¹ *Sermons*, vol.6, p.116.

⁵² Alchemy within this period is, of course, not merely the practice of transmuting metals into gold (or the pursuit of the philosopher’s stone) but a catchall for any early chemistry. Were Donne discussing other areas of chemical science, which he clearly is not as the explicit references to the *balsamum naturale* demonstrates, the

Perhaps the most significant instance of Donne uniting alchemical and medicinal science within his sermons is to be found in the ‘Second Sermon on Ezek. 34.19 Preached at White-Hall’. In this sermon, Donne attempts to answer the rhetorically posed criticisms of Catholic opponents by way of an extended metaphor expressing the diseased nature of the Catholic church. He begins by stating that:

God bring[s] together, living stones, men that had no relation, no correspondence, no intelligence together,⁵³

and claims that he brings these people together through the ‘Mysticall body’ of ‘his visible Church’. The uniting of people seems fundamental to Donne’s conception of the Church as God intended it when he further states that:

He that lies buried, in the consecrated dust under your feet, knowes not who lies next to him; but one Trumpet at last shall raise them both together, and show them to one another, and joyn them, (by God’s grace) in the Triumphant Church.

However, despite opening his argument with reflections upon the inclusive nature of the church in its divine conception, Donne rapidly moves towards a discussion of the separation of the Catholic and Protestant Churches. The first question he poses himself, ‘*Where was your Church before Luther?*’,⁵⁴ is then used to embark upon an extended medicinal and

linkage of alchemy and medicine would be more readily accessible and not need a shared religious context within which both subjects could be discussed. Ironically, alchemy also has a historical association with religious practice that, paradoxically, counteracts the use to which Donne puts it here. Pope John XXII considered the practice of alchemy, amongst religious practitioners, enough of a blight upon the church to issue a Papal Bull (1317), banning the clergy from participating in it. Since many alchemical textbooks were written in Latin, and a knowledge of Latin was essential to entering the priesthood, practicing alchemy did become notable amongst the clergy as a clerical sin (so much so that Chaucer’s *The Canon’s Yeoman’s Tale* centres on this subject). For Donne to position alchemical practice as being the opposite of sin (contrary to Catholic teaching) and, as we will later see, to define positively the Protestant Church as being alchemical in nature Donne must have been aware of this context in order to explicitly reverse the historical and Catholic cultural trends in his sermonising. Therefore, the alchemical references in his sermons, which expressly condemn the Catholic Church whilst favouring the Protestant Church, also share a meta-narrative which denies the value of Catholic teaching and knowledge. Thus, Donne not only damns the Catholic Church as an institution through his insults, but also in its practices and understanding of the world by redefining the knowledge they disseminated as false and inherently opposed to his own opinion. Donne is clearly openly aggressive in his use of invective against Catholicism, but that he went to the extent of subverting established Catholic images to create a subtler sub-narrative within this invective demonstrates the vehemence of his position.

⁵³ *Sermons*, vol.10, p.170.

⁵⁴ *Ibid.*

alchemical metaphor which unites all of Donne's responses to the action of separating the Churches.

In answer to this first question, Donne suggests that the Protestant Church was 'enwrapped, (though smothered) in theirs' and expresses this union as being akin to that of:

Balsamum naturale, which *Paracelsus* speaks of, that naturall *Balme* which is in every body, and would cure any wound, if that wound were kept clean, and recover any body, if that body were purged.⁵⁵

Thus, Donne not only implies the moral dirtiness of the Catholic Church (by noting the necessity for cleanliness in the healing process), but also establishes the role of his Church as being the elixir of life. Donne's image proposes that the Protestant Church has the same healing qualities as the *balsamum naturale* and, therefore, the Church can be deemed to be morally, spiritually, and physically healing. We have seen how the balm was considered to act against sin and, by making this comparison, Donne now suggests that the Protestant Church is capable of annulling the 'sin' of Catholicism.

Donne's image continues by suggesting that the balm has been 'purged' from the 'body' of the Catholic Church much as his own church was drawn from the body of the Catholic one for its own preservation. By Donne's earlier definition this establishes the Catholic Church as more sinful than the Protestant one, but this image of purging also introduces the concept of positive and negative medicinal practice that is demonstrated by his sermons. The 'purge' Donne praises is that which removes the Protestant Church from the diseased Catholic one (and as such is a positive, healing usage of medicinal practice) and yet, by performing this purge, Donne demonstrates the continued and exacerbated ill-health of the Catholic Church as occurring simultaneously. Medicinal procedure is, in this instance, seen to be capable of both positive and negative outcomes. This is a clear extension of his warning to those mourning Elizabeth Drury that the purging of tears can be useful, but in excess is

⁵⁵ Ibid, pp.170-171.

harmful. Donne now establishes that even in the correct measures medical practice can do as much harm to one party as it does good to another.

The second rhetorical question Donne poses himself, ‘why went they from us?’⁵⁶ is, seemingly, far more complicated to justify given that Donne has just termed the divine church as one which brings humanity together. He struggles primarily over the sacrament of baptism, stating that having been baptised by the Catholic Church is not an ‘impertinent [or] frivolous reason’ to question the division of the churches. Donne, therefore, once again resorts to the medicinal imagery of his first answer to strengthen his reasoning noting:

if I be content to stay with my friend in aguish aire,⁵⁷ will he take it ill, if I go when the plague comes? Or if I stay in town till 20 die of plague, shall it be lookd that I should stay when there die 1000? The infection grew hotter and hotter in *Rome*; and their *may*, came to a *must*, those things which were done before *de facto*, came at last to be articles of *Faith*, and *de jure*, must be beleevd and practised upon salvation. They chide us for going away, and they drove us away; If we abstained from communicating with their poysons, (being now prowen to that height) they excommunicated us; They gave us no room amongst them but the fire, and they were so forward to burne Heretiques, that they called it heresie, not to stay to be burnt.

The power of Donne’s invective in this sermon cannot be underestimated. In answer to this second self-posed question he once again resorts to medicinal imagery, but simultaneously evokes the largest epidemic in British history, thus, drawing upon his congregation’s emotions. It would be significantly complex logically to destroy this argument, but by resorting to an emotional invective Donne can appeal to ‘common-sense’ over religious piety or intellectual and theological concerns. The repetition of the symptoms of disease (the ‘aguish aire’, two mentions of ‘plague’ the heat of the Roman infection and finally the mention of ‘poyson’) serves only to further the vehemence of Donne’s repost. In this instance, Donne once more demonstrates his belief in the role of the ‘proper’ physician, as to

⁵⁶ Ibid.

⁵⁷ There are several possible meanings for this phrase. Conceivably, either Donne or the friend may be ‘in aguish aire’ – which could simply refer to an issue of poor temper. However, given the context of the line, and the notions of plague, it would seem most likely that Donne is referring to a physical malevolence within the air that his friend breathes (a miasma) that would be seen to be either causing, or a precursor to, the onset of plague.

prevent the spread of infection the removal of the Protestant Church was favourable to attempting to heal the Catholic Church by way of association and contact with the Protestant Church's supposed healing powers.

Thus, within this sermon Donne highlights, not only his understanding of the correct and proper way to practise medicine, but also the limitations and failings of medicine. Escaping the plague (be it that which decimated London or that which Donne perceived the Catholic Church to threaten his own with) was deemed the only viable option given the limitations of medicinal cures. Equally, we have seen how Donne is aware of (and fully accepts the moral justifications of) there being positive and negative outcomes to physiological practice. Perhaps most intriguing however, is that the presentation of the Protestant Church as being a positive balm within the human (or Catholic) body is ambiguous in its anatomical detail. Similarly to the renaissance understanding of the position of the soul Donne proposes a positive 'growth' within the body which is ruled by medicinal understanding – and yet is extra to anatomical knowledge. Furthermore, this growth is a positive and essential one, in stark contrast to the final medicinal image this section will explore.

In Donne's sermon 'Preached at a Christening' on the subject of Eph. 5:25-27,⁵⁸ he proposed that the Catholic church itself was a church with both 'spots', representative of our 'sinne', and 'wrinkles', the 'Testimonies of our age'.⁵⁹ His description also goes further, suggesting that the glory, and purity, of Christ has been 'eclipsed, and extinguished' by the Bishop of Rome. In essence, Donne presents the Catholic Church, not merely as a diseased form from which the Paracelsian medicine of *balsamum naturale* may be extracted in the figure of the Protestant Church, but as a disease in its own right. Catholicism is presented as the disease which 'extinguishes' the purity of Christ, forcing the necessity for the true church

⁵⁸ *Sermons*, vol.5, p.126.

⁵⁹ For further notable uses of 'spots' and 'wrinkles' to represent religious impurity see p.254.

to go on a ‘pilgrimage’ resulting in the establishing of the Protestant faith. Indeed, in a sermon ‘Preached at S. Dustanes upon Trinity-Sunday. 1627’ Donne again relates the image of the ‘Catholic disease’ stating that merely casting away ‘all such things as Rome had depraved’ was not enough. Rather Roman influence must be ‘purge[d] away’.⁶⁰ Thus, the reader of Donne’s sermons is ultimately left with a collection of medically based arguments legitimising the existence of the Protestant Church. Notably, Donne does not merely resort to viewing Protestantism as a positive (almost alchemical) extraction from within a corrupted body of the Catholic faith. Rather, Donne presents the Catholic Church as a corrupted body that is also actively corrupting. It is not merely diseased, whilst the Protestant Church is healthy, but is actively portrayed as being a disease – with the creation of the Protestant Church being a medically sound, and essential, measure against the malignant growth of Catholicism.

Anatomical and Medicinal Concerns in the *Devotions*.

Despite having a nature that is both ‘devotional and clinical at the same time, for Donne's readings in medicine, as in religion, ranged broadly’,⁶¹ his anatomical poetics are most fully developed within his *Devotions*.⁶² Clearly, given the work was written during his serious illness of 1623 and conveys the ‘shock... drastic jolt out of routine living, and a realization of one's perilous fragility in an unpredictable world’⁶³ that Donne found himself experiencing

⁶⁰ *Sermons*, vol.8, p.38.

⁶¹ Clara Lander, ‘A Dangerous Sickness which Turned to a Spotted Fever’, *Studies in English Literature 1500-1900*, 11:1 (Winter, 1971), 89-108, p.95.

⁶² All references to the *Devotions Upon Emergent Occasions* within this thesis are taken from, J. Donne, *Devotions Upon Emergent Occasions*, ed. Anthony Raspa (Montreal and London: McGill-Queen’s University Press, 1975).

⁶³ Reinhard H. Friederich, ‘Expanding and Contracting Space in Donne’s *Devotions*’, *ELH*, 45:1 (Spring, 1978), 18-32, p.18.

during this period, this is a work that is introverted in its approach to the body and, thus, offers us an unusually extravagant insight into how medicinal sciences had permeated Donne's way of viewing the role of the human body on Earth (and the continuation of the soul after death). Indeed, Donne's meticulous approach to the failure of his body and the progression of his illness means that the *Devotions* offer a dual narrative.

The first describes the role of mankind, but also the individual (and in some instances the 'inadequacy [Donne deemed] peculiar to himself')⁶⁴ within the world. By dissecting man's position on Earth Donne presents us with an image of the human body both *of* this world and *as* this world. Donne himself suggests that within the work he has 'cut up mine own *Anatomy*, dissected my selfe' and that his readership will '*read upon me*',⁶⁵ and this notion of 'reading' his body is at the forefront of the work. Donne not only demonstrates how physicians have 'read' his symptoms but also allows the reader to 'read' the body he explores on the page. The duality of readerships (both the physician as the figure pursuing empirical scientific measures and the reader of the text) causes Donne's incitement of 'they who have received my *Anatomy* of my selfe' to prescribe 'proper and convenient remedy'⁶⁶ implies not only the desire to see successful medicinal treatment, but also successful transference and understanding of the knowledge within his words. Indeed as we shall see, the act of transferring knowledge and then being able to act sufficiently upon this knowledge is key to Donne's thesis.

The second narrative is that of the life of diseases. Donne demonstrates the breadth of his medicinal and physiological knowledge and, we can infer from his descriptions of melancholy, also demonstrates his understanding of mental illness. Indeed, much as Donne

⁶⁴ John Stachniewski, 'John Donne: The Despair of the "Holy Sonnets"', *ELH*, 48:4 (Winter, 1981), 677-705, p.681.

⁶⁵ *Devotions*, pp.45-6.

⁶⁶ *Ibid*, p.47.

acts to dissect the human form so as best to understand its purpose, workings, and value, so Donne dissects disease. Within *Devotions* both his failing body and the virulent fever act as enemies to Donne's survival; and he seeks better to understand these twin opponents using the anatomical and scientific methodologies of his day.

The dissective nature of Donne's approach to understanding his, potentially fatal, illness is most apparent in his repeated attempts to separate the areas he wishes to explore from those he wishes to discard.⁶⁷ As early as the second meditation, Donne attempts to define the position of homo sapiens, as a species, upon Earth. He notes that '*Man... is the noblest part of the Earth*', but simultaneously (and paradoxically) states that man 'melts so away, as if he were a *statue*, not of *Earth*, but of *Snowe*'.⁶⁸ At once the contradiction that Donne highlights becomes a focal point of the process that Donne progresses through within his text. Man is of the Earth but simultaneously is not. The attempt best metaphorically to describe the nature of man – as snow-like in its 'naturalness' but also in its temporality – demonstrates the dissective practice at work. Donne notes a contradiction, but in order to progress the issue of man being 'of the Earth' must 'melt' away. It is as if the paradox of the seemingly 'eternal' Earth and exceedingly temporary nature of man are not so much reconciled by Donne, as the two conflicting elements of his understanding are separated with only the one part – that of the temporality of human existence – preserved for greater scrutiny. In essence, by 'anatomizing the representative body to the limits of material dissection' Donne preserved the immutable elements of the body – which in turn allowed for greater attention to be turned to the temporary, ever decaying, human flesh.⁶⁹

⁶⁷ See, Hedrich Hirsch 'Donne's Atomies and Anatomies' for a full discussion of the atomic theory that can be seen to underpin the dissective nature of the *Devotions*. He also notes how linguistic dissection of 'the very word "anatomy," ... might lead to an "atomy," or atom, the smallest piece of matter', p.69.

⁶⁸ *Devotions*, p.11.

⁶⁹ Hedrich Hirsch, p.71.

Whilst this demonstrates an attempt by Donne to divide the eternal from the temporal, distinctions such as these do not provide a wholly satisfactory answer to his paradox.⁷⁰ Donne continues isolating his subject matter from the material world within which it exists. The main problem Donne attempts to overcome is establishing the position of the soul – considered the eternal part of man – whilst exploring the mortality of the body. Given that the soul is a uniquely human trait, and as man's form is frequently linked – within Judeo-Christian religions – with the form of angels, Donne approaches the distinction between man and angels with a similarly ruthless and anatomically minded dexterity. Donne divides man from the angels – but simultaneously examines the similarity of the actions of the human soul and angels. Donne discusses how 'even *Angells* whose home is *Heaven* and who are winged too, yet had a *Ladder* to goe to *Heaven*, by steps'⁷¹ and in doing so acts simultaneously to dissect human experience from angelic whilst noting the inevitable similarity of purpose. Men and angels are divided because of where they live and also anatomically, owing to angels having wings. However, having made his division Donne notes that the progress of the soul (deemed, in neo-platonic fashion, to be an upward movement towards heaven) is as difficult a route for the soul as it is for angels. Thus, Donne manages simultaneously to divide terrestrial man from celestial angels and allow for the eternal existence of the soul owing to the soul's inherently angelic struggle towards heaven. Donne's paradox of the eternal soul and the mortal body is solved by dissecting the human form and – whilst discarding certain elements – noting the peculiarities of those elements he wishes to look beyond, which in turn enabled him to reconcile the temporal and the spiritual. Donne's pen acts as the anatomist's

⁷⁰ Full a fuller exploration of Donne's conceptual understanding of 'the eternal' see G.F. Waller, 'John Donne's Changing Attitudes to Time', *Studies in English Literature 1500-1900*, 14:1 (Winter, 1974), 79-89. John Carey, *Life, Mind and Art* (London: Faber, 1981), has also demonstrated that perhaps the most crucial foundation of Donne's thought is his conception of the passing of time, and the change it brings, is a seemingly inevitable unidirectional movement towards dissolution. Carey's opinion is also supported by Achsa Guibbory's suggestion that Donne's 'map of time' is marked by an obsessive downward falling into decay in *The Map of Time* (Urbana and Chicago: University of Illinois Press, 1986).

⁷¹ *Devotions*, p.11.

scalpel, preparing elements of the body for private, extended study without neglecting the portions removed merely because they do not form the subject matter of the task at hand.

It is not merely an attempt to define mankind's position, status and stature upon the world that preoccupies the dissective nature of the *Devotions*. Indeed, whilst the structure of the work (meditation followed by expostulation and prayer) is in itself an acknowledgement of how fundamental the separation of mankind's attributes is to Donne's thinking – with the meditations tending to focus upon the temporal nature of the (diseased) body and the expostulation focusing upon the eternal spiritual concern of the human soul – Donne spends a significantly larger amount of time focusing upon the 'natural' and Earthly components of body.⁷² As with his approach to separating the mortal and immortal elements of man, Donne once again approaches the mortal elements of the human body with a desire to blazon. When discussing the physical manifestation of his illness in the third meditation, Donne's description catalogues his ailments and their associated body parts. He notes experiencing a feeling akin to 'Strange fetters to the feete' and 'strange Manacles to the hands', suggesting that he felt imprisoned within his own body. Donne then goes further in attempting to understand why he feels as he does by noting:

⁷² The structure of the *Devotions* has received significant attention. The twenty-three days have been linked to 'the twenty-three day course of the disease' and are said to recall 'Psalm 23, "The Lord is my Shepherd"' by Lander, 'A Dangerous Sickness which Turned to a Spotted Fever', p.90. The tripartite division of each day has also been described by Lander as rotating internally 'on its own axis, the daily Meditation, Expostulation, and Prayer mirroring morning, afternoon, and evening behaviour of the typhus sufferer', p.89, and also as having 'three parts emblematic of the Trinity', p.93. It has also been suggested that this division 'signals a dependence on Donne's part on the principle of the three powers of the soul upon which all of the systems rest', making the tripartite division a reflection of the *meditative* quality of the work rather than the *sickness* being described in Thomas Morrissey, 'The Self and the Meditative Tradition in Donne's "Devotions"', *Notre Dame English Journal*, 13:1 (Fall, 1980), 29-49, p.32. Morrissey's position agrees with that of Martz that: 'Without expecting any hard and fast divisions, then, we should expect to find a formal meditation falling into three distinguishable portions, corresponding to the acts of memory, understanding, and will - portions which we might call composition, analysis, and colloquy', in Louis Martz, *The Poetry of Meditation* (New Haven and London: Yale University Press, 1962), p.38. The link between meditation and Donne's structural device has also been suggested to reflect 'Joseph Hall's description of the process of assent which occurs during religious meditation' by N.J.C. Andreason, 'Donne's "Devotions" and the Psychology of Assent', *Modern Philology*, 62:3 (February, 1965), 207-216, p.210. As Andreason notes Hall's system 'includes only two parts' his position is, however, somewhat less convincing than that proposed by Martz and Morrissey.

when the feete, and handes are bound so much the faster, by how much the coards are slacker; So much the lesse able to doe their Offices, by how much more the Sinnewes and Ligaments are the looser.⁷³

It could be suggested that Donne's understanding of 'Sinnewes and Ligaments' demonstrates a form of butchery, but the medicinal and diagnostic context that Donne provides defines his approach as being anatomical. The workings of the body are, through such understandings, treated in purely mechanical terms with the sinews and ligaments represented by slack cords – but this in turn demonstrates the mind-set of the anatomist. Donne has, through his descriptions, noted a symptom of his illness and then using a mixture of anatomical dissection (by imagining what lies beneath the skin) and cultural doxa (such as understanding the mechanics of taut and slack ropes) has drawn a conclusion as to why his body is failing. Dedicated study of the individual components of the body allows him to draw conclusions on the reasons behind their mechanical failure. Given that his body feels as if fettered by manacles, Donne ultimately concludes that he 'must practise... lying in the *grave*, by lying still' – thus implying that he believed the gradual progress of the illness (and gradual degeneration of his body) as being an inherent part in the process of death.⁷⁴ Donne self-diagnoses based upon symptoms, uses anatomical and cultural methodologies to establish cause, and ultimately determines a prognosis based upon these factors.

The gradual investigation of the components of the body, accompanied by cultural comparisons drawn from personal experience, continues in the eleventh meditation. Donne states with authority that 'since the *Braine*, and *Liver*, and *Heart*, hold not a *Triumvirate* in Man' they have 'a *Soveraigntie* equally shed upon them all, for his *well-being*, as the foure *Elements* doe, for his very *being*'.⁷⁵ The shared sovereignty that these organs are determined

⁷³ *Devotions*, p.15.

⁷⁴ *Ibid*, p.16.

⁷⁵ *Ibid*, p.56.

to have is, in itself, a measure of Donne's understanding of the workings of the human body. That he compares this with elemental theory is even more intriguing. The theory of elements, and its derivative the theory of the humours, dominated the medicinal thinking of this time – and Donne's willingness to draw together expressly medicinal and anatomical understanding is significant.⁷⁶ By doing so, Donne implies that the work of anatomists is directly relatable to the theorising of ancient medical authorities. Thus, the work of anatomical pioneers, such as Vesalius, is drawn into being of direct consequence and benefit to the understanding developed by ancient figures – such as Galen, Aristotle, Lucretius and Empedocles. We are not presented with a revolution in medicinal sciences – with ancient understanding disparaged and replaced by the new (as we will see happen in the development of the new astronomy) but rather the two are presented as complementary. By avoiding competition between these two alternative elements of the same branch of knowledge Donne creates an intellectual environment in which symbiotic relationships can be deemed pre-eminent. Furthermore, the intellectual authority of Donne's statement on the significance of the heart, liver and brain is derived from respecting the knowledge of experts as it has accumulated over time. We will see instances in his early works, such as in *Biathanatos*, where Donne expressly relies upon the *newness* of his sources to determine his statements as authoritative and creates hierarchical frameworks in which 'new' knowledge is, by virtue of being unchallenged, deemed superior. However, in this instance Donne demonstrates an ability to coalesce seemingly disparate and discrete understandings. It is perhaps unsurprising – when we consider that one of the primary concerns of the work is to remove the incongruities of human mortality and the immortality of the soul – that Donne's work allows for seemingly

⁷⁶ Hedrich Hirsch notes that 'In contrast to atomism was Aristotle's theory of four elements (air, fire, earth, and water) of which all things are made, a concept earlier proposed by Empedocles', p.72. If we are to accept that Donne deploys both the ancient theory of atoms and that of the four elements it would seem sensible to suggest that his understanding of both theories is influenced by Lucretius's *De Rerum Natura* as Lucretius suggested that the system of Empedocles and Aristotle was possible – providing the four elements were in themselves 'atomic' in nature.

contradictory knowledges to co-exist in a fruitful fashion. That Donne's methodology for incorporating external, and expressly scientific, knowledge into his literature clearly changes by the time of this later work does, however, directly contradict the theory of consistency in Donne's images proposed by John Carey. Carey suggested that Donne's 'changeable, contradictory voice was ultimately a function of his personal character. It does not belong to the poetic surface, or to the manipulation of rhetorical figures, but to the man',⁷⁷ and it is now clear that the nature of Donne's images changes as well as the context of his life. Whether this is owing to Donne's illness, a new found maturity or that he is approaching medicinal sciences rather than astronomical ones is unclear, but what is certain is that the purpose, and motivations, behind the incorporation of scientific knowledge and imagery has changed. The combative and hierarchical power structures developed within *Biathanatos* are removed, and here replaced by a desire for symbiotic relationships. Indeed, Donne does not attempt to distinguish the authority of literary texts alongside scientific ones at this juncture either – he merely assumes that the two form separate, but entirely cooperative, branches within the breadth of human knowledge and experience.

Donne's acknowledgement that whilst he can, and indeed must, dissect the human condition within his work the existence of an inherent symbiotic relationship at work amongst those elements considered 'natural' is further apparent within the tenth meditation. He describes a situation which he entitles '*Natures nest of Boxes*' and from this discusses how:

The *Heavens* containe the *Earth*, the *Earth*, *Cities*, *Cities*, *Men*. And all these are *Concentrique*; the common *center* to them all, is *decay*, *ruine*;⁷⁸

⁷⁷ Carey, *Life, Mind and Art*, p.197.

⁷⁸ *Devotions*, p.51.

The 'concentrique' nature of these elements of the Earth is given context, much as the mortal element of the body was, through the mention of an immortal, non-decaying, presence in the form of light. Donne claims that:

light, which is the very emanation of the light of *God*, in which the *Saints* shall dwell, with which the *Saints* shall be appareld, only that bends not to this *Center*, to *Ruine*; that which was not made of *Nothing*, is not threatned with this annihilation.

Thus, a parallel can be drawn between the role the soul plays as the immortal part of man and the situation of light amongst the planets. The spiritual elements are considered eternal, but terrestrial substances are terminal. Therefore, there is an extent to which Donne anthropomorphises the world around mankind. Indeed, having positioned humanity amongst the bodies of the universe, and demonstrated the universe to have a similarly paradoxical nature that is mortal with immortal elements, he projects human illnesses upon the universe.

Donne notes that:

The *Heavens* have had their *Dropsie*, they drownd the world, and they shall have their *Fever*, and burn the world.

And goes further by suggesting that 'the *Dog-Starre* have a pestilent breath, an infectious exhalation', that there are '*Comets* and *blazing starres*, whose effects, or significations, no man can interrupt or frustrat' and his greatest concern seems to be that:

no man foresaw: no *Almanack* tells us, when a *blazing starre* will break out, the matter is carried up in secret; no *Astrologer* tels us when the effects will be accomplished, for thats a secret of a higher spheare, then the other; and that which is most *secret*, is most *dangerous*.⁷⁹

Thus, Donne superimposes human illness upon the heavens and in doing so creates a sense of uniformity between the existence of human life and that of the planets. All of 'nature' is seen to be progressing along a path of decay, some elements are more proactive in accelerating this process, but all continue towards destruction. Thanks to secrecy it is impossible for mankind to resist this process and, as such, there is no competition, or division, between

⁷⁹ Ibid, pp.51-2.

nature and mankind. Notably it is the lack of knowledge, from ‘Almanack’ or ‘astrologer’, which causes this situation. When we consider the harmonious juxtaposition of ancient and early modern scientific knowledge, and now this harmonious lack of knowledge – as the existence of an awareness regarding when these cataclysmic cosmic events would occur would inevitably cause human efforts to resist them – it becomes apparent that the younger Donne, who revelled in ‘unsolvable’ paradoxes and the disputes that these raise, has altered in his outlook somewhat. Rather than focusing upon the competition of two logically understandable situations that cannot simultaneously co-exist, Donne is, by this stage of his career working to reconcile them.

The symbiotic working of the world, even if it ultimately works towards decay – a topos with which Donne at times has been accused of having an ‘obsession’,⁸⁰ is furthered by his sudden shift from focusing upon the stars to focusing upon himself. We will see elsewhere that whilst anatomical, astronomical, and geographical sciences appear to be intrinsically separate within this period they are closely linked and Donne again demonstrates this in the final section of the tenth meditation. The secret danger posed by cosmic forces is mirrored by Donne’s ‘*pulse, the urine, the sweat, [which have] all have sworn to say nothing, to give no Indication of any dangerous sickness.*’⁸¹ Thus, we are given an insight into the nature of, not merely medicinal, but all empirical scientific observation within this period. Donne treats the observation of the pulse, and the examination of the urine and sweat as being standard practice, much as he took the observations of astrologers and the writers of almanacs to be commonplace. Therefore, a uniform methodology between various branches of knowledge is alluded to – as optical observation of minor details fuels both astronomical and anatomical advancements relating to far more significant areas of study, and Donne in

⁸⁰ Douglas Trevor, ‘John Donne and Scholarly Melancholy’, *Studies in English Literature 1500-1900*, 40:1 (Winter, 2000), 81-102, p.83.

⁸¹ *Devotions*, p.52.

turn has observed this scientific tendency to observe and applied this methodology to his own writing.

The anthropomorphic universe presented in the tenth meditation is in itself related to the far more prevalent desire to terrestrialise humanity. Donne imagines mankind as ‘*a little world*’ in meditation four⁸² and in doing so develops the extent to which he presents humanity and the Earth as co-natural. Despite noting, immediately after relating that man can be deemed a little world, that:

Man is *diminutive* to nothing. Man consists of more pieces, more parts, then the world; then the world doeth, nay then the world is.⁸³

Donne once again works around the paradox that he highlights, by listing mankind’s ‘pieces’ and relating them to the world in which they exist. He imagines:

If all the *Veines* in our bodies, were extented to *Rivers*, and all the *Sinewes*, to *vaines of Mines*, and all the *Muscles*, that lye upon one another, to *Hilles*, and all the *Bones* to *Quarries* of stones, and all the other pieces, to the proportion of those which correspond to them in the *world*, the *aire* would be too litle for this *Orbe* of Man to move in, the firmament would bee but enough for this *star*; for, as the whole world hath nothing, to which something in man doth not answere, so hath man many pieces, of which the whol world hath no representation.⁸⁴

Notably, Donne’s catalogue of the body, with its veins, sinews, muscles and bones, is a catalogue of the internal parts of the body. Thus, the dissective nature of the list becomes apparent as Donne takes what is hidden inside the body and exposes it through his words.

It is not merely the focus upon ‘pieces’ that interests Donne, but the focus on the body’s internal parts in this instance. Equally, he compares the hidden parts of man with the physical geography of the Earth’s surface. Therefore, not only does Donne open the body of man for examination and cataloguing, but he expressly emphasises the desire to see inside the body by determining the innards to be comparable with notable physical features of the

⁸² Ibid, p.19.

⁸³ Ibid.

⁸⁴ Ibid.

landscape (hills, rivers and quarries). He does not deem the inner workings of the body comparable to what may lie under the surface of the Earth but rather focuses upon the most noticeable elements of the Earth's terrain for his imagery. Equally, by suggesting that many of the pieces 'hath no representation', Donne acknowledges, once again, the potential for mankind to be 'unknowable'. We will see in later chapters (see p.255) that Milton uses the same techniques of knowledge transference that Donne optimises here – that of using cultural doxa, such as the features of the landscape, to express the nature of 'hidden' or unseen things, such as the body's internal organs – however, Milton does not focus upon the incompleteness of the knowledge of humanity.⁸⁵ The areas within the human body that have no obvious terrestrial counterpart are not expanded upon by Donne, possibly because he could not convey them to his readership with no extant and suitable analogous bodies, but the acknowledgement of their presence is in itself a further reference to the notion of incomplete, or missing knowledge.

Donne's interest in showing not only what is known but what is not yet known continues as meditation four develops. Donne, having discussed how dogs 'self-medicate' by eating grass to induce vomiting, suggests that:

Man hath not that *innate instinct*, to apply those naturall medicines to his present danger, as those inferior creatures have; he is not his owne *Apothecary*, his owne *Phisician*, as they are.⁸⁶

He goes further by also asking:

whats become of his soaring thoughts, his compassing thoughts, when himselfe brings himselfe to the ignorance, to the thoughtlessness of the *Grave*?

Before finally concluding that:

⁸⁵ Whilst Milton does recognise the incompleteness of human knowledge (particularly in areas relating to spiritual matters) he tends to focus upon intellectual 'certainties' when conveying knowledge (such as his discussion of established astronomical theory in *Paradise Lost*, see p.252). However, Donne is more willing, in this instance, to acknowledge the vast gaps not merely in human knowledge, but in humanity's self-knowledge.

⁸⁶ *Devotions*, p.20.

[A man's] *diseases* are his owne, but the *Phisician* is not; hee hath them at home, but hee must send for the Phisician.⁸⁷

Clearly, these remarks demonstrate that Donne was in some level of distress, and displaying a great deal of despondency, at the time of writing. However, he makes several incisive philosophical points. For all of mankind's 'greatness', and the superiority he has over the animals (as demonstrated later within meditation twelve) he is still inferior to them in his ability to understand the workings, and more importantly the failings, of his own body.⁸⁸ Equally, Donne finds himself questioning the purpose of human knowledge at all given that death is inevitable. The morose tone present in Donne's description of 'the thoughtlessness of the *Grave*' seems to contradict the regular attempts to demonstrate the breadth of his worldly knowledge that frequently arises throughout his writing. Indeed, such pessimism is explained by the reluctant acceptance that 'hee must send for the Phisician'. It is rare in Donne's writing that he cedes intellectual authority. His work is filled with demonstrations of his own knowledge and intellectual asides. However, here Donne does not even understand his own body and must rely on others. There is a rather helpless tone in Donne's acceptance of the limitations of his own knowledge but, moreover, these passages suggest that Donne's physical illness was also becoming a mental one.

It is not for this thesis to speculate on the nature of Donne's illness,⁸⁹ nor whether he was clinically depressed. However, Donne does begin to approach the topic of mental illness

⁸⁷ Ibid, p.21.

⁸⁸ This comparison between mankind's treatment of illness and that of dogs also highlights further Donne's inherently dissective approach within the text. However, in this instance rather than humankind's superiority separating them from the animals it is their inferiority that divides them.

⁸⁹ It is unnecessary to discuss further the topic of defining Donne's illness given the identification of it as typhus by Lander. This diagnosis is preceded by I.A. Shapiro, 'Walton and the Occasion of Donne's Devotions', *The Review of English Studies*, 9:33 (February, 1958), 18-22 declaring that Donne had 'evidently caught 'the spotted fever', p.18. However, Lander is particularly strong when determining the precise nature of the links between the shared properties of typhus and Donne's tone, notably 'the tendency to suicide, for example, and self-aborrence bred of moral and bodily spottedness, among other depressive manifestations.' She also notes the 'overall pattern of [Donne's illness] which, physically and neurologically, follows the pathogenesis of typhus', p.89.

within the fourth meditation. We have seen in ‘The First Anniversary’ that Donne lauded the positive creative power of the mind – in allowing his subject to continue ‘living’ into the future in the thoughts and memories of her past – and here he explores the negative side of the mind’s creative powers. Donne initially seems to have a positive view of the mind’s power in declaring that ‘My thoughts reach all, comprehend all’.⁹⁰ However, his tone immediately changes as he decries an:

Inexplicable mistery; I their *Creator* am in a close prison, in a sicke bed, any where, and any one of my *Creatures*, my *thoughts*, is with the *Sunne*, and beyond the *Sunne*, overtakes the *Sunne*, and overgoes the *Sunne* in one pace, one steppe, every where. And then as the other world produces *Serpents*, and *Vipers*, malignant, & venomous creatures, and *Wormes*, and *Caterpillars*, that endeavour to devoure that world which produces them, and *Monsters* compiled and complicated of divers parents, & kinds, so this world, our selves, produces all these in us, in producing *diseases*, & *sicknesses*, of all those sorts; venomous, and infectious diseases, feeding & consuming diseases, and manifold, and entangled diseases, made up of many several ones. And can the other world name so many *venimous*, so many consuming, so many monstrous creatures, as we can diseases, of all these kindes? O miserable abundance, O beggarly riches! how much doe wee lacke of having *remedies* for everie disease, when as yet we have not *names* for them?⁹¹

The irony Donne sees in being a prisoner to his body but having thoughts free to roam beyond the Sun once again reflects the sensation of being bound at the wrists and feet that we saw earlier. However, the freedom of the mind is corrupted by the ability to create monsters comparable with the ‘*Serpents*, and *Vipers*, malignant, & venomous creatures, and *Wormes*, and *Caterpillars*, that endeavour to devoure that world’ and worse produces ‘*diseases*, & *sicknesses*’. Indeed, Donne questions if the world can ‘name so many *venimous*, so many consuming, so many monstrous creatures, as we can diseases, of all these kindes’. Donne’s demonstration of the abilities of the mind, even when turned to malevolent uses, once again expresses his awe at the creative capacity of the mind. Moreover, Donne implies that the

⁹⁰ *Devotions*, p.20.

⁹¹ *Ibid.*

cause of disease is almost entirely the mind of man. Truly these are ‘mental’ illnesses, as they are illnesses born of the mind.

However, much as Donne sees a connatural bond between humanity being both *of* the Earth and simultaneously being representable *as* the Earth he demonstrates disease as being both created by and acting within the mind of man.⁹² He despairs in the ‘miserable... abundance’ and ‘how much do we lack’ in not even having names for the illnesses he sees the human body as producing. Therefore, the knowledge of disease creation that he demonstrates in turn causes him to bemoan the gaps in human knowledge. His small amount of medicinal understanding creates fear, and ‘melancholy’, as it exposes him to the fact there is so much he does not know – which may indeed be unknown to anyone, or even unknowable to anyone. The inability to cope with the ‘monsters’ of his mind in turn leads Donne to display traits that, in our own period, have been closely associated with mental illness.

That Donne seems to suffer from ‘melancholy’ is further strengthened by the allusions to mental illness that permeate the eighth meditation.⁹³ Here we see Donne claim that mankind is ‘the *Lord*, [and] the *proprietary*’ of his own misery. Donne even goes so far as to claim that misery is an inherent component of the human form as man was originally created of ‘*dust*, and coagulated and kneaded into earth, by *teares*,’ and, having established that ‘melancholy’ is inherent in the human condition he then questions whether ‘any misery equals to *sickness*’. In evidence against this he notes how we ‘have *Rheubarbe* to purge his *Choller*, lest he be too angry, and *Agarick* to purge his *flegme*, lest he be too drowsie;’ and quotes Tertullian in noting that, whilst alive, we live amidst ‘the *Apothecaries* shop’.⁹⁴

⁹² Lander has recorded how, ‘Hippocrates taught, individual variants, such as the patient's outlook, medical condition, temperament, training and habits, are modifying factors which often govern recovery’, and, thus, the medicinal link between mental state and physical well-being is well grounded, p.96.

⁹³ For a more overt diagnosis of Donne’s ‘self-professed depressive tendencies’, see Trevor, ‘John Donne and Scholarly Melancholy’, p.81.

⁹⁴ *Devotions*, p.41.

However, whilst Donne suggests that the experience of melancholy is a lesser ill than other illnesses he still turns to the ‘medicinal’ basis of the humours to establish this fact.⁹⁵ Whilst he may not express the seriousness of mental illness and melancholy directly, seeing it as less problematic than diseases of the body, he does inadvertently offer these diseases a credible status within his text. Mental illness is not ignored, nor is it deemed ‘non-medical’ merely because it is not as easily treatable with traditional means.⁹⁶ It would seem that once again Donne demonstrates prototypic understandings of how medicine, and medical treatment, would develop. However, here, rather than being *avant la lettre* as he was in alluding to genetic traits, Donne seems to be denying the severity of the mental component of his own illness. He describes what we would term depression, but rather than fully exploiting the vocabulary available within this period to him (by using the lexicon of ‘melancholy’) he shies away from the medicinal terms of his day.

Indeed, Donne continues to describe the experience of depression, or as he would have known it ‘melancholy’, but struggles accurately to term his illness. In both the eighth and thirteenth meditations Donne attempts to offer physical representations of ‘melancholy’. As with his describing diseases as though they were monsters (and the internal organs as if they were parts of the landscape) Donne does so to further demonstrate (and explicate) the situation he is referring to by relying upon analogies which will heighten the reader’s perception. Donne proposes that we ‘Let him [the individual] be a *world*, and him self will be the *land*, and *misery* the *sea*.’⁹⁷ Before, in the thirteenth meditation noting that:

Wee say, that the world is made of *sea*, & *land*, as though they were equal; but we know that ther is more *sea* in the *Western*, then in the *Eastern Hemisphere*: We say

⁹⁵ Amongst others, Selleck highlights ‘the fact that the body Donne invokes – explicitly and knowledgeably – is a humoral body’, p.149.

⁹⁶ Indeed, his mention of the use of rhubarb to treat choleric tempers is not couched in the language of mental illness, but to the modern reader can be understood in these terms.

⁹⁷ *Devotions*, p.40.

that the *Firmament* is full of *starres*; as though it were equally full; but we know, that there are more *stars* under the *Northerne*, then under the *Southern Pole*. Wee say, the *Elements* of man are *misery*, and *happinesse*, as though he had an equal proportion of both, and the dayes of man vicissitudinary, as though he had as many *good daies*, as *ill*, and that he livd under a perpetuall *Equinoctial*, *night*, and *day* equall, good and ill fortune in the same measure.⁹⁸

Once again, Donne draws together disparate knowledge to create authority (using geographical, astronomical and medicinal references) but in this instance the authority he establishes aims to promote the seriousness of his melancholy. He notes that there is an unbalanced amount of water, which he had previously associated with melancholy, between the eastern and western hemispheres to accentuate the imbalance between happiness and misery that he later defines. Donne also notes the Aristotelian notion of the firmament being ‘full’ (or as Aristotle terms it ‘immutable’) but suggests that this is, owing to the discovery of new stars, merely a turn of phrase. The truth of the situation of the stars in the heavens is not correctly represented in the manner it is commonly described. It is the combination of this fact, and the disproportionate amounts of water between the two hemi-spheres that Donne chooses to discuss in direct juxtaposition to noting the idea that a man has an ‘equal proportion’ of happiness and melancholy – with the suggestion being that to believe a man has ‘as many *good daies*, as *ill*’ is a misnomer. Donne is not explicit in his statement, but the implications of his tone are clear. We must infer that Donne is, in this instance, attempting to bring to his reader’s attention the situation of excessive melancholy but his words are timid about doing so. The opening of this meditation establishes a pattern of exposing falsehoods, where in common usage the truth is linguistically misrepresented, but shies away from offering a full representation of his own melancholy. Rather, Donne leaves it to his readership to draw conclusions based around a missing piece of information. Donne does not, in this instance, find himself without words to describe his illness – but instead experiences a fear of

⁹⁸ Ibid, p.67.

them. Within the *Devotions*, Donne has demonstrated an acceptance of the incomplete nature of human knowledge (and the inevitability that human knowledge will never be complete), but he also develops frustration and now fear of the unknown. It would be foolish to suggest that there is certainty in diagnosing Donne's condition, but the attempt to convey knowledge of melancholy whilst lacking the understanding necessary to explain it fully looms large in the background of this meditation.

Donne's representations of mental illness are not merely limited to these fleeting references to his own melancholy. In the fifth meditation Donne declares that the 'greatest misery of sickness is *solitude*;' caused by fear of the diseased being infectious.⁹⁹ He is open in stating that '*Solitude* is a torment', and feels that:

When I am dead, & my body might infect, they have a remedy, they may bury me; but when I am but sick, and might infect, they have no remedy, but their absence and my solitude.¹⁰⁰

Once again, the lack of medicinal knowledge is what causes Donne the most anguish. In his writings as a younger man, it was the competition between old and new knowledge that most affected his interest. However, as an older – and more sickly – man it is the lack of knowledge rather than an imagined competition between different branches of knowledge that holds his attention. Indeed, Donne goes so far as to link explicitly solitude with 'a *disease of the mind*; as the height of an infectious disease of the body'.¹⁰¹ Thus, we are shown again the psychological effects of disease upon the human body.¹⁰² Moreover, Donne presents physical causes for the illness of the mind that he deems solitariness to be. Donne, as

⁹⁹ *Devotions*, p.24.

¹⁰⁰ *Ibid*, p.25.

¹⁰¹ *Ibid*, p.26.

¹⁰² It can seem anachronistic, or suggest a certain scholarly laxity, to refer to 'psychology' in relation to Donne. Indeed, Trevor openly opposes 'The recourse to modern psychoanalytic categories', terming them 'not necessary', p.82. However, the idea has some critical heritage with Eliot suggesting that 'Donne is in a sense a psychologist', in T. S. Eliot, *The Varieties of Metaphysical Poetry*, ed. Ronald Schuchard (London: Faber and Faber, 1993), p.80.

he does throughout the *Devotions*, negotiates what understanding he has and aims to supplement it by focusing upon physical evidence and causes that may determine the medicinal effects that he then suffers from.

The final significant discussion of mental illness with the *Devotions* is found within the sixth meditation. Having established the melancholy that seems to be at work in his mind, and the solitude that may have spurred it, Donne openly confronts the issue of fear. He can see the physician ‘*feares, and [Donne] feare[s] with him*’¹⁰³ because of this his own fear is increased. Indeed, Donne notes ‘*feare will counterfet any disease of the Mind*’ and in doing so suggests that, whilst fear is not itself a disease, fear is transmitted like a disease. Indeed, when discussing the disease-like nature of fear Friederich has suggested that ‘the most condensed expression of this fear [within the *Devotions*] is part of the reflections on poisonous natural vapors.’¹⁰⁴

Moreover, fear acts upon the mind as disease acts upon the body. Donne’s fear is also indicative of the cognitive failings of his own mind due to the sickness he is experiencing. He states that he ‘*feare[s] not the hastening of my death, and yet I do fear the increase of the disease*’,¹⁰⁵ and ironically (given how Donne has just termed fear a counterfeit of disease) in fearing the increase of disease he actively increases the amount of disease-like substances in his mind. For a writer who is perhaps best known for his detailed logical and philosophical explorations of subjects, which ultimately divulge the inherent convoluted and contradictory nature of many of the most pressing issues within human existence there is an undoubted failing in Donne’s logic at this point. His understanding of fear as disease-like, combined

¹⁰³ *Devotions*, p.29.

¹⁰⁴ Friederich, ‘Expanding and Contracting Space in Donne’s *Devotions*’, p.19.

¹⁰⁵ *Devotions*, p.30.

with his fear of the disease increasing is clearly paradoxical. Donne attempts to find logic within his own paradoxical experience by announcing that:

As then every cold ayre, is not a *dampe*, every *shivering* not a *stupefaction*, so every *feare*, is not a *fearefulness*, every declination not a running away,¹⁰⁶

however, what is revealed in his treatment of fear is the illogical manner by which mankind can act upon their understanding. Clearly, given Donne's own definitions it is illogical to increase the fear he is experiencing (as this in turn will make him more fearful, and more filled with disease-like substances) but he cannot stop himself. He attempts, but is unsuccessful, in his endeavours to rationalise this with cultural doxa. Ultimately, this meditation demonstrates that despite our knowledge we are not always able to implement actions based upon it. Therefore, Donne highlights – without meaning to – a second frustration with the nature of drawing together disparate knowledge within a single work. Not only does Donne resent the incompleteness of knowledge – he also has disdain for the inability to utilise fully his knowledge. In his earlier works the reliance upon competition between various branches of knowledge was deemed essential so that supposedly 'superior' understandings could take president. In the *Devotions*, Donne has gone beyond needing this sense of definitive hierarchies within the nature of knowledge. Instead, he suggests 'every debating is not a resolving'.¹⁰⁷ Ultimately, Donne seems to have – for whatever reason – reached an understanding whereby the existence of debate is more significant than the potential for conclusion. Given his own experiences with being unable logically to implement his knowledge, because of the weaknesses inherent in human existence, and his frustration at the incompleteness of knowledge he seems to conclude that it is the presence and availability of knowledge that is its greatest asset, not its practical application within the world of human experience. Donne draws together various branches of knowledge, not with the desire to

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

‘test’ them, but with a desire to acknowledge that they exist and have others acknowledge that he is aware of these theories and their limitations.

Having examined the tentative exploration of mental illness that Donne embarks upon, it is worth briefly noting the voracity and directness with which he approaches the nature of bodily disease.¹⁰⁸ In defining the nature of bodily disease Donne adopts several strategies. In the third meditation he notes the ‘privilege, and advantage to Mans body, above other moving creatures,’¹⁰⁹ as mankind walks upright and is able to enter into ‘the contemplation of *Heaven*’ whilst animals are deemed to ‘look to the *earth*’.¹¹⁰ However, when he compares mankind’s position to that of disease he is all too acutely aware that:

A fever can fillip him downe, a fever can depose him; a fever can bring that head, which yesterday carried a *crown* of gold, five foot towards a *crown* of glory, as low as his own foot, today.¹¹¹

Thus, the power of disease over man is made clear by the subjugation which it can impose upon the human form. This power within disease is then tempered by the seventh meditation which announces that ‘My disease cannot *survive mee*’.¹¹² Clearly, whilst disease is a powerful force it needs a human host within which to survive. Paradoxically, Donne has noted that the survival of disease is dependent upon the survival of the human host – which in turn is a failure of a potentially fatal disease to complete its natural remit. Donne then goes further by noting that human society is governed by consultations between the powerful and the wise, and notes how ‘*Diseases* themselves hold *Consultations*, and conspire how they may multiply, and joyn with one another’. Indeed, not only does he imply that disease has a life span (for it would not be able ‘survive’ were it not alive) but also that they have social

¹⁰⁸ As with the rest of the text, which in many senses is a work founded upon the principles of dissection, Donne makes a clear separation between diseases of the body and the illnesses of the mind.

¹⁰⁹ *Devotions*, p.14.

¹¹⁰ *Ibid*, p.15.

¹¹¹ *Ibid*.

¹¹² *Ibid*, p.35.

interactions. These are, of course, metaphorical social interactions and a further demonstration of Donne using cultural doxa to highlight and address the problem of explaining complex – and unseen – substances to his readership. The fact that his human societal examples of governance note Roman dictators and his disease specimens are seen as conspiring also subtly alludes to the assassination of Caesar. In adding such literary, and historical, elements to his comparisons Donne further illuminates the nature of disease by adding further cultural doxa which may increase the potential application of his allegorical framework. Not only does the image now convey the manner by which disease multiplies (supposedly with sentience as if pursuing a definite goal) but simultaneously the nature of the disease's desire ultimately to assassinate its victim becomes inherent to the image.

Furthermore, not only does Donne suggest sentience within the nature of disease and that it is active in pursuing the decay of humankind, he also notes the manner by which internal and external factors make the body susceptible to illness. In the twelfth meditation Donne rhetorically asks; 'What will not kill a man, if a *vapor* will?',¹¹³ and in doing so highlights miasma as being believed to be the leading cause of illness within this period. However, he also turns to internal causes which allow illness to flourish. Having suggested that a man can kill his neighbour with our infectious vapours being the progeny of our infected bodies, he also suggests that 'wee our selves doe it to our selves by the same meanes, kill our selves with our owne *vapors*'.¹¹⁴ For man to be poisoned by his own breath the poison must, logically, come from within. Thus, Donne resorts to Galenic medicine in asking 'did I drinke in *Melancholly* into my selfe?' Clearly, Donne is referring in this instance to humoral theory. Moreover, Donne relates at this point a unity between mental and bodily illness. The imbalance which causes excessive melancholy is seen to cause the mental illness

¹¹³ Ibid, p.62.

¹¹⁴ Ibid, p.63.

which in turn affects the vapours produced by the individual which, furthermore, infects not only others but also his own body. Donne then turns to the nature of the cause of melancholy suggesting that it may be ‘my thoughtfulness’ or ‘my study’ – the ‘quintessential activities of the scholar’.¹¹⁵ In conclusion, Donne feels that whilst he has not been amongst the:

Examples of men, that have bin their own *executioners*, and that have made hard shift to bee so; some have alwayes had *poyson* about them, in a *hollow ring* upon their finger, and some in their *Pen* that they used to write with: some have beat out their *braines* at the wal of their prison, and some have eate the *fire* out of their chimneys: and one is said to have come neerer our case then so, to have strangled himself, though his hands were bound, by crushing his throat between his knees;¹¹⁶

he still feels that whilst he does ‘nothing upon my selfe’ yet he is ‘mine owne *Executioner*’.

The intrigue within this discussion of illness comes from how it neatly encapsulates the trends within the *Devotions* as a whole. Not only does Donne draw together the idea of miasma with the ancient notion of humourism, approach both melancholy and bodily disorders, and suggest that whilst merely a vapour disease has a disproportionate power over man – he also implies that the bringing together of all of this information, and all of his knowledge which is used to support such information is done so for futile reasons. He is not actively pursuing his own death by ‘crushing his throat between his knees’ but he is still dying – seemingly because of his own nature and vapours. The futility of Donne’s predicament highlights the repeated problem throughout the *Devotions* that incomplete or inapplicable knowledge cannot protect mankind. Inevitably this forces the reader to question why Donne is cataloguing his illness, thoughts, and fears in such a fashion. If the sum of human knowledge is not enough to save him, why spend so long relating portions of it and why bother noting empirical observations (regarding the progress of a disease) alongside

¹¹⁵ Trevor, p.85. For an early account of the link between academic pursuit and melancholy see also, Marsilio Ficino, *The Book of Life*, trans. Charles Boer (Texas: Spring Publications, 1980), particularly book one ‘On Caring for the Health of Students’. For an opinion on how ‘the physiological effects of intellectual labour were such that the man of letters [in Early Modern England] could hardly hope to escape melancholy’ see Lawrence Babb, ‘Melancholy and the Elizabethan Man of Letters’, *HLQ* 9:3 (April, 1941), 247-61, p.261.

¹¹⁶ *Devotions*, p.63.

intellectual musings? The answer it seems can be determined from Donne's stoicism. Not only does Donne feel death is inevitable, he welcomes it. It would seem that this work attempts to draw together knowledge (without the typical Donnean desire for competition or 'correctness') so as to present his knowledge and preserve it once he has died. This in turn suggests the inherent value that Donne placed on knowing and understanding. Whilst as a young man he valued the pursuit of intellectual supremacy, now he finds that all branches of knowledge have value – even when out-dated, impractical or inapplicable. This change of opinion is a key element of the unique role that the *Devotions* play within any discussion of Donne's treatment of science, and more generally the interaction of knowledge within his works.¹¹⁷

¹¹⁷ The uniqueness of the *Devotions* has been tempered by Jonathan Goldberg, 'The Understanding of Sickness in Donne's Devotions', *Renaissance Quarterly*, 24:4 (Winter, 1971), 507-517. In particular Goldberg suggests that the *Devotions* 'a unique work of the imagination' but contests that 'commonplaces... lie behind Donne's thought', p.507. However, this ignores that fact that the commonplaces within the text (such as the association of sin and illness) are relatively insignificant when compared with the original aspects of Donne's text. Goldberg himself acknowledges the prevalence of the assumption of 'uniqueness' within scholarly thought in citing the extensive body of work relating to the 'curious' aspects of the *Devotions*. See particularly, Helen C. White, *Devotional Literature [Prose] 1600-1640* (Madison, Wisconsin: University of Wisconsin Press, 1931), p.254, C.J. Stranks, *Anglican Devotion* (London: SCM Press, 1961), p.65. Specifically for the adjective 'curious,' see Evelyn Simpson, *A Study of the Prose Works of John Donne* (Oxford: The Clarendon Press, 1948), p.251, Edward Le Comte, *Grace to a Witty Sinner* (New York: Walker, 1965), p.186.

Chapter Two: Anatomical and Physiological Thought in Milton's Works

Discussions of Milton's work in relation to anatomical science almost inevitably focus upon the issue of sight. It is difficult to ignore the wealth of material and study that has been devoted to seeing, the eyes, and blindness within Milton's canon. However, this chapter – whilst not explicitly ignoring the issue of sight and blindness – does not seek actively to explore them. Where relevant, as in the discussion of *Samson Agonistes*, the chapter will interact with the prevalent body of work on Milton's blindness (and representation of vision) but this is not the major interest of this investigation.

Rather, this chapter seeks to explore anatomical trends that do not depend so heavily upon Milton's own biography. Instead it focuses on those that relate more directly to the science of his day (and to the scientific beliefs he upheld). The chapter begins by demonstrating that dissection practice was a key element of Milton's intellectual understanding and approach to knowledge. The *Commonplace Book* is a much under-examined work and this expressly private document offers us sharp contrasts with the more vaunted 'public' works. Indeed, the similarities between the structure and workings of the *Commonplace Book* and the methods of the private dissection offer us a unique insight into the pseudo-scientific approach to knowledge that Milton employed.

Following this, the chapter next turns to the great variety of 'bodies' that Milton describes within his works. Clearly, gendered approaches to reading Milton's various portrayals of the male and female form are useful, but we can go beyond this as Milton offers us terrestrial and non-terrestrial bodies. The chapter will examine how Milton presents, not merely men and women, but angels (both those still in heaven and those that have fallen), heroes (in the guise of Samson) and also physical embodiments of God (in the descriptions of Christ). The study of Milton's various 'bodies' will encompass both the functioning of the

body and mind, with an exploration of the digestive process, and also the manner by which self-identity is formed through the workings of the body, notably the sensory organs.

The chapter then concludes by examining the most significant dissection within the whole of Milton's canon – the removal of the rib from which Eve is formed – and uses this to establish, not merely Milton's over-arching concerns when approaching anatomical matters, but also to compare his approach with the one we have already seen Donne to employ. These two writers offer contrasting relationships with the human anatomy, and through the differences (and in some ways through the seemingly fleeting similarities) between the two writers allow us an insight into how knowledge and awareness of anatomical science guided and shaped the intellects and imaginations of early modern figures.

Dissection, the Mind, and the Body within Milton's *Commonplace Book*.

Renaissance dissection practices were divided along lines of being either public or private.

The private demonstrations, for example in Venice, took place:

throughout the academic year in local hospitals, smaller classrooms, nearby apothecaries and pharmacies, and the homes of local practitioners and professors. Often closely connected to clinical medicine, they could treat an individual's cause of death (autopsy) and look at specific aspects of anatomy related to on-going research questions, at medical (rather than natural philosophical) knowledge, and at surgical manoeuvres.¹¹⁸

Whereas public dissections tended to be annual occasions 'typically conducted [in the example of the University of Padua] after Christmas and before the onset of Carnival and Lent. These were not only the coldest months of the year (a natural retardant for the processes of decay); they also marked the break between the fall and spring sessions, or semesters.'

These could last up to six weeks, depending on the number of available cadavers, and took

¹¹⁸ Cynthia Klestinec, *Theatres of Anatomy: Students, Teachers, and Traditions of Dissection in Renaissance Venice* (Baltimore: The Johns Hopkins University Press, 2011), p.14.

place in theatres designed similarly to small stadiums, with observers being both academic and non-academic.¹¹⁹ The frontispiece of Vesalius's *De Humani Corporis Fabrica Libri Septem* offers an elegantly composed image of a public dissection (**Figure 1**). In the foreground we see figures tussling as one appears to have stolen a tool belonging to Vesalius; there are dogs and even a monkey present, whilst the eyes of the audience are mainly drawn towards the corpse at the centre of the image (and Vesalius's pointed finger is mirrored by several other fingers guiding the viewer's sight line towards the dissected abdomen). Giovanna Ferrari has noted the scene as 'vivacious';¹²⁰ there is a sense of pleasure in viewing and the academic side of anatomy is largely ignored – with only one character choosing to study a text book rather than to view the corpse (or to demonstrate lack of interest by engaging in conversation or squabbles). Indeed, the scientific work (the actual dissecting of the body) has happened prior to this scene;¹²¹ we are now given merely an image of display rather than of science in progress. Vesalius's hands demonstrate this most clearly, as he does not hold a scalpel but rather indicates where the eye should focus. Thus, the distance between the two interrelated practices of public and private dissection becomes clear. Whilst private dissection is of scientific and educative value, the public dissection has an air of performance far less conducive to the acquiring of knowledge.

Whilst these public demonstrations would seem to be the most likely influence upon the works of Donne, with regards to Milton's *Commonplace Book* it is the private dissections that are of the greatest significance. The structure and purpose of the *Commonplace Book* is in itself a reflection of the practices of the anatomist. Commonplace books have been:

¹¹⁹ Ibid.

¹²⁰ Giovanna Ferrari, 'Public Anatomy Lessons and the Carnival: The Anatomy of the Theatre of Bologna', *Past and Present*, no.117 (November, 1987), 50-106, p.64.

¹²¹ As would have been standard practice. See, Glenn Harcourt, 'Andreas Vesalius and the Anatomy of Antique Sculpture', *Representations*, no.17 (Winter, 1987), pp.28-61.

Regarded as aids to memory and storehouses of knowledge, they were part of a pedagogic tradition related to rhetoric and the art of memory that dated back to the classical period. Reducing vast amounts of knowledge to a manageable form, they instantiated a special relationship between the accumulation of knowledge and the organization of space.¹²²

And indeed there is some truth in this reading of the nature of the practice of commonplacing.¹²³ It is also true that their popularity within renaissance circles stems from the humanist education system promoted most famously by Erasmus who opined that:

young children might muche more to their profecte and benefit bee exercised in the grammer schooles with themes, or arguments to wryte on... so that the shoolemaister dooe open and declare the rewles and wayes how that whiche is briefly spoken maye bee dilated and sette out more at large, and how that that is so fondly spoken... maye bee turned or applyed to a serious use and purpose.¹²⁴

Here, Erasmus's definition seems to suggest that the note-taking element of commonplacing, combined with a later reappraisal of those notes offers a significant aid to memory and to learning. Indeed, Donald L. Clark follows a similar belief in his understanding of the nature of commonplace books by suggesting that a commonplace was originally an oration that amplified, dilated, and coloured acknowledged truths about the good or evil which is common to everyone, and that a form of commonplace evolved which was compiled by the individual student for personal use – at its most simple a notebook in which the student could enter select quotations that he encountered in his reading and deemed worthy of later development.¹²⁵ Whilst all of these things may be true, this chapter hopes to go further by examining the particulars of Milton's *Commonplace Book*, so as to provide a unique strategy for reading this significant literary artefact. Many commentators have, as we have seen,

¹²² Lucia Dacome, 'Noting the Mind: Commonplace Books and the Pursuit of the Self in Eighteenth-Century Britain', *Journal of the History of Ideas*, 65:4 (October, 2004), 603-625, pp.603-4.

¹²³ The use of the word 'commonplace' as a verb is cited by the OED as being first used by Donne in his sermons, and secondly by Milton in *The Doctrine of Divorce*.

¹²⁴ Desiderius Erasmus, *Apophthegmes*, trans. by Nicolas Udall (1542), pp.31-2.

¹²⁵ Donald L. Clark, *John Milton at St. Paul's School: A Study of Ancient Rhetoric in English Renaissance Education* (New York: Columbia University Press, 1948), pp.217-226, 238-239.

focused upon commonplacing as educative or an aid to memory but have not gone further in examining what can be revealed amongst the elements of an individual's education that the book's author deems worthy of committing to memory.

It is worth, at this juncture, considering the 'private' nature of the *Commonplace Book* more thoroughly. Privacy is a universal trait amongst commonplace books. If we consider Yeats's reaction to Bishop Berkeley's commonplace book we find that he 'thought that Berkeley habitually wore a mask, as it were, in public, and that the *Commonplace Book* takes us behind his mask to his true mind.' and that he found the work 'intimate and revealing'.¹²⁶ Anthony Trollope's commonplace book was both labelled 'private' and upon reading offers 'remarkable evidence of his early literary propensities'.¹²⁷ Whilst each commonplace book must be treated on a book by book basis since their contents can differ markedly (as can their styles) these two reactions to Trollope and Berkeley's commonplace books hint at the unexplored potential of Milton's. Milton's *Commonplace Book* was an unpublished work and was never designed for publication. The book is, ostensibly, a collection of sayings and quotations to which Milton wished to have ready access. It is divided according to headings devised by Aristotle¹²⁸ (into three indices – Ethical, Economic, and Political) with subheadings according to the subject matter of the various citations and paraphrases that Milton wished to record. To suggest exactly why each selection was copied (either directly or from memory) or paraphrased is a fruitless task. We can, however, suggest that the work was not compiled with the same level of intention as his 'public', or published, works. The *Commonplace Book* was not designed as a literary text, and has until now has not been

¹²⁶ As reported in A.A. Luce, 'The Purpose and the Date of Berkeley's "Commonplace Book"', *Proceedings of the Royal Irish Academy*, vol.48 (1942/3), 273-89, p.273.

¹²⁷ N. John Hall, 'Trollope's Commonplace Book, 1835-40', *Nineteenth Century Fiction*, 31:1 (June, 1976), 15-25, p.15.

¹²⁸ Costello has demonstrated how Aristotle was at the 'heart of the scholastic method' during Milton's education so this is hardly surprising. William T. Costello, *The Scholastic Curriculum at Early Seventeenth-Century Cambridge* (Cambridge, Massachusetts: Harvard University Press, 1958), p.10.

treated as such, primarily as it does not, by definition, have the same level of artistry as Milton's published works. It is rather a selective encyclopaedia of Milton's knowledge and preferences. What is crucial, however, is that Milton made the selections and these selections were far less influenced by external forces than the processes for selecting materials that publishable works are subjected to.¹²⁹ The relationship between the *Commonplace Book* and Milton's published works mirrors the relationship between the private and public anatomical dissections. Milton's published work (rather like a public anatomical demonstration) relies upon the knowledge of the author, or anatomist, but also upon the expectations of the reader, or audience. Public works must demonstrate a level of exhibitionism, whilst simultaneously regarding (or intentionally disregarding) the wishes, opinions and understandings of the target audience. They may display parts of the vast array of knowledge that the individual initiating the 'display' has in their possession, but they are fettered by the boundaries of societal expectation (even when a work attempts to push against these boundaries, the act of transgression is in itself an acknowledgment of societal taboo).

A work that is as private as the *Commonplace Book* acts similarly to the private dissections. Milton could examine, in microscopic detail, fragments of his literary knowledge through the book. He could peruse at his leisure, returning to passages repeatedly when necessary or desired, the various limbs and branches of his own knowledge. The *Commonplace Book* does not position works together indiscriminately, but the only discriminating factor is the personal understanding of Milton and the private intentions that he may have in copying or replicating any given passage. Much as an anatomist may teach a select few students, or pursue the answers to as yet unanswered questions on the human form through private dissections, so Milton can further his own understanding of his own

¹²⁹ Clearly, since the time of Cicero public figures knew that their private writings were liable to be published. The *Commonplace Book*, whilst not a series of private letters, diaries or memoirs, will still be partially affected by the possibility of its contents being revealed for scrutiny but far less so than even the 'private' correspondence of other literary figures of the time.

knowledge, and therefore of knowledge itself, by dissecting his reading and displaying it in a private work that is, by nature, inherently dissected. The work does not merely dissect in the sense of dismembering quotations from the body of the works in which they originally appeared, nor even in the sense that the minutiae of a work may be examined as peripheral subject matter is shorn away, but also in the sense that, by categorising each reference, Milton attempts to label and annotate his knowledge much as an anatomist would the various samples that he has taken from the corpses he anatomises. The *Commonplace Book* can, therefore, be closely linked to the practice of private dissection as it is a work that explores the boundaries and methodologies of knowledge and understanding so as to produce a greater understanding of the substantive body of Miltonic, and human, knowledge.

It is of course worth noting that amongst this anatomised reflection of Milton's literary knowledge there are sections which indirectly contemplate dissective practices.

Under the heading of 'Chastity' Milton quotes the tale of:

The nun Ebba [who] cut off her nose and lips and urged the other sisters to do the same thing so that, frustrated in this way, the Danes would make no attempt against their virtue.¹³⁰

Through this reference to John Stow's *Annales, or Generall Chronicle of England*, Milton does not merely offer an insight into how strongly he held his religious beliefs (in this instance in the necessity for nuns to remain chaste and the lengths to which they must go to remain as such), nor does he merely demonstrate – through his applauding of female mutilation – his beliefs regarding the role of women in sexual relations,¹³¹ we are also proffered a view of Milton's intellectual separation of the body and the mind. Here, the

¹³⁰ All references to the *Commonplace Book* are taken from, J. Milton, *Commonplace Book*, ed. Ruth Mohl in *The Complete Prose Works of John Milton*, vol.1 (Yale: Yale University Press, 1953), p.370.

¹³¹ Milton's seeming agreement with this tale suggests that it is a woman's duty to prevent male sexual urges, and that not repelling even the unwanted attention of men passes a judgement upon the women who to a modern reader would most certainly be the victims.

female body must be made subservient so that the urges of the male mind, and indeed body, may be quelled. Ebba's mutilation is a justifiable sacrifice to protect the morality of both parties. That this is the only passage Milton copied under the heading of 'Chastity' is also intriguing. We can infer that not only did Milton probably agree with the sentiments of this passage (as he makes no effort to disparage the passage, nor does he offer any alternative learning to contradict it and further references to women in the text support this viewpoint) but that during the time he spent compiling his *Commonplace Book* he found no other passages that were either suitable or compelling enough to be included under this subheading. It would be remiss to assume that the full breadth of Milton's understanding of chastity (which is here defined as an exclusively female trait) is defined by this one excerpt,¹³² but there are strong indicators that at least one of the key tenets of Miltonic understanding on the subject is exemplified by it.

The separation of the body from the mind is one of the crucial aspects of Milton's understanding of the nature of knowledge that the *Commonplace Book* imparts. Under the heading 'Of Courage' Milton quotes Lactantius¹³³ by announcing:

A man's courage depends, not upon his body, but upon his reason, which is man's strongest protection and defence.¹³⁴

Here, once again, Milton demonstrates his belief in a separation of the body and the mind that implies that knowledge and understanding are to be considered separately from the physical world. If 'courage' is virtuous, that Milton believes (as Lactantius did) that courage is born of 'reason' rather than the 'body' is extremely revealing. The mind, as the seat of knowledge, is considered also to be the seat of moral well-being. If the mind is 'man's strongest protection

¹³² Particularly given the lengthy treatises he wrote on divorce which also approach the topic.

¹³³ For a discussion of how the passages from within the *Commonplace Book* relating to Lactantius figure in Milton's wider writings see William Poole, 'The Genres of Milton's *Commonplace Book*', in *The Oxford Handbook of Milton*, ed. N. McDowell and N. Smith (Oxford: OUP, 2011), 367-381.

¹³⁴ *Commonplace Book*, p.373.

and defence' then Milton supports a hierarchy in which knowledge, and moral virtue are superior to any physical acts. As in the example of Ebba disfiguring herself to avoid shame, the ability of mankind to understand, to hold knowledge and to be morally adhering because of these factors is, to Milton's way of thinking, a collection of attributes far superior to mere physical beauty or grace. Milton not only praises the mind through this implied hierarchy (which promotes knowledge and self-knowledge as being the key factors in an individual's moral preservation) but denigrates the body's significance – by implying that it may be damaged to protect the individual, and that logic and reason dictates it should be the element of the body which is damaged first in the protection of morals. As morals are individually held tenets, created within the mind according to the individual's understanding of external stimuli and cultural doxa, Milton openly supports the importance of protecting the product of the mind (by which I mean knowledge and learning) even if it is to the detriment of the physical being.

The hierarchy between mind and body that Milton implies in the passages he selected for inclusion in his *Commonplace Book* is also adhered to by the very nature of the text itself. We have discussed how Milton may have selected each extract, and how he may have agreed with some and disagreed with others, but what is also notable is what has happened to the rest of the text (outside of each reference) that is not selected for inclusion in the book. By selecting a choice quotation Milton, much as an anatomist in a private dissection might, removes what he deems interesting, noteworthy, or deserving of closer inspection whilst discarding the rest of the work as superfluous. A commonplace book, by its very nature, discards the physical form of the texts it draws upon so that it might inspect individual tenets of learning. By creating a commonplace book, Milton involves himself in a tradition of dissecting the body of literature available to him, so as to extract what he personally considered to be superior understanding, ignoring that which was not of sufficient interest.

Thus, the *Commonplace Book* represents the mind at the summit of Milton's hierarchy, whereby the bodies of the texts each tenet is drawn from are dismissed and sacrificed so that the pinnacle (as Milton perceived it) of learning and knowledge might survive. There is a cannibalistic form of anatomy at work in this text, as Milton does not contribute new knowledge, he merely recycles and reinstates old knowledge which he has previously encountered and drawn into his own learning.

A similar reflection upon the body, the mind, and how dissective practice promotes the creation of, and discovery of, new knowledge is apparent within Vesalius's image of a skeleton¹³⁵ contemplating a skull. The image from Vesalius's work (**Figure 2**)¹³⁶ demonstrates once more the desire to relate the external workings of the body with the internal ones. The skeleton, stripped of flesh, is shown to stand before a neo-classical podium a hand resting lazily upon another skull. Fragments of skeletal matter adorn the lectern upon which the main figure leans and the figure appears both contemplative and meditative in its examination of the skull which it holds in its hand. For the dissected body to take such an academic interest in the anatomised remains of another corpse creates an intellectual paradigm when the juxtaposition of the image and the context of the surrounding scientific text are considered. The process of gaining the academic knowledge demonstrated within the text of *De Fabrica Humani Corporis* is portrayed figuratively. Whilst in reality the anatomist should be the one to consider the skull, the anatomist has now been displaced. The objective viewer is figuratively represented by the subject the anatomist views. In doing so, the image forces the seemingly alien representation of the skeleton to become normalised. The context

¹³⁵ Whilst a skeleton is not always a dissected body, in the case of **Figure 2** it certainly is since the image is the last in a series which depict the human form following various, increasingly invasive, forms of dissection. This image is very much a 'final step' in the stripping of flesh from the bone that is demonstrated in this sequence.

¹³⁶ Whilst Vesalius was scrupulous in the production of his textbook, the illustrations were provided by Jan Van Calcar, cited by Vasari as a pupil of Titian's.

of a scientist at work is seen to be interdependent with the posturing of this skeletal form. The internal workings of the body are shown to be inherently linked to the external.

To demonstrate the internal workings of the body acting as the external elements also normalises and legitimises the practice of dissection. We see, through the study that the skeleton is engaged in, that the body and the mind are inseparable. The external and internal, the visible and the hidden, elements of the body work in a synergy – this image furthers that synergy to include the workings of the mind (the pursuit of knowledge and the demonstration of intellect) as being part of the same partnership that exists between the internal and external form. Thus, a predilection for anatomising the body becomes apparent. Milton is explicit in creating a hierarchy between the mind and the body. Vesalius, through the inclusion of an image that dispels any notion of a separation between the body and mind, also admits the prevalence of this way of thinking. No statement confirming the symbiotic relationship and interdependence of the mind, body and soul would be necessary should there not be a trend, within intellectual circles, for anatomising these elements. Intellectual figures throughout the renaissance recognised the three elements of the human form (body, soul and mind) and, whilst there was no consensus of opinion, debate existed over the relationship between the three. For Milton, an undoubted hierarchy existed – ultimately leading to his belief that the mind should be treated preferentially over the rest of the body.

The image also raises the question of the permissibility of dissection. By drawing similarities between the action of the complete body and the action of the dissected body the image implies the same harmlessness in viewing the body's interior as there is in viewing the exterior. The body's internal workings are to be seen as normalised. They are no longer hidden and mysterious but are now usual, regular, and acceptable. This theme of permissibility is also apparent within the *Commonplace Book*. Under the heading 'Of Knowledge of Literature', Milton asks 'Whether it is permissible to give attention to profane

writers¹³⁷ and concludes that, following the reasoning of Socrates, it is. That Milton questions whether he should access certain literature (and certain knowledge) is telling. In this private work his private fears are realised. He may conclude that ‘profane’ literature is acceptable, but by considering whether or not it is Milton highlights the likelihood that he will find certain literatures and certain areas of knowledge to be impermissible.

The impermissible is highlighted under the heading ‘Of Curiosity’. Milton states:

That the profound questions concerning God, which the human reason explains or comprehends with considerable difficulty, should either not be thought about or should be suppressed in silence lest they be proclaimed to the people and from this source a cause of schisms be given in the Church, Constantine very wisely admonishes in a letter to Alexander and Arius.¹³⁸

And further notes how:

To night-owls Basil likens the sophists, who in minute and obscure matters are furnished with eyes or wish so to be regarded, and who in weighty matters of visible truth and beneficial knowledge are blind; for the owl at night sees acutely but by day is dim-sighted.¹³⁹

In both of these instances, Milton’s private concerns over the permissibility of certain knowledge (and the possibility of justifying knowledge) become apparent – albeit by indirect means. Whilst the image from within Vesalius’ work aims to offer justification for the pursuit of ‘dangerous’ knowledge, the private nature of the *Commonplace Book* negates the need for an attempt to justify – instead offering a contemplative space in which the debate over permissibility may be played out, without a defence or justifying thesis being necessary. That the morality of Milton’s reading is so key to his understanding of it is also intriguing. Milton’s personal religious beliefs guided not only what he read but how he read it.

Furthermore, when his religious beliefs came into conflict with the knowledge he gained

¹³⁷ *Commonplace Book*, p.376.

¹³⁸ *Ibid*, p.380.

¹³⁹ *Ibid*, p.381.

from literature he clearly felt a deep personal difficulty in justifying his desire to gain that knowledge. That he quotes a passage on the ‘profound questions concerning God, which the human reason explains or comprehends with considerable difficulty’ and agrees that such thought should be admonished and silenced is telling. Milton clearly has a desire to be involved in understanding the world around him as he clearly had an urge to learn. However, as we have seen, the practice of commonplacing is in itself a dissective act that exposes the most vital and intriguing parts of written knowledge (as perceived by the commonplacer) and, therefore, Milton seemingly – were it not for fear and his faith – would be even more involved in the work of the sciences than his amateur interest currently displays. Vesalius sought to justify his discoveries, knowing the moral minefield within which he worked (particularly working in church dominated Italy). Milton shows not only a desire to learn of these discoveries and expand his knowledge, but also a fear of impiety. This highlights another complication in defining the *Commonplace Book* of a devoutly and devotedly religious man as private – because within the anatomised remains of Milton’s knowledge there is only one external censor, and this is God.

This conflict is further emphasised by the quotation Milton replicates comparing sophists to night-owls. Here Milton joins in a mockery of those who study infinitely small detail whilst becoming blind to the wider world. He, seemingly out of a position of piety, rejects the study of the component parts for fear of ignoring the divinely created whole – and yet the very nature of the *Commonplace Book* makes this opinion seem hypocritical. Milton takes a pleasure and pride in the valuable minutiae of his literary knowledge, he anatomises books in search of the choicest materials, and yet here he denounces such practice. Clearly then, Milton’s curiosity combined with his devotional beliefs caused a great schism within his own attempts to study and understand the world. At the heart of a work in which Milton aimed to memorialise the choicest pieces of literary study, he simultaneously damns such

empirical, analytical, and anatomising a practice as neglectful of the glories of God's creation. Within a work that is not intended for publication the internal conflict betrayed by these contrary opinions does not have to be suppressed, further highlighting the significance of the *Commonplace Book* as a tool by which to gain strategies for reading Milton's other works.¹⁴⁰

At this point it is also worth considering another key aspect of the 'bodies' within Milton's text. We have already established that Milton separates the mind, the soul, and the body within his *Commonplace Book*, and that in doing so acts as a renaissance anatomist might with his attention turned only to literary corpses rather than human corpses. However, another key distinction that is apparent within this text is the manner by which Milton approaches male and female bodies. This was briefly touched upon in Milton's retelling of the story of the nun Ebba, but continues throughout the text. Under the heading 'Of Conduct' Milton only offers one tenet, in this instance from Clement of Alexandria's *Paedagogus*, namely that:

Women should not expose themselves more than is necessary.¹⁴¹

When taken in isolation, this is a fairly bland statement (given the context of the period in which Milton lived). However, when read alongside Milton's other pronouncements on women the statement takes on an entirely more sophisticated meaning. Earlier in the work, under the heading 'Of Lust' (further subtitled 'Lechery') Milton instructs himself to:

See in Thuanus the examples of two Belgian virgins excellently avenging the dishonor done on them.¹⁴²

These two entries, combined with the previously discussed tale of Ebba, offer an illuminating insight into Milton's treatment of women within the text. The 'two Belgian virgins'¹⁴³ are

¹⁴⁰ For a recent study of 'internal conflict', and the logical inconsistencies they predicate, within Milton's works see Peter C. Herman and Elizabeth Sauer eds., *The New Milton Criticism* (Cambridge: CUP, 2012).

¹⁴¹ *Commonplace Book*, p.392.

¹⁴² *Ibid*, p.370.

allowed retribution for having been wronged, the entry regarding Ebba showed her to commit violence against herself to avoid the shame which these two women experienced, and finally the declaration taken from Clement supports a general thesis that arises from the text, namely that a woman's role in sexual matters is, above all, the preservation of chastity. Milton presents us with women who are only to be praised for their ability to dissuade, or avenge the sexual advances of men. The female body may be disfigured to avoid moral shame, it may be covered to achieve the same effect, and having been shamed a woman would do 'excellently' to seek seemingly violent revenge for her shaming. Owing to the encyclopaedic nature of Milton's work, we are given more insight into the manner by which Milton perceived these statements (and as to the exact aspects that he valued most highly) by how he categorised them amongst his sub-headings. All three would appear to relate to female conduct in various situations, and yet only the quotation from Clement comes under this heading. Similarly, female conduct may well – given Milton's rather lecturing pronouncements on morality throughout the work – be considered suitable for the Ethical Index of the book. However, the allusions to Ebba and the 'Belgian' women are taken from Milton's selection of extracts on 'Lechery' and 'Chastity' (suitably placed within the Ethical Index) whilst the Clement extract comes under 'Conduct' (within the Economic Index). Thus, we see Milton considering which type of women he deems each of these passages to relate to. Within the Ethical Index we are presented with nuns (chaste due to their devotion to God) and two women defined by their virginity. Both of the examples from within the heading 'Lechery' and 'Chastity' are considered to relate to the corruption of 'purity' and virginity. The pronouncement on the conduct of women more generally, however, is within an Economic Index (that opens with a section 'Of Food', and follows the section 'Of Conduct' with one entitled 'Marriage – SEE OF Divorce'). Thus, it would seem fair to assume that Milton took Clement's statement to

¹⁴³ It would be wrong to believe 'Belgian' to refer solely to a place on the continent. Milton's nephew, Edward Phillips, in his 1658 work, *A New World of English Words*, suggests that the word 'Belgia' can also refer to 'the people anciently inhabiting that part of England now called, Sommersetshire, Hantshire, and Wiltshire'.

relate to married women (as the Economic Index focuses upon life within the home rather than moral well-being). Therefore, Milton accepts the realities of married life and the moral superiority of chastity – as promoted by the Ethical Index – is suitably ignored. However, all three do promote female introversion – whether a woman is married or not. This is perhaps an unsurprising situation, until we consider Milton’s open acceptance of ‘Concubinage’. Milton’s references to concubines are both extensive and notable for the manner by which they become increasingly liberal (contrary to the puritanical attitude we have seen him previously display with regards to female sexuality and the female body more generally). The section begins with a quotation from Holinshed noting how concubines were:

the cause of household disquiet. as it turn’d both wife & children against our Hen.
2.¹⁴⁴

And it would appear from this that Milton is being consistent in his damning of sexual liberality (and indeed of any sexual relations outside of a monogamous, married relationship – including any sexual prodigality which might threaten the cornerstone of social stability, family life). However, this quotation (suggested by Mohl as being entered into the book between 1639 and 1641) is followed by a reference to John Selden (collected between 1640 and 1644) stating that:

one concubine was allowed in the early Christian Church¹⁴⁵

and a further reference to Cyprian stating:

many men, even the clergy, who were not at all bad men and even endured martyrdom, had women in their homes,¹⁴⁶

It may appear from this that Milton had (in his earliest quotation) opposed secular use of concubines, allowing it in clerical circumstances only (where a family would not be disrupted

¹⁴⁴ *Commonplace Book*, p.403.

¹⁴⁵ *Ibid.*

¹⁴⁶ *Ibid.*

by the presence of a concubine) however, his next selections completely undermine such a reading as he notes how:

Charlemagne had four concubines.¹⁴⁷

Before noting:

Philip, Prince of Hesse,¹⁴⁸ leader of the Protestants, considered himself not at all improper in bringing home a concubine to his wife, after having discussed the matter with the pastors.¹⁴⁹

Milton then explicitly praises the role that bastard children (particularly those mothered by concubines) have played in history noting that:

Charles Martel, a most warlike and honorable prince, was the son of a concubine, and of him was born Pepin, father of Charlemagne.

Also recording how:

Ferdinand, the son, by a concubine, of Alphonso, the honourable King of Naples, succeeded to the throne.

Finally suggesting that:

in France “Bastards were acknowledged and shared equally with legitimate offspring” until the time of Hugh Capet in France.

And:

in Italy. “They make no great difference in Italy between a bastard and a legitimate child.”¹⁵⁰

For Milton to have given such an extended section of his *Commonplace Book* to the subject of concubines allows us an informative insight into his appreciation of the role of the human body within the world. It is notable that, if the quotations which follow, relating to the

¹⁴⁷ Ibid, p.404.

¹⁴⁸ It would be remiss to ignore the fact that Phillip of Hesse was central to a complex argument surrounding polygamy that Milton would be undoubtedly have been aware of as Leo Miller notes in his discussion of this passage in *John Milton among the Polygamophiles* (New York: Lowenthal Press, 1974), p.210.

¹⁴⁹ Ibid. Taken from Thuanus’s *Historia*. Both this and the previous reference are dated as being entered into the *Commonplace Book* between 1644 and 1647.

¹⁵⁰ Ibid, p.405.

difficulties concubines caused Henry II are considered to be justifications of concubinage, all are taken from abroad. However, more notable still is the inactive role of the women who become the concubines to these men. If friction occurs, it is never blamed upon the man bringing the concubine into his household. Only the male children of a concubine are praised, never the woman herself. Whilst Milton has previously deemed the female body to be a thing that may be subjected to great violence in order to preserve virginal purity, or that it is necessary for a married female body to be subjugated to avoid adulterous intrigues, here Milton does not make any such pronouncements. The women behind the name of ‘concubine’ are anonymous and beyond the consideration of any of Milton’s passages. Milton’s *Commonplace Book* suggests that, to his mind, a woman’s body was primarily the object of male sexual attention and how a woman prevented men from gaining access to her determined her moral, and material, worth. The female body, within the *Commonplace Book*, is, therefore, a commodity. It is not a financial commodity but rather a sexual one, and the value of a woman’s body was determined by how difficult it was to obtain. Milton disregards the mind, or soul, of women who do not conform to his ideals of chastity. The female body is a mere object within the *Commonplace book*, capable of nothing more than enticing immoral sexual attention.

Milton’s treatment of men, and the male body, again focuses upon sexual behaviours and shares a similarly oppressive and restrictive tone. Milton’s main interaction with male behaviour (other than the lust for women which we have already seen implied by his directions for female behaviour) comes in his choice of pronouncements on ‘Lust for boys or men’.¹⁵¹ Milton chooses a surprisingly large range of extracts to encapsulate his opinion of

¹⁵¹ Ibid, p.369.

the matter¹⁵² and focuses, once again, upon what is impermissible. On the issue of pederasty he quotes Lactantius in asking:

What can be sacred to those who would debase the age that is weak and in need of protection, so that it is destroyed and defiled through their own lust?

He then quotes from memory how:

In our legends King Mempricius is marked with the sin of sodomy.¹⁵³

Milton finally, under the sub-heading of ‘Leachery’, quotes Boniface’s ‘excellent letter to Ethelbald, King of the Mercians’ stating that:

a people born of lechery and unlawful union¹⁵⁴ will be sluggish and very destructive of the fatherland.¹⁵⁵

What this sustained interest in forbidden sexual practices reveals about Milton is not entirely clear. Whilst it may seem as though Milton is appearing prejudiced or puritanical, these thoughts adhere with what was legally and socially accepted at the time of Milton gathering these remarks in the *Commonplace book*. What is notable, however, is that – whether socially adhering in his opinions or not – Milton demonstrates an interest in little other than the sexual potential of the human body.

We have seen his, somewhat fraught and nervous, contemplation of the piety and permissibility of intellectual pursuits and also that Milton valued the capacity of the mind over the potential of the body. However, it would seem that one of the primary reasons for this was that Milton feared the body may be incapable of actions outside of those that are base and sexualised. If Milton’s depiction of the nature of the human form, as gleaned from the *Commonplace Book*, is to be read in its entirety as a group of references (rather than a

¹⁵² Milton uses three sources when most commonly in the *Commonplace Book* one source was deemed sufficient to establish Milton’s understanding of an issue and summarise his interest in it.

¹⁵³ *Commonplace Book*, p.369.

¹⁵⁴ The ‘unlawful union’ of this quotation may refer not merely to homosexual acts but also to adultery or pre-marital sex.

¹⁵⁵ *Commonplace Book*, p.369.

single reference at a time) we are left with a rather distasteful image of humanity. Men are seen to pursue others (be they male, female, adult or children) purely for sexual gratification, often in a fashion contrary to what Milton deemed 'acceptable' behaviour. Women are deemed only to fulfil their role in the world if they dedicate their bodies to the denial of male advances. Milton only displays humankind interacting with each other on a sexual level, and does not offer any opportunity for the human body to interact with the world outside of itself in a profitable fashion. It is only the mind that can have a valuable interaction with the world, through the gaining of knowledge and understanding, and even in these instances Milton is wary of the permissibility of the actions required for intellectual exploration.

Therefore, it is clear that the *Commonplace Book* is a highly personal, significantly troubled work, with Milton's private fears and concerns prevalently transcending the various layers of knowledge that he displays. It is both an encyclopaedia of Milton's literary interests and, though other critics have ignored this aspect somewhat, a key tool in understanding Milton's personal understanding of nature of knowledge.

The work shares, not only a similar methodology as that of an early modern anatomist, but also the same moral concerns with regards to 'opening' what God has created to see what was previously hidden. Unlike the anatomists however, Milton does not seek to justify such forms of study. Rather he attempts to overcome the inbuilt conflict of private curiosity and personal religious beliefs by way of strict and censorious opinions. He is keenly specific in determining the differences between men and women, focusing upon sexual practices. He does not seek to justify male sexual proclivity, but merely chastises homosexual behaviours whilst placing the responsibility for all heterosexual behaviour upon the woman. Indeed, from the quotations Milton chooses to include in the work, we can determine that a great many of his opinions on women were formed around how they conducted themselves sexually. It seems hypocritical to a modern reader that men are treated so liberally, whilst

women are treated so condescendingly within the work – but such hypocrisy is also a key element of the *Commonplace Book*. Despite making statements that would seemingly deny anyone the right to study anatomy, Milton's divisions between men and women are drawn on purely anatomical lines. He does not fall into the clichés of feminine beauty and emotional development that abound in this period,¹⁵⁶ remaining purely anatomical in his distinction between the actions of the two genders. Within Milton's crude depiction, men are sexually driven and morally upstanding women will (until marriage) resist this.¹⁵⁷

Milton is somewhat more subtle in his treatment of mankind (something clearly separated within Milton's work from the gender boundaries implied by the word's prefix). Whilst the interactions of man and woman can be seen to have a clear moral designation, the interaction of mankind and his world does not. Milton does not justify the actions of scientists (as Vesalius attempts to) and in places admonishes them. However, the nature of the book, and the manner by which Milton treated the knowledge displayed within it, clearly

¹⁵⁶ Despite displaying an abundant awareness of these tropes and skilled usage of them, in his depiction of Eve within *Paradise Lost*.

¹⁵⁷ In some ways the approach Milton takes in his *Commonplace Book* when depicting the difference between men and women is also reminiscent of the approach of anatomists towards dissecting male and female corpses. Whilst men are seen in animalistic fashion, women are considered more reserved and owing to the protection of their morals were less available to anatomists. This does not mean female dissections did not take place, it was in this period that the fallopian tubes were first discovered, and Leonardo Da Vinci made several interesting studies (**Figure 3**). However, the fact that he focuses on the areas of anatomy that are specifically female (primarily the reproductive organs) reveals the lack of female specimens (when compared to the number of male cadavers). Anatomical work that could be performed on either sex (such as that concerning the heart, lungs or brain) tended to be performed on male corpses (and the vast majority of Leonardo's flayed human figures, or *écorchés*, conform to this fact, see **Figure 3** for a typical Vesalian example). The rarity of female corpses meant they were reserved for studies that could not be performed on a male corpse. The image Leonardo produced of the foetus in utero, see **Figure 5** is particularly remarkable as pregnant specimens were even rarer still. Indeed, throughout the whole of Leonardo's images there is evidence of one pregnant cadaver, and potentially two non-pregnant female specimens (used for a study of the pelvis and a pair of images of the female vascular system). There is also evidence that even in the latest phase of Leonardo's anatomical studies (c.1510 onwards) he was 'still obliged to draw upon his knowledge of animal anatomy to supplement his human studies.' Notably, Milton's 'dissections' follow a similar trend of focusing upon anatomical differences between the genders – and therefore the role of the sexual organs. Of further intrigue is the fact that Leonardo's dissections 'departed sharply from contemporary practice' because they were configured by an imagination which focused upon 'the image' rather than 'traditional, mostly classical [anatomical] texts'. Thus, both Leonardo and Milton conform to a typecast of 'amateur anatomist' fitting for the period, which is suggestive of more general, even universal, trends within the absorption of scientific knowledge into the understanding of artistic minds. Frank Zöllner, *Leonardo Da Vinci, 1452-1519: The Complete Paintings and Drawings* (Köln: Taschen, 2003), pp.400-2.

demonstrates a level of hypocrisy and conflict within his own morality. As an educated and intelligent man Milton sought out knowledge, as a religious man he feared this curiosity. As the later chapter on ‘Astronomy and Knowledge in Milton’s Works’ will demonstrate (p.225), it was not only on anatomical matters that Milton sought to act in a scientific fashion, and gain scientific knowledge, nor was it only within his *Commonplace Book* that he felt the need to reprimand himself for desiring such understanding. The hypocrisy of desiring forbidden knowledge, of participating in a forbidden methodology, and yet openly damning such practice is made clear by Milton’s entry on ‘Consultation’. Milton notes that:

To what extent belief and acquiescence should be given to the counsels of experienced men Comines wisely teaches, and he gives very weighty reasons; [he says that] even experienced men often make mistakes, either when governed by their desires, or when they take sides contrary to those of their rivals, or sometimes, as can happen, if perchance they may be in a state of body or mind by no means sound.¹⁵⁸

Here, once more, we see Milton guarding against knowledge. Milton fears the influence of incorrect information passed on by ‘mistakes’ (both empirical and moral) or even by ‘desires’. However, as is typical of the work, such an opinion is self-defeating. Milton claims that we should not take our knowledge from ‘experts’ in a non-critical fashion, and yet to prove his point references an ‘expert’. This passage, therefore, can be seen as a microcosm of the workings of the *Commonplace Book*. Within it we are exposed to the book’s anatomised nature, Milton’s desire to be knowledgeable and to be seen to be knowledgeable, the frailty of the body and mind and also of Milton’s predilection for dictating moral stances whilst simultaneously being warned against taking authority’s word unquestioningly. The conflicted and contrary nature of the *Commonplace Book* is entirely apparent within this one reference. This work, designed so as to offer Milton the same intellectual space as a private dissection offered an anatomist is ultimately one in which, despite being private, Milton is not his own master. His curiosity and logic compete continually with his morality, and it is because of this

¹⁵⁸ *Commonplace Book*, p.384.

conflict that the *Commonplace Book* is of great significance. The reason that no scientific works are recorded within the work may be simply out of Milton's fear of his own understanding. Much as those following the teachings of Galen, upon dissection the human heart, disputed the evidence of their own eyes¹⁵⁹ the *Commonplace Book* demonstrates Milton to be denying (or at least fearful of) his own understanding of the world. Clearly, within this journal Milton worked in an empirical, encyclopaedic, and, ultimately, scientific fashion – and yet the work denies the prevalence of such knowledge and understanding due to Milton's overriding and inescapable moral bent.

Miltonic Bodies.

It is not merely within the *Commonplace Book* that Milton demonstrates an interest in the differences between various bodies. Throughout Milton's corpus a vast array of bodies are described, and an equally large number of minds are examined. Milton frequently draws a distinction between the physical and intellectual elements of the human form and the symbiotic working of body and mind is a continual concern within his work.

It seems logical given Milton's vastly differing approaches to the male and female form first to consider the presentation of men and women separately before attempting to understand Milton's perception of the human form more generally. It also seems prudent to base the examination of Milton's interaction with human bodies around the most famous examples of man and woman that he depicted, namely Adam and Eve. The presentation of Adam within *Paradise Lost* has been studied extensively. There has, however, been far less

¹⁵⁹ Galen famously predicted that the human heart would have holes passing through the septem to allow blood flow. Later anatomists, upon dissecting a heart, discovered none and announced it a miracle of God's creation that the holes were too small to see. It would not be until Harvey correctly described the human circulatory system that such a myth could be totally denounced.

attention paid to examining Adam, or as this chapter will similarly explore with regards to Eve, from the perspective of the scientist.

It is notable that the descriptions of Adam frequently raise medicinal concerns.¹⁶⁰ We learn that as Eve suggests to Adam ‘Let us divide our labours’ (IX.214), so as better to fulfil their work within the garden Adam responds with ‘healing words’ (IX.290).¹⁶¹ Whilst this initially seems to refer to the gentle and tactful manner by which Adam corrects Eve (he is ‘healing’ rather than denying in his initial refusal and, therefore, acting positively to avoid Satan’s temptations rather than negatively against Eve’s freedom) there is also a medicinal image at work here. Eve has proposed a division and a separation of the two. Adam is open to the idea of the two working separately for a time but then is worried ‘least harm Befall thee severed from me’ (IX.251-2). The separation of Adam and Eve is at this moment more viscerally described by the suggestion of the two being ‘severed’ than even during the dissection where God initially took the rib from which Eve was to be formed.¹⁶² As we know that this separation will lead to the Fall it is possible that the violence and anxiety that surround the descriptions of this separation aims not to foreshadow later events (as there is no need for Milton to foreshadow the culmination of the most famous story in Christian literature) but rather reveal Milton’s personal anxieties with regards the body. When the rib is taken we know that Eve is to be formed and will remain a companion of Adam’s, thus, the two are never truly separated. However, here as we know that this separation will lead to the Fall Milton’s language reflects his own trepidation when dealing with the body in pieces.

¹⁶⁰ All references to *Paradise Lost* with this thesis are taken from, John Milton, *Paradise Lost*, 2nd edition, ed. Alastair Fowler (London: Longman, 2007).

¹⁶¹ For further use of ‘healing words’ see p.105 for Milton’s interactions with catharsis in *Samson Agonistes*. It is also worth noting that within *The Art of Logic* Milton equates language and Galenic medical science further when he warns ‘in descriptions one should avoid taking cause for genus, as when doubt is described as an equality of reasons, [or] health as a balance of humours’, *Art of Logic* in John Milton, *The Complete Prose Works*, vol.8, ed. Maurice Kelley (New Haven and London: Yale University Press, 1982), p.314.

¹⁶² The removal of the rib and its association with this proposed separation is alluded to by Milton as Eve is asked not to leave ‘the faithful side That gave thee being’ (IX.265-6).

Whilst we have seen Donne revel in the glory and intriguing nature of the body's individual parts Milton does not favour this dissective approach preferring to view the body as a whole. The separation of two bodies so closely related and potentially so intimately connected as to be merely two halves of the same body is, therefore, troubling to him. The Fall would seem to occur because the body is not working as a unified object or rather because the two halves of mankind have stopped working in unison. Adam attempts to repair this divided body through his 'healing words' but ultimately it is his consent and failure to persist that allows the two bodies to be separated causing the division that will lead to Eve's temptation.

The effect that eating the fruit has upon Adam would seem to support such a reading.

We hear that:

from thus distempered breast,
Adam, estranged in look and altered style,
Speech intermitted thus to Eve renewed.
Would thou hadst hearkened to my words, and stayed
With me, as I besought thee, (IX.1131-5)

and that Adam's consumption causes him to become 'estranged in look and altered style' demonstrates a medicinal and physical effect has been caused by eating the fruit. Milton further strengthens the medicinal aspect of the metamorphosis by stating:

Their inward state of mind, calm region once
And full of peace, now tossed and turbulent:
For understanding ruled not, and the will
Heard not her lore, both in subjection now
To sensual appetite, (IX.1125-9)

the 'turbulent' state of mind that Adam and Eve have entered reflects the imbalance of humours that within the Galenic system of disease causes illness. The body is shown not merely to be unbalanced as the mind is now 'tossed' but that the Miltonic ideal of the mind taking precedent over body has been ruptured as the mind 'ruled not'. Milton reaffirms the imbalance of the humours by claiming that both Adam and Eve are subjugated by their

‘sensual appetite’.¹⁶³ When we consider Galen’s belief in the almost independent nature of the stomach (p.105) Milton seems to provide a cause for the Fall of Man beyond merely moral failings. He proposes that a scientific and medicinal explanation lies behind the Fall. The division of the united body of mankind causes an initial wound that Satan is able to exploit – a wound that is founded upon the body countermanding the mind (since Adam and Eve’s discussion is based in reason and yet they go against this). Furthermore, in the aftermath of consuming the forbidden fruit we see symptoms of the unbalancing of the humours. The medicinal language explains that the Fall can both be seen to be caused by Adam and Eve’s bodies being separated and that the consequence of this is a further disintegration of the relationship not merely between man and God but also between body and mind.

By treating medicinal and scientific knowledge as though it were part of the same all-encompassing system of understanding, of which biblical knowledge is also a part, Milton continues to demonstrate the mind-set that caused him to create his *Commonplace Book*. Milton did not subscribe to the genrefication of knowledge and, therefore, applied the breadth of his knowledge as he deemed applicable to the various writings he produced. Milton’s approach to the human body, in which the individual parts do not share the same grandeur that Donne ascribes to them but rather the unified workings of the body as a whole is focused upon, mirrors this approach to knowledge. Both of Milton’s methodologies can be deemed ‘holistic’ and whilst he does create hierarchies within his understanding of the body (mainly regarding the pre-eminence of the mind over the physical form) and debates the ‘correct’ and pious hierarchy which should be applied to knowledge these do not impinge upon treating the body as a unified object rather than a collection of smaller objects. Indeed, as we see from Adam’s presentation, Milton believed the unity of the human body is crucial to its wellbeing.

¹⁶³ The ‘sensual appetite’ clearly also relates to the lusty sexual appetite that has replaced the pair’s earlier sexual relations.

As Harinder Singh Marjara has noted (in his discussion of the effect of Galilean astronomy upon Milton) Milton postulated ‘the existence of unity in all nature based on its material substratum’.¹⁶⁴ Thus, when dealing with the human body the individual parts are deemed merely portions of the larger more praiseworthy whole.¹⁶⁵

It is not merely within the medicinal images of Adam that we see Milton favouring a collective approach to his presentation of the body, and the ‘body’ of mankind. Whilst sight is regularly explored by Milton scholars, as Kester Svendsen has noted, ‘Milton’s own medical history has attracted more attention than his literary physiology and psychology’,¹⁶⁶ the role of Adam’s ears and hearing is also notable. When Adam listens to Eve her words ‘Turned him all ear to hear new utterance flow’ (IV.410). Later, however, when he listens to Raphael:

The angel ended, and in Adam’s ear
So charming left his voice, that he awhile
Thought him still speaking, (VIII.1-3)

and these descriptions of Adam’s hearing are telling. Galen, when discussing hardness of hearing and deafness, claims that ‘those things involving the [ear’s] nerve and the brain are just like those in the eyes’¹⁶⁷ and thus, especially when we consider that the central books of the poem are devoted to Adam listening to Raphael’s words, the workings of Adam’s ears and hearing can be deemed as significant as the workings of his eyes. Indeed, in the evocation of light, at the opening of book three of *Paradise Lost*, Milton depicts ‘unapproachèd light’ (III.4) but moves from seeing this light ‘Dwelt from eternity’ (III.5) to how ‘hearst thou

¹⁶⁴ Harinder Singh Marjara, *Contemplation of Created Things* (Toronto and London: Toronto University Press, 1992), p.220.

¹⁶⁵ Milton is guided in this belief not merely by scientific understanding (both his own and that he gained from authors both classical and early modern), but also by aesthetic concerns.

¹⁶⁶ Kester Svendsen, *Milton and Science* (Cambridge: Harvard University Press, 1956), p.174.

¹⁶⁷ Galen, *On Diseases and Symptoms*, trans. Ian Johnston (Cambridge: CUP, 2006), p.214.

rather pure ethereal stream' (III.7).¹⁶⁸ Whilst this is an idiomatic phrase, the choice of a phrasing that employs hearing (and an individual taking an active role in the working of their hearing by means of taking a preference) offers a moment of transition between what is seen and what is heard, thus, drawing the workings of both the eyes and the ears into closer proximity.

There is also a sense that mankind (and in this instance specifically men) take pleasure from hearing. Adam responds to Raphael's words with a 'delighted ear,' (V.545) he continues by stating that he has 'more desire to hear, if thou [the angel Raphael] consent' (V.555). Adam's desire to learn 'The full relation' (V.556) is telling. Not only does the use of 'relation' imply the bond that speech, listening, and the symbiotic nature of conversation have forged between Adam and Raphael but this impinges upon Milton's discussion of learning from experts (p.87). The 'relation', and relationship, that the two impart by talking and hearing acts to link further the objects of the ear and the eye. The working of the eye was in this period disputed owing to the prevalence of two competing theories. In the first the eye was receptive (as we believe it to be today) with light and images passing into it and in the second, more dynamic, system the eye was believed actively to seek out the objects a person saw. Here, Milton seems to be implying a similar duality in the functioning of Adam's ears. Adam's ears are receptive,¹⁶⁹ he is 'filled With admiration' (VII.51-2) by Raphael's stories and yet his ears are seemingly active in their 'desire' (V.555) to hear more. Adam's hearing is, therefore, a sense that is capable of extending his internal personality and desires into the outside world as much as it is capable of allowing the external world to mould his internal opinions. Adam's curiosity causes him to employ his hearing when striving and desiring to learn more whilst, simultaneously, his opinion of the world is being moderated by the words

¹⁶⁸ Fowler notes that this is a Latin idiom and the *OED* cites this as the earliest usage in English of the phrase meaning 'to prefer to hear, to prefer to be addressed or called'.

¹⁶⁹ The extent to which the ear can be deemed receptive is demonstrated by the medieval doctrine of the *conceptio per aurem*, according to which the Holy Spirit preserved Mary's virginity by entering her via the ear.

that Raphael chooses his ears to receive. Hearing, therefore, acts as strongly as sight in allowing Adam to understand the relationship between his internal and external world. In essence Milton proposes that the sensory organs help, by seeking and receiving information, to form Adam's sense of 'self'. He learns of 'Great things' which are 'full of wonder' (VII.70) that are 'Far differing from this world [both heaven in relation to Earth and the external world in relation to his own internal one]' (VII.71) and does so 'in our ears' (VII.70). Adam's sense of self can be termed as created within the physical confines of his ear as much as it is within his eyes. Both pleasurable news and that which is 'dreadful' are not received by Adam's ear, but are seen to act 'in mine ear' (VIII.335), and thus Milton uses the sensory organs to establish the end point of Adam's body and the beginning of the external world.¹⁷⁰ The information Adam has of the world can be retrieved and can be forced upon him, but in all (Earthly or natural) cases it is received via his sensory organs and is understood within the site of those organs. Good and bad information is seen to act within Adam's ear and any further penetration of this information into Adam's body requires the mind to cause the body to act upon what the sensory organs have been stimulated by. It is because of how Milton understands the senses (as both active retrievers and passive receivers of information reliant upon the mind's consent for further action to be taken owing to the external stimuli) that in book eleven we see Adam forced to 'bend thine ear To supplication' (XI.30-1) and he is also seen 'placable and mild, Bending his ear' to external 'persuasion' (XI.151-2). To 'bend' his ear is to alter its function by metaphorically altering its shape, and thus Adam is seen to be forced to go against the 'natural' manner of his senses by allowing sensory stimulation to enter his mind unquestioningly.

Whilst Adam's ears are seen to have a dualistic function and the information they capture is seen to be filtered by the mind, Milton presents Eve's situation very differently.

¹⁷⁰ See p.165 for Donne expressly reversing this trope.

Satan ‘Squat like a toad, [sat] close at the ear of Eve;’ (IV.800) and when relating her dream to Adam she recalls how the tempter ‘Close at mine ear... called me forth to walk’ (V.36), we are also told that during Adam’s conversation with Raphael over the nature of the heavens Eve ‘retired in sight’ (VIII.41) but:

went she not, as not with such discourse
Delighted, or not capable her ear
Of what was high: such pleasure she reserved,
Adam relating, she sole auditress;
Her husband the relater she preferred
Before the angel, and of him to ask
Chose rather; he, she knew would intermix
Grateful digressions, and solve high dispute
With conjugal caresses, from his lip
Not words alone pleased her. (VIII.48-57)

Therefore, Milton presents Eve’s method of hearing as different to that of Adam’s.

Anatomically the process is the same, but rather than the sounds being within Eve’s ear, as they were with Adam, here they are shown to occur ‘close at’ her ear suggesting a greater distance between Eve and the world she is within. Adam’s interaction with his world is also more direct since not only do his senses draw the sound of the world into his ear, but he is also drawn to hearing information first-hand. Milton expressly demonstrates that it is not because she is ‘not capable’ of understanding what is said, contrary to Thomas Corns’ reading of this passage,¹⁷¹ but because of how she wishes to hear her information from ‘her husband’ as the ‘sole auditress’. Eve is willing to leave a distance between herself and the information her senses draw in and, in the case of this discussion with Raphael, actively increases the remove to which she is from the source of the information. Milton’s reasoning for this difference seems to be that Eve is less serious and more tactile than Adam, who offers ‘grateful digressions’ and ‘conjugal caresses’; there is also the sense that Eve is more hedonistic because she wants ‘not words alone’ from Adam’s lips.

¹⁷¹ Corns believes Eve to leave at this point because she is more suited to a role within the nursery. T. Corns, *Regaining Paradise Lost*, (London and New York: Longman, 1994), p.70f.

The similarity between Adam and Eve's senses and the underlying differences in how they use them are highlighted again by the passages relating to each character's respective creations. As has regularly been noted Adam first looks to heaven and Eve first looks down into the pool – upon herself. This difference demonstrates once again that whilst Milton links the sensory organs to each other in their respective functions (implying that each sensory organ is merely a partial contributor to the full sensory experience through which humans experience their world), and whilst anatomically both Adam and Eve have the same sensory functionality the choices they make relating to their sensory experiences are what determine the key differences between them. Milton presents man and woman within *Paradise Lost* as fundamentally similar with only minor physiological differences – suggesting that men and women are mostly differentiated by an unspecified form of expectation.

This is not to suggest that Adam and Eve are physically identical, which would of course be foolish, however, these differences are minor when compared to the dissimilarities in Milton's depiction of the functions men and women are deemed suitable to perform.

Milton states that:

nothing lovelier can be found
In woman, than to study household good,
And good works in her husband to promote. (IX.232-4)

And this seemingly implies a societal expectation to be placed on the roles of men and women from their very creation whereby women fulfil the role he describes in his

Commonplace Book under the Economic Index. Indeed, that a woman is at her loveliest when praising her husband's 'good works' seems patronising in its creation of a subservient role for women. For this to be considered a 'societal' expectation, however, is misleading since this occurs in a world where society does not exist.¹⁷² Milton's words seem to be intended for use

¹⁷² *The Doctrine of Divorce* suggests that marriage itself is a form of 'human society' and that 'all human society must proceed from the mind rather than the body, els it would be but a kind of animal or beastish meeting', p.275. Thus, there is a 'society' of sorts in *Paradise Lost*, just not the same society as that from which these expectations are drawn. The key to the difference between Adam and Eve is alluded to in *The Doctrine of*

in the society of his day, but that he provides the example of Eve within Eden seems to undermine this intention. Eve is, within the poem, the embodiment of all that is ‘woman’. Therefore, this instruction, which is seemingly aimed at all of female society, is actually shown in microcosm by the poem as it applies only to one woman within a single marital relationship.

We see this same attitude presented, albeit in a different context, within *The Doctrine of Divorce*. Milton notes ‘that social & helpfull aptitude which God implanted between man and woman toward each other’¹⁷³ but the tract is primarily focused upon the failing of this bond. Here, rather than suggesting women are at their best when praising the good in their husband, Milton displays the same opinion through a more negative tone by suggesting that woman is presented to man by God to avoid loneliness and that she should be removed if ‘the woman be naturally so of disposition, as will not help to remove, but help to encrease that same God-forbidd’n lonelines’.¹⁷⁴

In the case of Eve’s character we are seeing a projection of Miltonic attitudes (and beliefs based upon those of the society he lived in) applied retrospectively. We see this again when, despite having previously depicted Adam and Eve consummating their marriage, Milton describes Eve to have ‘virgin majesty’ (IX.270). It is possible that he is not referring to sexual virginity in this instance,¹⁷⁵ but it is equally possible that Milton is once again

Divorce when society is seen as a function of the ‘mind’. All references to *The Doctrine of Divorce* within this thesis are taken from, John Milton, *The Complete Prose Works of John Milton*, vol.2, ed. Ernest Sirluck (New Haven and London: Yale University Press, 1959).

¹⁷³ *The Doctrine of Divorce*. p.252.

¹⁷⁴ *Ibid*, p.247.

¹⁷⁵ It is equally possible that Milton did not correct this epithet having written the scene in the bower. James Grantham Turner discusses Eve’s virginity in *One Flesh: Paradisal Marriage and Sexual Relations in the Age of Milton* (Oxford: Clarendon Press, 1987), p.37, concluding that Adam and Eve have a ‘full but infertile sex life in Paradise’. Mary Christopher Pecheux agrees suggesting that Eve is not ‘a virgin in the literal sense at the time of the temptation’ but rather in has a ‘spiritual virginity’ in ‘The Concept of the Second Eve in *Paradise Lost*’, *PMLA*, 75:4 (September, 1960), 359-366, pp.361-2. Finally, Mandy Turner is not drawn into solving this problem referring to Eve’s virginity ‘whether fully real or merely rhetorical’ as an expression of her innocence in *Milton’s Ovidian Eve* (Farnham: Ashgate, 2009), p.153.

projecting the ideal of female chastity retrospectively upon his character. Similarly, we are told that Satan sought out Eve because she was the weaker of the two – seemingly because of her being female.

Therefore, it is possible to see Milton's projection of his own societal expectations regarding women and their role as being fundamental to the physiological differences that are presented between Adam and Eve. The obvious anatomical differences, those of the reproductive organs, are largely ignored by Milton and yet there are still anatomical differences presented. These are primarily mental as in the attitudes that Eve displays contrary to Adam's. Essentially, owing to the beliefs Milton held (and regularly displayed in his writings) the character of Eve is made into the weaker sex anatomically, physiologically, and psychologically. This does not imply a failing in female capability, as we have seen when Eve is not interested in a topic of discussion Milton is careful to demonstrate that it is not because of a lack of intellectual capacity, but rather that Adam and Eve are equally capable of fulfilling their role – it is just that Eve's role is to be tempted and simultaneously tempter. Therefore, the body Milton creates for Eve is one that is inherently and essentially flawed. Eve is anatomically different since Milton needs her to be so that she can fulfil her role within the story of the Fall as he understood it and wished to present it. Milton's depiction of Eve's body and mind is one that acknowledges the similarities between the workings of all human bodies but creates, what might have been deemed by his contemporaries to be, a scientific justification for his predispositions.

The distinctions between the male and female form are raised again in *Samson Agonistes* and within this text it is the power struggle between the sexes that predominates.¹⁷⁶ Samson seemingly wishes us to believe that it is men who are the dominant sex and who control relations between the two genders. When recounting his marital history he begins the

¹⁷⁶ All references to Milton's shorter poetry within this thesis are taken from, John Milton, *The Complete Shorter Poems*, 2nd edition, ed. John Carey (London: Longman, 2007).

story of his marriage to Dalila by announcing that he ‘took [her] to wife’ (l.227). By being the active participant within this exchange (the taker rather than the taken) Samson presents himself as the dominant figure within the relationship – with Dalila seemingly a mere possession to be claimed by a man at his will. Milton also states that:

God’s universal law
Gave to man despotic power
Over his female (ll.1053-5)

and yet despite these protestations of male power, we continually see this proclamation undermined.

We learn that Samson’s first marriage, despite being against his parents’ wishes, went ahead because of ‘intimate impulse’ (l.223), and it was at the ‘height Of nuptial love’ (ll.384-5) that he revealed the secret to the riddle he had set the young men of Timna. Women are also expressly considered a source of temptation when he describes Dalila as ‘my accomplished snare’ (l.230),¹⁷⁷ blames them for prompting ‘this heroic Nazarite, Against his vow of strictest purity’ (ll.318-19) and compares women to the serpent within Eden (l.997). Thus, Milton undermines the suggestion of male dominance by offering repeated instances of females exerting power over men. Since a majority of the descriptions of the female form within *Samson Agonistes* are taken from the perspective of Samson himself it is the effect that women have upon him that is the most thoroughly covered aspect of the female form, and most often it is the external appearance of women that has the greatest effect upon Samson.

Not only are women described as ‘bedecked, ornate, and gay,’ (l.712) it is also claimed that:

such outward ornament
Was lavished on their sex, that inward gifts

¹⁷⁷ The use of the possessive pronoun ‘my’ attempts to reclaim power from Dalila within this exchange but owing to the narrative of the biblical story the audience knows that such a claim is futile.

Were left for haste unfinished, judgement scant,
Capacity not raised to apprehend
Or value what is best (ll.1025-29)

and these inflammatory remarks, in which the external beauty of the female form is seen to explain a perceived lack of moral or intellectual standing, are repeated throughout the work when the Chorus later asks:

was too much self-love mixed,
Of constancy no root infix'd,
That either they love nothing, or not long? (ll.1031-33)¹⁷⁸

Thus, the female form is again seen as being fundamentally flawed. Women are perceived to be narcissistic and merely of superficial value. Moreover, when Samson is seen to be tempted and bettered by women it is repeatedly claimed that this is not owing to female superiority but rather owing to an inherent failing within Samson himself.

Having proclaimed Dalila his snare, Samson undermines the power this would seem to offer her by claiming 'She was not the prime cause [of my fall], but I myself' (l.234). Samson equally feels that 'foul effeminacy held me yoked' (l.410) and that 'a grain of manhood well resolved Might easily have shook of all her snares' (ll.408-9). However, the combination of Samson presenting his gender as superior yet continually being bested by women, his declaration of female superficiality and repeatedly entering into misfortune because a woman's beauty has caused him not to think and attributing those moments when he is bested by women to his own excessive desire for women¹⁷⁹ creates a series of paradoxical and illogical arguments. The supposition of innate male superiority that Samson proposes cannot be true if the elements that make him superior (such as a supposedly more sophisticated ability to reason) are duped by his desire for female traits.

¹⁷⁸ This 'self-love' is similar to the narcissism of Eve upon first viewing herself in the pool.

¹⁷⁹ Achsah Guibbory, 'The Jewish Question' and 'The Woman Question' in *Samson Agonistes: gender, religion, and nation*, in *Milton and Gender*, ed. Catherine Martin (Cambridge: CUP, 2004), 184-203, notes how Milton associates the feminine 'with bondage', p.184 and goes further by suggesting that 'Women seem to have had no positive role in Milton's imagining of England's liberty', p.189.

Rather, *Samson Agonistes* presents us with a series of depictions of female stereotypes focusing upon arguments of vanity and superficial beauty that actually reveal Samson's true flaw. Samson's truest flaw is not that he desires women to excess but rather that he believes that a hierarchy between the genders exists. Samson's hierarchy depends on men being more 'complete' (having both external appearances and internal mental and moral faculties) and that this makes them superior to their female counterparts. It is, as we have seen, entirely Miltonic to value the human form as a whole over the human form when in pieces and equally true to suggest that Milton values the working of mind and body together above the mere workings of either component part. However, as both men and women have internal and external faculties it is Samson's inability to realise that women too have intellectual, moral, and mental abilities that causes his downfall. Samson is deluded in his perception of the two sexes. Ironically, Samson is both physically blind and 'blind' to the internal workings of women. Failing to realise the harmony between body and mind in both males and females causes his downfall.

Whilst Milton demonstrates the failings of Samson's body to be caused by his failure to perceive the coherent working of female bodies and minds (neglecting female intellect to his peril), he remains keenly aware of the joint function of the body and mind within the work. In his prefatory piece 'Of that sort of dramatic poem which is called tragedy', Milton explicitly references Aristotle and his belief that tragedy was the most important of poetic forms as it could 'purge the mind' (l.4) of fear and terror before continuing by noting that:

Nor is nature wanting in her own effects to make good his [Aristotle's] assertion: for so in physic things of a melancholic hue and quality are used against melancholy, sour against sour, salt to remove salt humours. (ll.6-9)

By comparing the psychological effects of tragic drama with the pseudo medicinal effects of treating the humours¹⁸⁰ Milton draws an explicit linkage between not merely the body and the mind but between literature and medicine. Moreover, the medicine which Milton relates tragic poetry to is a medicine that relies upon notions of balance and unity most commonly described as the theory of the four humours. The medical tracts of Galen offer the best source for understanding the theory of the humours as the basis of medical practice.¹⁸¹ Galen's understanding of the humours was broadly that 'man was made up of blood, phlegm (i.e., mucus), yellow bile and black bile, and it was through these that he felt pain and maintained health. If their balance was disturbed, the body experienced disease.'¹⁸² However, Galen had certain personally held beliefs regarding the study of these humours. He is less selective in his use of the word χυμός (humour) than Hippocrates, using the word not only in a medicinal context but also to mean 'juice' or 'flavour'.¹⁸³ Galen is also critical of other medical practitioners and theorists in their approach towards the practical use and correction of humour theory. Galen emphatically asks whether:

it is useful to know how food is digested in the stomach, but unnecessary to know how *bile* comes into existence in the veins? Are we to pay attention merely to the evacuation of this humour, and not to its genesis? As though it were not far better to

¹⁸⁰ It may seem archaic to discuss the theory of the four humours but the humours were a cornerstone of ancient anatomical science and medicine. Galen (possibly the most influential of ancient medical theorists) had his work on anatomy unchallenged until Vesalius' *De Humani Corporis Fabrica Libri Septem* (1543), and his work on circulation unchallenged until Harvey's *De Motu Cordis* (1628), roughly 1400 years after his death. Even post-Harvey, figures such as Immanuel Kant used the theory of the humours to explain psychological and philosophical issues. In the theatre, Ben Jonson produced plays based upon the theory of humours and Shakespeare's *The Taming of the Shrew* features passages evoking choleric characters (and them eating foods associated with a choleric temperament). The practice of blood-letting and purges were also still common medicinal treatments, endured by many including Donne, and these all owe their theoretical basis to humourism.

¹⁸¹ Galen wrote extensively, with his surviving output totalling around half of the extant ancient Greek literary sources and it would be foolish to assume Milton to have read them all. However, owing to the manner by which Galen organised his materials it is possible to use Galenic texts to find the basis upon which Milton's were drawn without needing to find the exact textual references. Galen's prodigious output caused him to recycle and restate various ideas across his corpus and, therefore, it is more suitable within this study to examine Galenic influences more generally rather than the direct interactions of Milton with a specific Galenic text.

¹⁸² Galen, *On the Properties of Foodstuffs*, trans. Owen Powell (Cambridge: CUP, 2003), p.11.

¹⁸³ Galen, *On Diseases and Symptoms*, p.50.

prevent its excessive development from the beginning than to give ourselves all the trouble of expelling it!¹⁸⁴

Galen's frustrated remonstrance against Erasistratus and the Peripatetics offers us an insight into not only Galen's approach to medicine, but why this medicine may have appealed to Milton. As we have seen, the Galenic approach was being corrected by the time of Milton's birth but had not fully been removed. The reason, however, for it to remain particularly prevalent within Milton's conscious seems to be that Galen's approach to the human body mimics Milton's. Galen's attack on the Peripatetics for merely treating illness but not caring about the causes, namely the 'genesis' of the humours which have become unbalanced, invokes an holistic approach to treating the human body. Galen wished not only to understand how to cure illness but also how to prevent it. His explanation of the creation of humours further demonstrates this as he states:

in reference to the *genesis of the humours*, I do not know if any one could add anything wiser than what has been said by Hippocrates, Aristotle, Praxagoras, Philotimus¹⁸⁵ and many other among the Ancients. These men demonstrated that when the nutriment becomes altered in the veins by the innate heat, blood is produced when it is in moderation, and the other humours when it is not in proper proportion. And all the observed facts agree with this argument. Thus, those articles of food, which are by nature warmer are more productive of bile, while those which are colder produce more phlegm.¹⁸⁶

The similarities between Miltonic and Galenic approaches to the body are again made evident by this passage. Galen demonstrates an interest and respect for previous experts (similar to Milton's own interest as demonstrated by his *Commonplace Book*), Galen also reveals a need to follow processes to their logical conclusion in tracking nutrients from food to the blood and humours (as we shall later see Milton do in his treatment of digestion (p.105)), and

¹⁸⁴ Galen, *On the Natural Faculties*, trans. A.J. Brock (Cambridge & London: Harvard University Press, 1991), pp.167-9.

¹⁸⁵ Praxagoras was a physician from the second half of the fourth century BC., whom Galen acknowledges for his expertise in anatomy whilst simultaneously attacking for his view of the relationship between the nerves and the heart. Philotimus was one of Praxagoras' pupils (along with Herophilus of Chalcedon).

¹⁸⁶ *Ibid*, p.183.

finally Galen is holistic in his approach since the discussion of what he perceived as a fundamental human trait – their humoural basis – is related to the circulatory system, the digestive system, the food that nourishes the body and following this extract to the manner by which humours are affected by differing periods of life and different occupations. Much as Milton prefers to examine the human body as a whole and deems the unified working of the body to be superior to examination of the individual elements; Galen studied the human body as a whole and within the context of its surroundings. Thus, both men shared a common belief in an holistic, measured, and balanced approach to handling the human body – both when in good and bad health.

The desire humourism displays for balance and Milton's linking of drama purging the mind, much as a physician may purge the body, to 'heal' it once more demonstrates the prevalence of unity and completeness within Miltonic portrayals of the body. Milton seems to suggest that his work is a tool by which his readership may improve themselves; a notion supported by the failing of his tragic hero Samson's inability to recognise the unity of female bodies and their minds.

The concern for the body and mind arises repeatedly within *Samson Agonistes*. At the outset of the work Samson describes how he has retired to an:

Unfrequented place to find some ease,
Ease to the body some, none to the mind
From restless thoughts (ll.17-19)

and given the discussion Milton enters into regarding Aristotle within the prefatory materials the juxtaposition of the body being rested and the restlessness of the mind prefigures the cathartic intentions of the speeches Samson will later proffer. We are told of the imbalances in Samson's mind that he might later, by discussing these tribulations, be 'healed' of them. Samson's body and mind continue to be linked when we hear of his 'impotence of mind, [despite being] in body strong' (l.52), and once more the mind is treated as presenting

physical maladies when we are told of how his ‘griefs not only pain [him] As a lingering disease,’ (ll.617-8) but they also cause ‘wounds immedicable’ (l.620). However, Milton seems to propose that Aristotelian catharsis is the answer to Samson’s injuries. The comparison between the physical wounds healed by way of the humours and the cathartic drama that eases the mind continues within the main body of the drama as Samson’s issues with his own mind (and as we have seen with perceiving the minds of women) are played out. Samson is given large passages to declare his downfall and problems and in doing so Milton aims to purge his character (and readership) of their mental anguishes. By giving ‘balance’ back to his hero’s mind he allows Samson to become ‘complete’ once more, and once he is completed he is capable of fulfilling his role within the narrative. As we have repeatedly seen, Milton’s interest in the body, mind, and physiognomy of his characters is heavily focused upon completeness and unity – once Samson overcomes his mental anguish he once again becomes a capable figure.

The notion of completeness is intrinsically linked with the idea of making things explicable. If something is not fully understood it is by definition an incomplete area of knowledge. The discussion of angelic digestion from book five of *Paradise Lost* succinctly demonstrates this issue. We have already seen how Galenic approaches to the body are similar to Milton’s in that they focus upon the ‘complete’ body, and the same is true in their respective approaches to digestion. We have seen how fundamental Galen believed food was in the creation of humours and, thus, digestion was seen as key to the well-being of humans. Galen understood digestion as being primarily a function dependent upon the stomach. He believed that the stomach had a ‘contractile faculty’¹⁸⁷ which was ‘similar to [that] of the intestines’.¹⁸⁸ Galen’s understanding of the stomach was that, not only did it contract to

¹⁸⁷ Galen, *On the Natural Faculties*, p.237.

¹⁸⁸ *Ibid*, p.245.

process food but also contained ‘phlegm, bile, pneuma, [innate] heat, and, indeed the whole substance of the stomach’¹⁸⁹ whereby the humours found within the stomach explained the ability to vomit and the, rather vague, ‘innate heat’ acted towards digestion. Galen proposed the primacy of the stomach in the digestive system as it was surrounded by the liver, which created blood, the heart, which used blood, the spleen, which was crucial with regards to bile, and the intestines, which produced faecal matter, insisting that none of these things could occur ‘right away’,¹⁹⁰ as he believed they did without the stomach first making alterations to the food that was eaten.

Of course, Galen did not offer the only theoretical basis for digestion. Leonardo Da Vinci undertook a series of roughly thirty dissections during his anatomical studies, amongst which he hypothesised as to the functions of the digestive system (**Figure 6**). Da Vinci believed that the gases within the digestive system created a pressure that exerted itself upwards onto the diaphragm which in turn raised and forced the lungs to expel air. The mechanical logic of Da Vinci’s theory was no doubt aided by his studies in engineering and the manner by which he proposed one element of the body interrelating with the others (so as to function best when complete) would no doubt have interested Milton should Leonardo’s notebooks have been available to him at the time. William Harvey’s 1616 *Lectures on the Whole of Anatomy* proposed that the stomach offered a chance for the body’s ‘first concoction’¹⁹¹ and focuses heavily upon the liver as a place for ‘second concoction [and] sanguification’¹⁹² as Milton does not mention the role of the liver in ‘concocting’ food it

¹⁸⁹ Ibid, p.255.

¹⁹⁰ Ibid.

¹⁹¹ William Harvey, *Lectures on the Whole of Anatomy*, trans. C.D. O’Malley, F.N.L. Poynter and K.F. Russell (Berkeley and Los Angeles: University of California Press, 1961), p.84.

¹⁹² Ibid, p.89. Harvey also discusses the importance of the spleen in relation to the liver in the production of bile, and the role of bile within digestion. His main variation on Galenic thought, however, is the notion of the liver as producing blood (contrary to Aristotle’s belief that the heart did this), and therefore he makes the liver central to the process by which food is digested and transformed into humours by the body.

would seem that his model for angelic, and human, digestion is based upon Galen's understanding.¹⁹³¹⁹⁴

When Adam, Eve and the angel Raphael are having one of their discussions they stop to eat and Adam asks:

Heavenly stranger, please to taste
These bounties which our nourisher, from whom
All perfect good unmeasured out, descends,
To us for food and for delight hath caused
The earth to yield; (V.397-401)

before wondering if this is:

unsavoury food perhaps
To spiritual natures; only this I know,
That one celestial Father gives to all. (V.401-3)

From this offer, and moment of Adam's uncertainty, Milton creates an opportunity to expound upon the nature of the angelic form as he perceived it. Raphael responds:

what he [God] gives
(Whose praise be ever sung) to man in part
Spiritual, may of purest spirits be found
No ingrateful food: and food alike those pure
Intelligential substances require
As doth your rational; (V.404-9)

and from this we learn (as Adam does) of an unexpected similarity between humanity and angels. However, by suggesting that food created by God so as to be fit for man is also fit for angels Milton is drawn into a somewhat unusual series of logical progressions. Angels, being 'pure intelligential substances', require food 'as doth [the human] rational'. We have already been told that Adam's digestion is 'pure' (V.4) – and Milton's holistic approach to the body

¹⁹³ Galen also comments on the liver's role in producing blood, but unlike Harvey he considered the stomach to be of primary importance, whereas Harvey focused more heavily upon the liver. Don Wolfe also notes that 'no man of the seventeenth century was more remote from Milton's outlook than William Harvey', John Milton, *The Complete Prose Works of John Milton*, vol.4:1, ed. Don Wolfe (New Haven and London: Yale University Press, 1966), p.80. Svendsen agrees, suggesting that 'Milton nowhere betrays any acquaintance with Harvey's discovery', *Milton and Science*, p.179. Svendsen also find Harvey's use of the humours 'traditional and almost always in figurative context', p.179, whilst Milton's use of the humours are anything but figurative.

¹⁹⁴ Whilst Harvey is certainly not an influence upon Milton, Galen's influence is undeniable as his works are referenced within *The Art of Logic*, p.262, 325, and 374, as well as allusions to Galenic theories on p.314.

evidences this by the 'airy light' (V.4) sleep Adam has just experienced. If man and angels are deemed both to eat the same food Milton supposes that they must share 'every lower faculty Of sense' (V.410-11) and Milton's desire to demonstrate the bodies he presents as 'complete' (and functioning because of the unity of their body parts) leads him into listing the shared senses 'whereby they hear, see, smell, touch, taste' (V.411). However, it is not enough for Milton to explore merely the external similarities of the angelic and human forms and he begins to describe the internal workings of the digestive system of angels. We learn how angels by:

Tasting concoct, digest, assimilate,
And corporeal to incorporeal turn. (V.412-3)

This is because:

whatever was created, needs
To be sustained and fed; of elements (V.414-415)

as such, we once again see Milton attempting in his descriptions of the body to be as complete and unambiguous as he can. Milton describes, briefly in this first instance, the passage of food as it enters and is processed within an angel's body so as to demonstrate the physicality of angels by giving them similar anatomical traits to humans. The Galenic model of digestion is adhered to fully, as food first enters the mouth in 'tasting' is then concocted and digested before undergoing assimilation into the body (via the organs Galen would have considered secondary in the digestive process).

The demystifying of the angelic form continues when Raphael, Adam, and Eve:

to their viands¹⁹⁵ fell, nor seemingly
The angel, nor in mist, the common gloss
Of theologians, but with keen dispatch
Of real hunger, (V.434-7)

¹⁹⁵ Milton would later refer again to 'viands pure' in the temptations of Christ by Satan in *Paradise Regained* (II.370). The purity of food, and its passage through both man and angel once again implies a unity in the human, angelic and divine form – but Christ's self-denial once more highlights the significance of the nature of the individual's mind in differentiating between bodies.

Raphael is presented as becoming hungry, and consuming exactly as a human would. It is ‘real hunger’ not the ‘mist’ that Milton perceives theologians commonly to ‘gloss’ when discussing the process of angelic consumption. Therefore, Milton removes from his descriptions of angelic description any sense of vagueness.¹⁹⁶ He is specific and attempts to be seen as ‘accurate’. This ‘accuracy’ combined with Milton’s penchant for demonstrating bodies in full rather than praising their various pieces cause the logical progression that leads him to announce that angels use ‘concoctive heat To transubstantiate’ (V.437-8) their food, and furthermore declares that ‘what redounds, transpires Through Spirits with ease’ (V.438-9). The combination of ‘real hunger’ and ‘concoctive heat’ is once again reminiscent of Galen’s theories on digestion. The ‘concoctive heat’ seems to reference the ‘innate heat’ essential to the Galenic understanding of the stomach, however, Galen also proposed that a state of ‘real hunger’ existed, and explained it by describing the stomach as if it were a separate sentient creature within the working of the body. Galen believed that ‘when the appetite is very intense, the stomach rises up’ and ‘snatches away’ food from the mouth.¹⁹⁷ Thus, Milton’s belief in ‘real hunger’ appears to be more than merely a demystifying of a vague description of angelic digestive faculties but an attempt both to remove vagary and simultaneously provide scientific substance to his own arguments. Ultimately, Milton uses the expertise of others to bolster his own knowledge so that a ‘completed’ image of the workings of angelic, and by proxy human, forms can be presented.¹⁹⁸

¹⁹⁶ Joad Raymond, *Milton’s Angels* (Oxford: OUP, 2010), p.278, notes how Milton ‘used narrative to experiment with angels’ but also how he was not alone in this pursuit, despite never directly engaging with others contemplating the same issues. He suggests that, with regards to angelic physiology, Milton ‘assimilates ‘scientific’ interests only to subordinate them to aesthetic ends’. Raymond also offers an excellent survey of the literary context and background to Milton’s presentation of angelic digestion, p.280ff.

¹⁹⁷ *On the Natural Faculties*, p.271.

¹⁹⁸ Svendsen also links the description of Raphael’s digestion and concoction with his role as a ‘figure of the assimilation of knowledge’, p.187.

There is also the sense that Milton associates the dirtiness of ‘what redounds’ with those he would look to disparage. He moves from discussing the ‘true’ workings of digestion to discussing the ‘sooty coal’ of ‘the empiric alchemist’ (V.440).¹⁹⁹ The transformative image of turning ‘Metals of drossiest ore to perfect gold’ (V.442) has a clear link to the changes that food undergoes in the digestive process, however, whilst the digestive process creates a less pure substance the procedures of the alchemist are presumed to provide the purest of metals, namely gold. Milton is, by way of his comparison, actually attacking the work of the alchemist by literally suggesting that the ‘gold’ they produce is akin to waste matter.²⁰⁰ Thus, whilst Milton is implicit in his approach we see him expounding the values of his own scientific beliefs. Galenic digestion is juxtaposed with alchemic sublimation and Milton disparages alchemy as shamolic by way of its inferiority to ‘superior’ knowledge. Ultimately, Milton demonstrates the failings and falsehood of alchemical knowledge by supposing his own Galenic knowledge to be correct. Thus, the image of Raphael eating, and the seemingly unnecessary level of detail Milton goes into in describing the passage of food through the digestive process is shown to be a necessary demonstration of Milton’s beliefs about knowledge. The complete and holistic approach that both Milton and Galen took towards the body is deemed by Milton to be the correct and scientific manner of approaching the body. Therefore, when presented with another science that claims to be focused upon completion²⁰¹ he swiftly belittles it so as to retain the superiority of his own knowledge and

¹⁹⁹ There is a hint here of Galenic influence since Galen describes the digestive force of ‘innate heat’ as being similar to ‘burning hearths around a cauldron’ in *On the Natural Faculties*, p.255.

²⁰⁰ I use ‘waste matter’ here since Milton’s use of ‘transpires’ suggests that whilst angelic digestion is identical to human digestion in that food is consumed and processed the removal of waste products occurs in a passing of material through the skin rather than in the creation of faeces. This also relates directly to Donne’s use of alchemical imagery in his imagining of a Paracelsian *balsamum natural* within the human body in his sermons (p.37).

²⁰¹ Alchemists often proposed that the reason alchemy was possible depended upon the nature of all metals being linked, where gold was merely the purest form of matter. Thus, alchemists were supposing an holistic approach to the elements by ‘treating’ impurities in metals through sublimations that ultimately ‘cured’ the metals by producing their purest form, gold.

way of thinking. This is not the seemingly ‘open’ scientific debate discussed later in this thesis between Adam and Raphael regarding the nature of the universe and the permissibility of knowledge, but rather a closed attack upon alchemical ‘science’ where no debate is deemed necessary. As we will later see, the debate of Adam and Raphael comes to a subversive conclusion, however, here Milton does not entertain the idea of any truth being inherent in alchemical science and there is no conclusion merely condemnation.

Milton does not merely attempt to understand the ‘human form’ when inhabited by men and angels. The figure of Christ’s body offers another, divine, Miltonic imagining of the ‘human form’. God instructs his Son that he will be ‘man among men on earth,’ (III.283)²⁰² ‘Made flesh’ of ‘virgin seed’ (III.284). Thus, from the outset the Son is at once familiar and yet dissimilar to both Adam and Eve. He is ‘man’ and ‘made flesh’ but produced by ‘wondrous birth’ (III.285). The issue of his being produced from ‘virgin seed’ also causes the Son to be linked not merely to Adam (as a man) but simultaneously to Eve (who we have previously seen to have a ‘virgin majesty’). Thus, he is designed to be a pinnacle of humanity, the ‘man among men’, whilst simultaneously being merely a ‘man among men’.

The duality of the Son’s role and form (the suggestion that he ‘bears no single sense’),²⁰³ is expressed further by God’s speech. He is next instructed that he will be ‘in Adam’s room’ (III.285) and syntactically the enjambment of the line seems to suggest that Adam is then defined as ‘The head of all mankind’ (III.286). However, the following clause seems to contradict this by referring back to the Son as ‘Adam’s son’. Thus, via an unusual syntax, Milton manages to define both the Son and Adam as being the ‘head of all mankind’ and simultaneously defines the Son in the subservient role of ‘son’ within another’s domain.

²⁰² Christ is also referred to as the ‘man of men’ within *Paradise Regained* (I.122).

²⁰³ *Paradise Regained*, (IV.517).

Milton concludes by explaining this duality as within Adam ‘perish all men’ (III.287) whilst the Son offers ‘a second root’ from which mankind ‘shall be restored’ (III.288).

The complicated arrangement by which the Son is simultaneously of mankind and the head of mankind is further complicated by God’s announcement of how sinners will be restored as they shall ‘live in thee transplanted’ and from the Son ‘Receive new life’ (III.293-4). Clearly, this is a metaphorical transplantation – whereby the presence of a man within the Son acts to purify him.²⁰⁴ However, when compared to the creation of Eve this act is significant. The fusing of a man’s body with that of the Son acts to cleanse his soul but equally to give ‘new life’, whereas, in the creation of Eve the removal of the rib and the separation of bodies is seen to give life – albeit, as we have seen a fundamentally flawed life. This image of uniting within the Son once again reinforces the general Miltonic attempt to deal with the unified body as a harmonious entity and the divided body as troubled. The symbiotic companionship of man and God is seen as the ideal manner by which people should attempt to live, and indeed be given life, separation (be it the removal of Eve from Adam’s body or the separation that allows the serpent the opportunity to tempt Eve alone) is for Milton both undesirable and unhealthy. By implication, if uniting with the Son gives life dividing, or refusing to unite, brings death. In this fashion, the Son is both a healer and a cure whilst the lack of the Son and division amongst mankind is, in this instance, a disease. This disease is clearly religious in nature – as those who do not accept grace will be ‘destroyed’ by ‘hellish hate’ (III.300) – but equally the cure is religious in nature. This may seem somewhat obtuse, but as man is born of God the body itself is the work of the divine. Therefore, divine cures and divine diseases make logical sense – particularly when working within the Galenic system of balancing humours. Milton seems to suggest that, in a post-pagan society, God and divinity form a fifth humour within the body. The balancing of this religious humour is

²⁰⁴ See p.40 for Donne’s images of the Church ‘transplanted’ within the body of man to produce both positive and negative effects.

equally essential to the working of the body, and immersing oneself in the Son seems to cleanse by filling the individual with a Christ-like substance.

Owing to the dual form of the Son's body, however, he is not afflicted by the same balancing of divine 'humours'. Milton specifically states this as God reassures the Son:

Nor shalt thou by descending to assume
 Man's nature, lessen or degrade thine own.
 Because thou hast, though throned in highest bliss
 Equal to God, and equally enjoying
 Godlike fruition, quitted all to save
 A world from utter loss, and hast been found
 By merit more than birthright Son of God,
 Found worthiest to be so by being good (III.303-10)

thus, the Son's innate goodness allows him to cure²⁰⁵ mankind by refilling their own goodness, and simultaneously maintain his own as he was so good to begin with that Earthly sins would not tarnish him. The Son's essence is of goodness²⁰⁶ and this can never be imbalanced by humanity's failings.

Whilst the Son has this dual role of God and Man, yet is fundamentally God (and fundamentally good), the issue of what constitutes the body of 'man' is further complicated by the description of Adam's creation. Adam is made 'man in our [God's] image, man In our similitude' (VII.519-20). Thus, the Son will be appearing in the form of man – and is reassured that this does not change his fundamental nature – but simultaneously man has been formed in the divine image anyhow as their 'similitude'. We are, therefore, forced to conclude that – much as with the inherent similarities and fundamental differences between Adam and Eve – the difference between the Son and man is based on their essence. The physical form is clearly similar and the physical functions will work accordingly but the difference is found in how that form uses its functions. Much as Eve distances herself from what her senses reveal whilst Adam draws them closer so as to inspect and filter this

²⁰⁵ *Paradise Regained* suggests that Christ will 'nourish' the people and 'let them soar' (I.230).

²⁰⁶ Within *Paradise Regained* he is termed 'This perfect man' (I.166).

information we now see that the Son will receive information in the same fashion but – as he is designed for sacrifice – will process this information in a different fashion. Ultimately, the main factor that differentiates Miltonic man, woman, and the Son is not the minor physiological differences but the working of the mind in conjunction with the inherent balance of ‘humours’ that defines the nature of the individual.

Therefore, Milton’s approach to the concept of the ‘body’ is clearly complex. Unlike Donne, he focuses upon the body (whether it be human, angelic, or divine) holistically. Milton does not praise the individual functions of the body but rather explores them as parts of an overarching unified entity. When discussing human hearing he uses similar approaches and terms to those he does when exploring sight, thus, creating a unified body of work concerning the work of the senses – whereby each sense is merely a fraction of the complete sensory experience of the individual. Equally, despite avoiding the more unseemly areas of the body (particularly the genitals and methods of excretion) he is forced by the principles by which he understood the body to work, much as Galen was, to describe these things – albeit in fleeting references and platitudinous language. Indeed, even the most significant division that Milton does ascribe to within the body, that of body and mind, is occasionally disregarded in favour of presenting the united majesty of the body as God creates it.

Within *Paradise Lost* we are told that:

Yet not so strictly hath out Lord imposed
Labour, as to debar us when we need
Refreshment, whether food, or talk between,
Food of the mind, or this sweet intercourse
Of looks and smiles, for smiles from reason flow
To brute denied, and are of love the food, (IX.235-40)

here, via the mouth, Milton links many of the areas this chapter has discussed so far.

Refreshment from labour is permitted by God,²⁰⁷ and as such food is discussed as fuel for the

²⁰⁷ The notion of ‘refreshment’ being permissible is intriguing when we consider the ‘thirst’ that Adam will later demonstrate, and be denied, by Raphael.

body (by way of digestion). The food is then metaphorically changed to talk (a second function of the mouth) and talk is deemed ‘food of the mind’ – uniting the workings of the body and of the mind. The mouth is also seen as capable of smiling, and smiles are juxtaposed with looks (thereby once again uniting two of the sensory organs in their action and purpose). These looks and smiles are then seen as communicating not only ‘reason’ but also ‘love’. Within this passage, therefore, Milton holistically links, via the mouth, the internal workings of digestion, the working of the senses, the functioning and reasoning of the mind, the unity of body and mind, the co-dependency of one human to another, and the united functioning of mind, body, and soul. Galen promoted studying the whole of the body, the causes of diseases as well as the cures. He promoted studying the causes of good health so that poor health could be understood. Here, Milton is truly Galenic in his representation of the body – as he values and appreciates the interdependency of each part of the body with every other part of the body and ultimately, via interpersonal relationships and the workings of the senses, with every other part of God’s creation. Whilst we have seen, notably in his approach to the *Commonplace Book*, a willingness to use dissectory methodologies in his presentation of the human form Milton preserves unity as sanctity. As such, it would be foolish to accept Wolfe’s argument that ‘Milton trusted consistently in moral, religious, aesthetic, and political values: not scientific ones’.²⁰⁸ Milton certainly did approach the body with religious and aesthetic values, and his treatment of science (by today’s standards) was *pseudo*-scientific, owing to its Galenic tendencies. However, as we will see in Chapter Five (p.225) this is not true of all of Milton’s scientific interactions. Rather, when dealing with anatomical issues it would seem more accurate to state that Milton trusted consistently in

²⁰⁸ *The Complete Prose Works of John Milton*, vol.4:1, pp.80-1.

religious and aesthetic values but adopted scientific tenets²⁰⁹ that fitted within this belief structure.

The Dissection of Adam and Conclusions.

It would be remiss to neglect in this discussion what is perhaps the most famous anatomical episode in the whole of Milton's canon. The role of the rib in *Paradise Lost* is at once small and yet, paradoxically, great. Ribs are mentioned on four occasions, three times in connection with Adam (and as such Eve) and once in relation to Satan. Whilst they are seemingly such a small part of what is a vast poem, the fact that the entirety of the human race is dependent upon the first woman being made from it gives what seems like a small detail an impressively grand significance.²¹⁰

We are first told the story of Eve's creation from Adam's rib from the perspective of Adam. This initially seems somewhat unusual as he is rendered 'Dazzled and spent' (VIII.457) by God who also closes his eyes and renders him unconscious. Yet, simultaneously Adam is able to see what transpires as God:

open left the cell
Of fancy my internal sight, by which
Abstract as in a trance methought I saw
Though sleeping, where I lay, and saw the shape
Still glorious before whom awake I stood;
Who stooping opened my left side, and took
From thence a rib, with cordial spirits warm,
And life-blood streaming fresh; wide was the wound,
But suddenly with flesh filled up and healed: (VIII.460-468)

The role of seeing within *Paradise Lost* has been explored at length and as mentioned above this chapter will not attempt to enter into the frequently recurring discussions of eye-sight and

²⁰⁹ Galenic 'science' was, at the time of Milton's writing, most definitely still considered science – despite the fact that modern empiricism was gradually reducing its significance within the scientific community.

²¹⁰ For a further instance of Milton offering grand significance to seemingly minor subjects see p.254.

blindness that have been more suitably and more readily approached elsewhere. However, here Adam is witness to his own dissection. Jonathon Sawday has discussed the phenomenon by which mankind becomes engrossed in the internal workings of the human body as by viewing the interior of another we gain an insight into a world that may reflect a hidden, interior, part of ourselves but highlights that prior to the invention of cameras small enough to film the human interior during surgical procedures the only instance in which one would be able to see their own insides is in moments of catastrophe. For an early modern person to see their left side ‘opened’ so that ‘wide was the wound’ they would have to be in some form of immediate peril resulting from a major injury (be it intentional or accidental). However, Adam views his ‘life-blood streaming’ with ‘cordial spirits warm’. This instance of anatomical dissection holds no peril for Adam, despite the fact that it is he who is being dissected. This is of course a reflection of the ‘cell of fancy’ and ‘internal sight’ (whether this be a dream, hallucination, or the working of his imagination),²¹¹ but the calm and over-riding sense of ease in this passage is unusual. We do not feel the excitement of the public dissections as demonstrated in the frontispiece of *De Humani Corporis Fabrica Libri Septem* (**Figure 1**), nor is there an educative stance as if this were a private dissection, and we certainly do not feel the immediate sense of danger and peril that Donne professes when discussing his various illnesses (p.58). We are given a subdued and fundamentally inexplicit view of anatomical dissection. The excitement, danger, and fear we may expect from this scenario is replaced merely with cordial warmth. The blood which might indicate jeopardy is adapted with the adjectival form of ‘life’ so as to nullify the potential for the perception of

²¹¹ The internal sight is also notable as we have seen how Milton tends to site Adam’s sensory experiences within the organs that sensed them. Elsewhere, there is the sense that sensory organs obtain information on the outside world and collect or receive it; but in a fashion whereby the brain and mind are then given the opportunity to determine whether the information is accepted into the body. Here, any sense of intellectual filtration is removed as Adam is viewing through a sight that does not rely on his external organs’ ability to interact with the outside world. As with the rest of the miraculous dissection, Adam is presented as remarkably underwhelmed, adding to the surreal nature of this scene.

hazard. The removal of the rib that is then moulded so as to form Eve is an emotional non-event.

The manipulating of the rib to form Eve, however, is far more expressive. Once God has 'formed and fashioned' (VIII.469) the rib, Eve appears before Adam and the effect is profound:

what seemed fair in all the world, seemed now
Mean, or in her summed up, in her contained (VIII.472-3)

Adam seemed content with and was neither over-nor under-whelmed by the experience of being operated upon (and of watching the operation take place) but upon seeing Eve all of the world's beauty is surpassed and, by the emphatic positioning of 'mean', derided so as to encapsulate her grace. The measure of how bombastic Milton is in his initial description of Eve comes in that having declared all of the world's beauties overshadowed by Eve he immediately modifies his claim so as to suggest that she is equal to the sum total of Earth's beauty rather than so beautiful as to devalue all other beautiful things. The hyperbole in this effusion of praise makes the earlier dissection of Adam seem banal. The fantastical action of causing a miraculous sleep, opening Adam's side, removing the rib, healing the wound, and moulding a woman from this is deemed a poor second to the end product of Eve herself.

Indeed, Adam will later declare that even:

Should God create another Eve, and I
Another rib afford, yet loss of thee
Would never from my heart; (IX.911-13)

determining once more, that it is not the solitary rib that is the cause of wonder but rather the creation made from the rib that Adam finds truly inspiring.

However, this is typical of Milton's approach to the human anatomy. When the body is in pieces, wounded, dissected or in some way 'incomplete' it does not appeal to him. The rib when in isolation is merely a lifeless rib. Milton's poem praises the body as a whole and

unified entity in total contrast to the riotous celebration of dismemberment that we have seen Donne's poetry to revel in.

Whilst the opening and dissecting of Adam's body in order to remove a rib can seem sterile and banal the process by which Satan is reformed into the serpent is anything but. We are told how:

His visage drawn he felt to sharp and spare,
His arms clung to his ribs, his legs entwining
Each other, till supplanted down he fell
A monstrous serpent on his belly prone,
Reluctant, but in vain, (X.511-15)

and unlike Adam's operation, which was a separating of the body, Satan's mutation is one of fusing the body. It is a painful action that is 'sharp and spare', rather than willingly watching a rib leave, as Adam did, Satan 'clung to his ribs' as we see his limbs mutilated into the form of a serpent. He 'fell', becoming a 'monstrous serpent on his belly prone' and, unlike the consenting Adam Satan is 'reluctant, but in vain'. The graphic nature of the description is both disgusting and pleasurable as we see Satan experience some form of heavenly ordained justice.²¹² The differences between this instance of bodily mutilation and Adam's are clear. However, the logic behind the two descriptions is the same. We are given emotive descriptions when we are dealing with a full, complete, physical form and impassive ones when dealing with a partial one. When Adam is being operated upon he is incomplete and Milton's language is muted only to become bombastic in its tone when we are presented with the completed form of Eve. Equally, as Satan is completing his own transformation (from favoured angel, to fallen angel, and finally to serpent) we are again presented with an emotionally charged vocabulary. Milton is comfortable praising and discussing in emotive

²¹² Joseph Wittreich, Jr, ed., *The Romantics on Milton* (Cleveland: Press of Case Western Reserve University, 1970), p.106, cites Wordsworth's response to the transformation as 'unworthy of his genius' and owing to 'Milton's fondness for the Metamorphoses', taking particular dislike to the fact he felt this image could only 'excite disgust'. Richard J. DuRocher is less disgusted by the image, merely noting that this is part of 'the breakdown of Satan's heroic appearance' in *Milton and Ovid* (Ithaca and London: Cornell University Press, 1985), p.115.

terms the completed form but far less so when that form is in pieces. Satan is not being torn apart but fused together and this is crucial to Milton being able to discuss the action vividly. It would be patronising to term Milton squeamish but he demonstrates a clear interest in the human (demonic and indeed angelic) form when it is whole unlike Donne who revelled in blazoning it. For Milton the beauty of the human form was not in its component parts but rather in the combination of those components.

As such, it is clear that Milton's use and understanding of anatomy was not driven by strict accuracy. Rather, Milton took an approach to the body that reveals his classical education, biblical understanding, and his aesthetic approach. For Milton the human body was the creation of God and, therefore, segmenting the body and examining it as if it were a collection of parts was not a satisfactory, or acceptable, approach. Instead, Milton took to describing the unity of the body as a complete form. Owing to this holistic approach, he was often drawn into discussions of areas of the body that his sensibilities would have had him ignore (such as digestion). However, as his main philosophical stance with regards the body was that it demonstrated the wonder of God's creation he persists in, briefly, approaching even areas of the human body that he would rather have avoided.

It is this reliance upon philosophical and religious beliefs when describing the body that is the main cause of Milton's vividly different presentation of the male and female form. Not only did his understanding of his own society guide the figures he described but his societal biases guided which areas of science he was willing to incorporate within his works. The study of the *Commonplace Book* has made clear that Milton understood the processes and practices that were essential to the renaissance anatomist but he demonstrates an unwillingness to apply these practices within his artistic works. Within his artistic works Milton is highly selective in the scientific theories to which he will subscribe and most often

he aligns himself with those theories that offered an aesthetic appeal – rather than a strict scientific accuracy.

Therefore, Milton demonstrates an implicit awareness in the significance of modern science. He is aware of modern surgical practices (and is willing to apply them to the knowledge contained within books) but prurience and aesthetic concerns restrict him in allowing these practices to be applied to actual ‘bodies’. By selecting which scientific material he will use, and therefore promote, based upon aesthetic, religious or philosophical concerns Milton betrays his awareness that scientific knowledge is becoming a separate branch of human understanding. Artistic pursuits, such as poetry, were clearly accepted as being different to empirical studies, such as science. However, Milton (and Donne) both resist the (now common) genrefication of knowledge that would curtail the use of explicitly scientific material within an explicitly artistic form. Despite this resistance, Milton’s ability to choose which scientific theories he will promote reveals an awareness that he can, unlike a scientist, choose which ‘truth’ and which ‘knowledge’ is correct for reasons outside of facts and empirical data. This does not imply a hierarchy between the various branches of knowledge. Nor does it imply that knowledge was already bound by genre. It does, however, establish that Milton – whether he consciously realised it or not – was part of the movement that began to acknowledge and accept differences between the manner by which scientific reality and artistic reality could be portrayed.

If we consider Valverde’s image of the self-flagellating corpse, **Figure 4**, it becomes clear that this acceptance was not merely being made in literary circles. Images of men carrying their own skin are not uncommon within renaissance art, but most often these are depictions of St Bartholomew. Thus, the Valverdean image has a decidedly religious undertone. When we also consider that the image is expressly scientific (being in a scientific text book), subtly religious (with its links to the iconography of St Bartholomew), and

simultaneously artistic, or at least aesthetic, it becomes clear that there was a growing number of people accepting and acknowledging that, whilst knowledge and understanding was not yet so compartmentalised as to remove the opportunity to act in an interdisciplinary fashion, to attempt to capture art, science, and religion within one work was becoming an interdisciplinary pursuit.

As we will see later in this thesis Milton uses the artistic space of *Paradise Lost* to invoke a discussion of modern astronomy and religiously accepted astronomy, and this too betrays a knowledge that various disciplines were forming within the bounds of human understanding and that the various pressures and passions of people pursuing each of these disciplines were creating a system of knowledge which was becoming increasingly dependent upon the workings of genre.

Milton's understanding of anatomical science is in many ways not merely a reflection of his own conservative and religiously minded approach to knowledge, but rather an expression of how art can use scientific knowledge selectively in order that an artist may promote their own ideals without seeming to compromise the 'truth' of what they are saying. Essentially, Milton does not admit to knowledge being divided, but exploits the emerging classifications and genres of understanding to promote his own world view. Milton's anatomies are aesthetic representations based upon outmoded scientific models but he can create these without risking the authority of his narrative voice because of the neoteric acknowledgement of genres within human knowledge.

Chapter Three: Geographic, Cartographic, Navigational, and Astronomical Imagery in Donne's pre-1609 Works.

In common with the trends suggested by the studies of anatomical traces throughout the works of Donne and Milton in chapters 1 and 2, Donne continues to take a contrasting approach to knowledge and its dissemination from that employed by Milton when discussing astronomical and geographical subject matter. As we will later see in depth, Milton engaged explicitly with the sciences of his era. He created imagined academic debates within *Paradise Lost* (notably between Adam and Raphael) and argued based upon logic for the promotion of certain theories as well as constantly debating the permissibility, within a Christian moral framework, of such curiosities and the desire to discover. Donne's pre-1609 works show none of this trepidation. Even when in *Biathanatos* Donne expressly discusses astronomy adhering to the Aristotelian tradition and the new found discoveries of Kepler he does not choose to explore this knowledge as if it were a body of theoretical concepts that can be challenged and revised but rather treats Kepler's advances as if their very revolutionary nature gave them express authority. The case of astronomical science appearing within *Biathanatos* is, of course, a highly intriguing situation for a study of the interaction of science and other branches of knowledge – particularly when authorial self-presentation is to be considered. Therefore, this chapter will begin by attempting to explain the influence of Kepler upon Donne's earliest works. With the significance of Kepler clarified, the chapter will then move towards demonstrating the inherent dependency that Donne creates between the astronomical and geographical sciences.

The figure of Ptolemy, as will be later explicated at length in chapter five 'Astronomy and Knowledge in Milton's Works', is key to understanding the unity of astronomy and geography within the Renaissance. This is particularly true when we consider Donne's

interest in these subjects. Donne's work is renowned for its interest in paradox and Ptolemy's writings form a clear paradox of their own. His *Physics* was, by the time of Donne's life, an established but outdated text. In its dependency upon geometry and optical observations (without the mechanical aid of devices such as the telescope) the work which had by this point garnered widespread acceptance within the church, and as such a seemingly unquestionable legitimacy, was very much a retrograde example of the astronomical art. *Physics* can be perceived, by the time of Donne, as a work that obstructed the future path of astronomical science. With the support of the Catholic Church *Physics* hindered the acceptance and growth of the works of Copernicus (and later Galileo). Ptolemy's treatise promoted an untruthful sense of the stability of knowledge, owing to its historical precedence, in a world where science was rapidly disproving this uniformity and creating an ever more accurate (and thus ever more dislocated and dislocating) image of the universe. However, whilst Ptolemy's *Physics* was obstructing the future path of scientific discovery, his *Geographia* was very much a progressive force within academic thought. Anthony Parr has demonstrated that:

the recovery of Ptolemy and classical geography was part of a progressive movement, since it replaced the Christian medieval *mappa mundi* with a more empirical image of the earth's surface, and – most important – the mathematical emphasis of Ptolemy's *Geographia* became part of the new science.²¹³

And, therefore, Ptolemy's methodologies at the very least can be perceived as revolutionary within renaissance geography. The paradox of Ptolemy's 'scientific' (or pre-scientific) writings is also made abundantly apparent by Parr's summation. Whilst as an astronomer, Ptolemy's work is religiously accepted and scientifically outdated, as a geographer, Ptolemy's methods and work are both advanced and religiously reformist.

With a background of 'scientific' literature that mirrors the paradoxical mannerisms of Donne's work so closely it is understandable that Donne would adopt and adapt this

²¹³ A. Parr, 'John Donne, Travel Writer', *HLQ*, 70:1 (March, 2007), 61-85, p.79.

paradox within his own work. It is this adoption of knowledge that creates a unity between Donne's images of geography and of astronomy and these are never more apparent than in Donne's images of the Sun. By an examination of Donne's earliest usages of the Sun the inherent dependency of geographical and astronomical sciences within Donne's conceptualisation of knowledge will become more readily apparent.

The chapter will next turn to an area within Donne's earliest works that offers a potent insight into Donne's conceptualisation of knowledge and understanding via a single geographical image. This study will attempt close reading of Donne's conceptualisation of 'India',²¹⁴ so as more closely to understand how Donne perceived the 'new' knowledge gathered by explorers to interact with more established branches of understanding. For Donne, 'India' is rarely a mere territory, or as has been suggested a mere byword for exoticism. Far more often it is a highly conceptualised symbol representative of physical wealth, moral standing, exoticism and mystery, the failings of ceremony and indeed a metaphor for Donne's understanding of his own artistry. The study of Donne's 'India' will be punctuated by attention to the *Principal Navigations* of Richard Hakluyt. Parr has already demonstrated the significance of Hakluyt's work in relation to 'The Storm' and 'The Calm', noting that:

In 1597, Richard Hakluyt was completing his trawl for materials for a second edition of the *Principall Navigations*, and was engaged in negotiations to include an account

²¹⁴ It is worth briefly discussing exactly what Donne is referencing when he discusses 'India' and the 'Indies' since there are six English terms which could, to some extent, be seen to be covered by these lexical choices (the *OED* notes India, Indies, West India, West Indies, East India and the East Indies separately). Whilst lexically similar, each phrasing had a distinct land mass (or masses) to which it related. However, whilst works such as Hickock's translation of *The voyage and trauaile of Cæsar Frederick... into the East India, the Indies, and beyond the Indies* (1588) confidently use each term to relate to different areas the same cannot be said for Donne. Possibly owing to a lack of first-hand experience of South-East Asia, Donne amalgamates these terms within his works so as to make precise identification of which area he is discussing difficult (and in some cases impossible). It is possible, in some instances, to divide those areas to the west and those to the east (and when applicable I have done so) but even this is not always achievable. Donne's presentation is more akin to an imagined 'country' that draws on elements from the various published descriptions of each of these areas. We are presented with an 'India' of Donne's imagining, and the sense that the limitations within his knowledge of the physical geography that has inspired his poetic references are key to the presentation he then proffers. It could be argued that a lack of detailed knowledge on Donne's part translates to additional creativity, wit and imaginative potential.

of the Cadiz expedition of 1596, on which Donne had gone as a gentleman-volunteer.²¹⁵

This thesis, therefore, will avoid these two particular poems but still aim to build upon this work by expanding the study of the influence of the *Principal Navigations* (and the advancement and interest in geography, exploration, and discovery as a ‘science’ that they represent). Hakluyt’s work has great significance to an attempt to contextualise Donne’s presentations of ‘India’. In attempting to understand Donne’s conceptualisation of the ‘India’, Raleigh’s *Discoverie of Guiana* will also be consulted.

Having approached the topic of ‘India’, the second major colonial interest of Donne’s early career, namely America or the ‘New World’, will be investigated. As we will see, the Indies and the Americas are more than mere geographical locations within Donne’s imagining. Rather, these are emblematic of the power of discovery and the expansion of human knowledge. The geographical discoveries relating to these land masses is, within Donne’s understanding, akin to the discoveries that were made within the cosmos by astronomers (or those discoveries we have seen earlier in this thesis made within the human body by anatomists) – all three areas represent empirically observed, scientifically described new areas of understanding that must be imaginatively processed so as to become fully incorporated into an artistic text. Donne’s emotional response to America fluctuates greatly throughout his work. If the ‘Indian’ images demonstrate Donne’s capacity for variation upon a theme, and his highly developed understanding of knowledge as being inherently changeable, then his American images (as this chapter and the next will seek to demonstrate) display Donne’s ability for sheer poetic capriciousness. Donne can in one instance be

²¹⁵ Ibid, p.61. It is worth noting that the account of the Cadiz expedition was repressed soon after the publication of the *Principal Navigations*, probably requiring the withdrawal of the entire volume and its republication with the Cadiz Expedition account redacted.

enamoured with the 'New World', and in the next despise it. This thesis will attempt to understand the essential volatility of Donne's thoughts on this matter.²¹⁶

Finally, the chapter will conclude (as indeed will the following chapter) by discussing Donne's persistent images of mankind as being 'a little world made cunningly.' These images show Donne to be reversing the colonising interest that his images of 'India' and America display. In those, mankind is exploring outwards into the world so as better to understand it and so as better to acquire knowledge. In Donne's images of mankind as a world the exploration is an internal one. Donne's introspective exploration can be termed his greatest and most complex attempt to understand and garner knowledge since he perceives himself to be exploring, in the form of humanity, a world far more complex than the external world that he has elsewhere attempted to comprehend. In essence, knowledge of the self (and the world within him) becomes, for Donne, far more unstable and elusive than knowledge of the world around him.

Donne's Earliest Interest in Kepler.

The first significant work to discuss Donne's interest in astronomy was that of Charles Coffin. Coffin proposed a scheme of Donne understanding and admiring astronomers and their advancements most notably the Copernican understanding of the universe.²¹⁷ This is a position that has been readily disputed, particularly by Louis Martz who perceived a more tempered reaction from Donne with regards to the new science. Martz, far from Coffin's belief that Donne revelled in the new astronomy, felt that Donne viewed such things with a

²¹⁶ Whilst it is impossible to ever fully understand the reasoning behind an individual's opinion, in the case of the fluctuations that Donne demonstrates with regards to his opinion of America, it is hard to ignore the erratic mood swings caused by his melancholy as possibly being a contributing factor (see p.45).

²¹⁷ C. Coffin, *Donne and the New Philosophy* (New York: The Humanities Press, 1958).

rational awareness that would have termed the new discoveries to be intellectual curiosities.²¹⁸ Frank Kermode would later go further, claiming that Donne displays an awareness of ‘the imperfection of the human intellect’.²¹⁹ I would propose, however, that when Donne’s texts are read in a chronological fashion, all three of these positions are accurate representations at various points within Donne’s career, leaving these works to be only partial explanations when the duration of Donne’s career is considered. Furthermore, Donne can be seen to take on these various positions selectively. Donne uses astronomical works, therefore, not merely out of a desire to express a subject that beguiled him, as Coffin would have us believe, nor as mere curiosities, as Martz proposed, nor even as a warning against the imperfection of human understanding, as Kermode has suggested, but rather to demonstrate a personal conception of knowledge. Donne’s use of astronomical knowledge acts to give us an insight into an early-modern personal mastery of the enthralling, intriguing, and unstable nature of knowledge.

As has been stated elsewhere in this thesis, one of the key factors in dividing the work within these chapters into those pre- and post- 1609 is the fact that Kepler’s *Astronomia Nova* was first published in this year. It may seem somewhat odd that the work of a German astronomer might figure so highly within the methodological decisions surrounding the work on Donne within this thesis but there can be little doubt that Kepler is a key figure in understanding the astronomical images of Donne’s work. Moreover, there can be even fewer doubts that *Astronomia Nova* is unquestionably ‘Kepler’s main work’.²²⁰ Within this work Kepler offered ‘a monumental revision and extension of the astronomical knowledge of his

²¹⁸ Martz, *The Poetry of Meditation*, pp.242-3.

²¹⁹ F. Kermode, *John Donne* (London: Longmans, 1957), p.13.

²²⁰ T.S. Jacobsen, *Planetary Systems from the Ancient Greeks to Kepler* (Washington: The University of Washington Press, 1999), p.172.

day'.²²¹ Furthermore, the radical nature of Kepler's work can be determined by the suggestion that:

To accept Kepler's views in 1610 was as difficult as to accept Einstein's in 1916. In each instance very few men had the background to do so, and still fewer cared to do so.²²²

What must be noted at this point, however, is that whilst Kepler is undoubtedly one of the most influential astronomers in the history of science, he was equally of a 'deeply mystical temperament'.²²³ Kepler published prolifically and much of what he published was hardly scientific. It is perhaps a combination of the revolutionary nature of Kepler's work and the tendency towards mysticism, which Kepler regularly displayed, that drew the attention of Donne. Kepler was both at the forefront of astronomical science and simultaneously an anomaly within the scientific world. His theories have proved to be crucial to our modern understanding of the universe but at the time were so revolutionary as to isolate Kepler within a scientific community that should have praised him. Kepler was, owing to his penchant for somewhat peculiar intellectual pursuits and the vast progression that his discoveries represented, somewhat of an outsider to the mainstream of the scientific community. Perhaps then it is unsurprising that this unusual genius disregarded by many of his peers (indeed even Tycho Brahe, Kepler's mentor, was unaccepting of some of Kepler's beliefs) should come to the attention of Donne.

In 1608-9 Donne's melancholy seems to have been causing a particular strain upon him. Isolated from London life, he resided at Mitcham. Donne's time here was far from a happy one; he famously complained of his 'poor library'²²⁴ and 'came to refer to the house

²²¹ Ibid.

²²² Ibid, p.173.

²²³ Ibid, p.172.

²²⁴ J. Stubbs, *Donne: The Reformed Soul* (London: Penguin, 2007), p.207.

variously as his 'prison', 'dungeon' and 'hospital'.²²⁵ It was at this time that Donne wrote *Biathanatos*, his text arguing for the potential that self-homicide might not be sinful owing to the presentation of Christ as a 'prime model' of legitimate suicide.²²⁶ Within the marginalia of this text Donne included an explicit reference to Kepler's *De Stella Nova* (1606) citing:

Kepplerus de Stella Serpent. cap. 23.

This note can often appear obtuse in its surroundings. A text written by a mentally unwell man that aims to justify (by biblical means) the case for sinless self-murder is hardly the first place one would look for evidence of the impact of revolutionary texts that would shape the future path of astrophysics. Yet when viewed from this biographical approach, the reference immediately seems more comprehensible. Furthermore, when we consider that Donne and Kepler are remarkably close contemporaries (Kepler being born in 1571, Donne less than 6 months later in 1572, Kepler died in 1630, Donne four months later in 1631) that Donne was a 'man of very extensive and various knowledge',²²⁷ having studied at Oxford and also at Lincoln's Inn, and that as a writer Donne had a great desire to 'shew [his] learning'²²⁸ then perhaps the reference becomes again more easily comprehended.

It is notable that in Donne's reference he uses an amended form of Kepler's title (the full title being *De Stella Nova in pede Serpentarii*). This may reflect that Donne at the time of writing had a 'poor library' and since Kepler's work was published whilst Donne was abroad Donne may have accessed the book on his travels and been referencing from memory. However, the title that Donne ascribes to Kepler's work indicates the features of Kepler's discovery that were of interest (and as such noted to memory) by Donne. Donne's partial

²²⁵ Ibid.

²²⁶ T. Docherty, *John Donne Undone* (London: Methuen, 1986), p.136.

²²⁷ S. Johnson, 'Metaphysical Wit', in F. Kermode ed., *Discussions of John Donne* (Boston : D.C. Heath and Company, 1962), p.8.

²²⁸ Ibid, p.7.

citation, used to create authority for the claims made in the full body of the text, reveals two key aspects of Donne's thinking. Firstly, Donne has noted the two key elements of Kepler's discovery, namely that it is a star and that it is within the constellation of Ophiuchus (the serpent-bearer). Secondly, Donne has used his reference to Kepler to disprove Aristotle's notion that the heavens are immutable. Given that Tycho Brahe had published *De Nova Stella* in 1573 detailing his observation of a further 'new star' it is telling that Donne should reference Kepler's work rather than Tycho's.

The reason for choosing Kepler's star may simply be that Kepler's work, being more recently published, was more apparent in Donne's mind at the time of writing. Equally, Donne may not have come into contact with Tycho's work though, for an educated man of this period who displayed an interest in astronomy, this would be unusual (and indeed Donne mentions 'many experiences of new stars'²²⁹ in his text).²³⁰ Since Donne is using this reference to counter Aristotle's theories both texts would be highly relevant to his argument since both authors specifically demonstrate how their findings are in direct opposition to Aristotle's belief in an immutable firmament. Therefore, it seems most likely that Donne has chosen to reference Kepler rather than Brahe (or indeed both texts) owing to the newness of the text. Marjorie Nicolson has noted how:

By the time the star of 1604 appeared, the controversy which had raged so long had become less violent, and the majority of thoughtful scientists had been forced to the conclusion that the Aristotelian hypothesis of an immutable heaven was untenable.²³¹

And, therefore, for Donne to rely upon Kepler, rather than Brahe, shows a distinct interest in presenting a literary persona that was cognisant of the most modern developments within academia. Kepler's work, at the time of Donne's writing, was both innovative and, since

²²⁹ J. Donne, *Biathanatos*, ed. J.W. Hebel (New York: The Facsimile Text Society, 1930), p146.

²³⁰ O.P. Titus has asserted Donne to have known the writings of 'Copernicus, Kepler, Tycho Brahe, Galileo and others'. O.P. Titus, 'Science and John Donne', *The Scientific Monthly*, 54:2 (February, 1942), 176-8, p.176.

²³¹ M. Nicolson, 'The "New Astronomy" and English Literary Imagination', *Studies in Philology*, 32:3 (July, 1935), 428-462, p.434.

Donne had referenced the text so soon after the original's publication, unchallenged. By evoking a modern and as yet unquestioned text rather than the older work of Brahe, Donne simultaneously achieved authority for his own work (by referencing unchallenged scientific works) and maintained the revolutionary tone of his own arguments. That Kepler's star related to the 'serpent-bearer' also has a certain artistic irony too, since the serpent (so often an image of Satan within Christian iconography) is being used as justification for a blasphemous argument that claims 'Self-homicide is not so naturally sin, that it may never be otherwise'.²³² Undoubtedly this irony would have appealed to Donne's sense of humour.²³³

Therefore, Kepler's 'new star' provided Donne with a continuation of the radical tone of his work, provided authority, and simultaneously held an artistic irony that would no doubt have been pleasing to Donne. All of these features are telling in an attempt to understand Donne's perception of knowledge. Donne's decision to use radical science as justification for radical prose seems to be a decision that requires little explication, however, his use of scientific literature as authoritative in support of artistic literature is intriguing. Donne has artificially created (or more likely accepted) a hierarchy within the nature of knowledge. In Donne's hierarchy the authority, or worth, of knowledge is judged according the subject area that the knowledge is nominally deemed to adhere to. Kepler's scientific discoveries are the authority against which Aristotelian authority can be challenged. Donne argues against 'Aristotle's followers' for 'defending the heavens to be inalterable' because 'in so many ages nothing had been observed to have altered' despite the fact that the discovery of the new stars has meant that 'the reason which moved Aristotle seems now to be utterly defeated'.²³⁴

Donne deems Aristotle's 'ancient science' to be less authoritative than Kepler's 'modern

²³² J. Donne, *Biathanatos* frontispiece to the 1648 edition.

²³³ Donne would, in his sermons, later refer to Christ as the 'crucified serpent' further complicating his interpretation of the religious iconography of the serpent.

²³⁴ *Ibid*, p.146.

science', and moreover Donne associates Aristotle's science with Biblical knowledge.²³⁵

Donne uses the case of Aristotle's followers believing him despite the newly discovered stars as a mirror of Saint Augustine's 'disciples' following Augustinian teachings despite the actions of the Church with regards to 'divorce' and the instance of whether 'a woman might not sue it against her Husband'.²³⁶ Therefore, within the space of a single paragraph, Donne moves from an example of the modern Church's rulings to the beliefs of Augustine's followers (believing the followers to be wrong since they hold convictions that are deemed to be out-dated) and this scenario is in turn paralleled with that of Aristotle's followers believing Aristotelian doctrine despite the actions and discoveries of modern scientists. In this manner Donne creates a hierarchy amongst various 'types' of knowledge. Donne positions what is modern above what is ancient, in both his religious and scientific examples, and emphasises the unity between the two modern ideas and the two ancient ones by juxtaposing the ancient ideas and by introducing and ending his argument with modern ideas. Thus, Donne creates a sense of the persuasiveness of modern thought through the cyclical structure of his writing.

Donne opens with the authority of modern church teaching, offers the supposedly out-dated older biblical teaching, juxtaposes this with outmoded science and ends this section of the text by returning to the authority of 'modern knowledge' with the science of Kepler. Simultaneously, Donne positions science as more authoritative than religion. Scientific knowledge can be deemed the authority in this case since Donne uses it as the analogy that proves his religious thesis. That Donne should strengthen an argument in which he displays an instance of faulty logic within religion by comparing it to an instance of flawed logic in a scientific scenario reveals his assumption that the readership will be more immediately drawn into observing (and agreeing with the presence of) failed logic of the scientific example, and

²³⁵ It is probably owing to the Church's acceptance of Aristotle's works that Donne positions Aristotle in such a fashion.

²³⁶ Ibid.

thus be more easily persuaded of the religious example that it is deemed to be synonymous with. In this manner Donne artificially suggests that ancient thought is subservient to modern thought, and that religious thought is second to scientific in terms of authority. By including both branches of knowledge within the same text, he also suggests that literature (or at least prose literature) can have a position outside of this hierarchical structure. In this instance Donne displays a belief that literature can present the arguments of both scientists and churchmen within the same framework and therefore that his literature is outside of the battle for authority that he has portrayed between scientific and religiously accepted knowledge. Literature (particularly philosophical work or discourse work) such as *Biathanatos* is shown to be capable of bringing together varied aspects of knowledge without the need to interact with the various understandings displayed within them. Donne's work presents a hierarchy of knowledge and, simultaneously, determines that it is possible to write prose that is both dependent upon this hierarchy (in order to determine authority) and yet outside of the hierarchy (by being given the vaunted position of overseeing and collating all branches of knowledge).

It is worth noting, that whilst Donne is interested in using scientific knowledge in order to establish authority, he is not limited by an adherence to science and scientific authority. In a passage very shortly after the one previously discussed, Donne discusses moon-light. Donne deems moon-light to be 'the light of nature' and since the moon is 'unequall' and 'various'²³⁷ he deems that nature itself is unequal also. Donne argues this so that he may justify not only the changeability of nature but so that he may also demonstrate that even if suicide were forbidden by natural law at the time of man's creation this may not be the case now (as natural law would be as changeable as the nature it governs). Given that Donne had so recently embarked upon an argument supported by astronomical theory it

²³⁷ Ibid, p.153.

would seem sensible that a further argument involving an astronomical subject should also involve a discussion of the science of astronomy. However, given that the scientific basis of moon-light was established by Pythagoras (who revealed it to be a reflection of the Sun's rays through geometric proofs) it is perhaps unsurprising that Donne chooses to ignore it. We have seen Donne to be dismissive of ancient scientific theory in favour of modern understanding, and here he ignores science entirely (despite it being wholly appropriate) potentially owing to the age of the science involved. Donne, therefore, demonstrates further a desire to denigrate older knowledge, implying again a favouring of modern theories.

This reference also allows for us to establish Donne's favouring of knowledge that is gained by optical observation over other methods of gaining understanding. Donne's example of the moon's changeability is expressed without referencing scientific texts to 'prove' the thesis since the evidence of the moon as inconstant is openly available for the reader to observe. Donne does not need to reference scientific knowledge here, since the reader's personally gathered observations of the workings of the world are a more powerful authority. This too helps to explain why it is that modern science is deemed more authoritative than ancient in his use of Kepler's *De Stella Nova*. Kepler's discovery is based upon observation. It is through 'experiences' of new stars that the ancient understanding has been surpassed. Thus, at this point in his career, Donne displays a preference not only for new knowledge over old, and for scientific authority over biblical but also for observable empirical results over accepted knowledge. As such, Donne demonstrates a belief not only that knowledge is gathered through the senses, but that this knowledge obtained by the individual's own senses (particularly by sight) is authoritative over knowledge that is obtained through an intermediary (or teacher).

Donne's belief in the notion that knowledge is gathered by the senses, rather than created in isolation in the mind, is expressed most clearly within his earliest prose work

Paradoxes and Problems. Donne declares in Paradox VI:

My body licenceth my Soule to see the Worlds beutyies through mine eyes, to heare pleasant things through myne eares, and affords it apt Organs for conveyance of all perceivable delights.²³⁸

He then, having determined that his sensory organs play a primary role in understanding the world outside of himself, announces:

This perfection then my body hath, that it can impart to my mind all her pleasures, and my mind hath this maim that she can neyther teach my indisposd parts her facultyes, nor to the parts best disposd shew that beuty of Angels or Musicke of Spheres, wherof she boasts the contemplation.²³⁹

There is of course an element of tongue-in-cheek apparent in Donne's sentiment. Evelyn Simpson has noted that Donne's *Paradoxes* were not 'published till after his death' being instead 'circulated in manuscript among his particular friends' and that he 'expressed a wish, when sending some of them to a friend, that no copy should be made of these or any other similar compositions'. Simpson understood this to demonstrate how Donne even 'as early as 1600... felt some anxiety lest his reputation should be damaged by their [the *Paradoxes and Problems*] levity'.²⁴⁰ Michael Mccanles has gone further still, suggesting we are 'simultaneously aware both of their [the *Paradoxes*] internal (though sophisticated) consistency and of their inconsistency with reality', since Donne seeks to demonstrate that 'the mind is capable of making arguments which have a certain self-consistency but which yet reach conclusions manifestly violating common-sense reality.'²⁴¹ A.C. Partridge, however, whilst

²³⁸ J. Donne, *Paradoxes and Problems*, ed. H. Peters (Oxford: Clarendon Press, 1980), p.11.

²³⁹ Ibid, p.11-2.

²⁴⁰ E. Simpson, 'Two Manuscripts of Donne's *Paradoxes and Problems*', *Review of English Studies*, 3:10 (April, 1927), 129-45, p.9.

²⁴¹ M. Mccanles, 'Paradox in Donne', *Studies in the Renaissance*, 13 (1966), 266-87, p.267.

agreeing that ‘Donne’s versatile knowledge and verbal dexterity were admirably fitted for [the] liberated style’²⁴² that is apparent throughout the work, does not go as far as Mccanles in expressing the illogical elements of the work. I would be inclined to agree with Partridge in this, and disagree slightly with Mccanles. It is true that the *Paradoxes and Problems* display an internal consistency, though they are not ‘manifestly violating common-sense’. Rather, the central thesis of each Paradox or Problem is designed to be contrary to what is commonly believed, but surrounding this central theory (which it is true should be viewed as incongruous with reality) there are definite notes that adhere to ‘common-sense’. Donne uses these side issues and assumptions to give a façade of authenticity to his more provocative central ideas. Despite there being a certain level of intellectual grandstanding in the various arguments that Donne undertakes in the work, within Paradox VI Donne is making a point that is supported implicitly by his other early writings. The ‘perfection’ of Donne’s body (and implied imperfection of his soul) may be intended as a humorous note, however, Donne is again promoting the senses as a tool for the individual to access knowledge about the world. Much as with the preference for empirically obtained scientific knowledge, which we have noted within *Biathanatos*, here Donne values the senses as being intrinsically related to mankind’s ability to understand his surroundings. Furthermore, Donne’s passage could be seen to make, once again, a partial reference to Kepler’s work. Noting the ‘Musicke of spheres’ could be indicative of Donne’s knowledge of the works of Pythagoras but is equally suggestive of Kepler’s 1596 work *Mysterium Cosmographicum*.²⁴³ Within *Mysterium Cosmographicum*, Kepler lay down, amongst other things, ‘analogies between the

²⁴² A.C. Partridge, *John Donne: Language and Style* (London: Andre Deutsch LTD, 1978), p.18.

²⁴³ It would seem likely that Kepler is the source of Donne’s reference since Kepler was using geometric proofs and ratios to demonstrate the presence of God. Kepler also ascribed certain discoveries revealed in the text to divine intervention and the juxtaposition of a Christian belief structure and proportionality between the celestial bodies is heavily suggestive of *Mysterium Cosmographicum* being Donne’s source material.

proportions in the solar system and various musical intervals'.²⁴⁴ Donne is here in 'contemplation' of the heavens (as is apparent through his reference to 'Angels') and juxtaposes this contemplation of the biblical heavens with thoughts of the astronomical heavens. It is the same formula that he later used within *Biathanatos*, uniting the physical and spiritual heavens (both the scientific and the religious) within close proximity so as to make philosophical (or here pseudo-philosophical) points with the aid of both religious and secular branches of knowledge.

A more readily recognisable reference to Kepler within the *Paradoxes* can be found within Problem X. Simpson has noted that the extant manuscripts within which this Problem is contained are clearly corrupted by errors. She notes that it is only two manuscripts, one of these being the 'remarkably inaccurate'²⁴⁵ Phillips MS., that read 'Kepler' in place of the 'mysterious Re---- of the editions'.²⁴⁶ Within this 'Problem' Donne sets out to question why it is that 'Venus starre onely doth cast a Shadowe?'²⁴⁷ The 'Problem' has particular relevance to this thesis since Donne, or at least the persona he embodied as narrator of the work, begins by defining the role of the astronomer as he perceived it. For Donne an astronomer is someone whose 'profession it is to see that nothing bee donne in heaven without theyr consent'. As with *Biathanatos* Donne seeks to create authority for his opinion by referencing

²⁴⁴ Jacobsen, *Planetary Systems*, p.75.

²⁴⁵ E. Simpson, 'More Manuscripts of Donne's Paradoxes and Problems', *The Review of English Studies*, 10:40 (October, 1934), 412-6, p.414.

²⁴⁶ Ibid. Simpson identifies how 'Ripler' and 'Kepter' are used in other manuscripts but that context determines the Phillips manuscript to be correct. The misspellings may also be notable in offering this study an insight into the awareness that less learned figures had of Kepler. Given the remit of a type setter this mis-transcription may be a mere oversight; however, as the typesetter was unable to identify correctly (given the context) a misspelling of 'Kepler' it would suggest that his fame amongst the general public was not significantly high. Whilst human error may account for one mistake, that the mis-transcription occurred twice (and in the more 'reliable' and 'accurate' manuscripts) might suggest either a reusing of an already faultily transcribe manuscript or that significant numbers of the population would have had insufficient knowledge of Kepler to associate his name with his work. Whilst it is more likely that these are errors replicated from a shared source manuscript the mistake still demonstrates that those replicating the error were as incapable of correcting it as the originator of the mistake.

²⁴⁷ *Paradoxes and Problems*, p.33.

that this opinion is ‘as Kepler sayes in himself of all Astrologers’,²⁴⁸ but furthermore, the authority of the astronomer is also denoted implicitly by the notion of ‘consent’. Within this definition, Donne has given the astronomer a level of power and control over the heavens that had previously only ever been ascribed to God. Since the astronomer is now the figure who may ‘consent’ to the actions of the heavens, scientists appear to have superseded the authority of God. Once again, this would determine the writings of scientists to be more authoritative than religious ones. That Donne refers to seeing is also worthy of note. As found elsewhere in his works, Donne has again determined that knowledge of the heavens is most convincing when it has been drawn from direct observation.

Donne then proceeds to give an argument that seeks to pose a scientific problem but through literary means. Donne not only references Seneca, Martial and Horace²⁴⁹ but then moves to formulate his analysis of the planets based upon these authors’ texts. Thus, Donne feels that Mercury is more in need of ‘shadowing’ than Venus, as Mercury’s occupation is ‘eloquence’ which is ‘all shadowes and colours’.²⁵⁰ In posing a scientific question, but in a literary context, Donne now demonstrates the ability to perceive the use of literature within science to the fullest degree. Science has been useful to Donne’s literature elsewhere, as it provided authority for the arguments he made within his literary work. In this instance, literary knowledge contributes to scientific knowledge by creating the intellectual framework by which a scientific problem can be understood.

Therefore, Donne clearly displays a belief that there are hierarchies between the respective authorities of different branches of knowledge; displaying a preference for modern knowledge over old and scientific over religious. We have also seen how he determined literary or artistic knowledge to be outside of this hierarchy. Literature, within *Biathanatos* at

²⁴⁸ Ibid.

²⁴⁹ Ibid, p.34.

²⁵⁰ Ibid, p.33.

least, was a vessel capable of containing and interacting with all types of knowledge but was not subject to the same struggle to be considered supremely authoritative that scientific and religious knowledge were party to. The interaction of scientific and literary, or artistic, knowledge can be defined rather by the manner by which the two are symbiotic within Donne's literature (and therefore presumably thought). Scientific knowledge proved useful to justifying Donne's arguments for sinless self-homicide, and conversely literary knowledge is shown to be useful in framing scientific problems in Problem X.

Donne, Ptolemy and Images of the Sun.

Given that Donne's early work portrays a clear belief in the supremacy of modern knowledge over ancient, it is intriguing to note the significance of Ptolemaic theory in these same early writings. The final line of 'The Sun Rising' (1603-4)²⁵¹ gives the clearest demonstration of the astronomical theory which supports the logic of the poem's argument. In stating;

This bed thy centre is, these walls, thy sphere. (l.30)

Donne is clearly using Ptolemy's theory of the universe's layout. If the Sun has a 'sphere' about which it moves and the bed is the 'centre' about which the Sun rotates Donne must be using a geo-centric (rather than helio-centric) model in his imagining of the universe.²⁵² Furthermore, Donne's model would have us believe that the universe is 'bed-centric' or even 'Donne-centric' and it is the absurdity of such a claim that hints at Donne's usage of knowledge within this poem.

²⁵¹ J.B. Leishman, *The Monarch of Wit* (London: Hutchinson University Library, 1967), p.183. Leishman determines this to be one of five poems within the *Songs and Sonnets* to contain 'factual evidence... as to the date when they were composed', stating the seventh line to indicate this poem to come from the period when 'James I had been on the throne long enough for his passion for hunting to have become... a topic of both private conversation and public satire'.

²⁵² Equally, Donne's suggestion of the walls encompassing the Sun is reminiscent of the fixed sphere of stars that was deemed to act as the boundary of the universe in the Aristotelio-Ptolemaic astronomical model.

We have seen how in Donne's earlier prose work ancient knowledge is superseded in his mind by new knowledge (whether or not the new knowledge has any right to be deemed superior to the ancient understanding) purely because of the 'newness' or revolutionary nature of new theories. Donne follows this way of treating knowledge within 'The Sun Rising'. Not only is Ptolemy's theory made to seem ludicrous by Donne's final exaggerations but in his opening lines Donne has anthropomorphised the Sun to similar effect. For Donne the Sun becomes a 'Busy old fool' (l.1) who would do better to 'Go chide Late schoolboys, and sour prentices' (ll.5-6). Donne's choice of an elderly persona for the Sun not only undermines the Sun (by making it seemingly feeble or, potentially, impotent) but also resonates with his feelings about the Ptolemaic nature of this particular image of the Sun. The old and foolish Sun is a clear reflection of the now usurped understanding of Ptolemy. That this Sun is also 'unruly' (l.1) again hints at a criticism of Ptolemy's theory. The unruliness reflects the motion that Ptolemy ascribed to the Sun a motion that Copernicus would later disprove.²⁵³ Once more within Donne's writing new knowledge is deemed more authoritative than ancient.

The authority of the ancient system, and therefore of ancient knowledge, is permanently undermined throughout the poem. Not only is the Sun imagined to be an elderly and nose-y figure whose movement has become suspect but Donne's persona within the poem is also continually considered the Sun's superior. Donne gives the Sun the order to leave and bother other less important characters, such as children and apprentices, but when it does not he declares that:

²⁵³ Whilst Copernicus is not as important a figure within Donne's works as Kepler, he is undoubtedly of some note. Kepler was a staunch supporter of Copernicus's theory of geo-centricity and as such to favour Kepler is to be automatically put into a position of favouring Copernicus. It is possible that Kepler receives more of Donne's attention than Copernicus simply because of chronology. Copernicus published his theory of geo-centricity in *De Revolutionibus* in 1543, twenty-nine years before Donne's birth. As this thesis has set out to demonstrate 'newness' is a key feature in Donne's adoption and adaptation of knowledge, and therefore Kepler provides a far more natural point of reference than Copernicus.

Love, all alike, no season knows nor clime,
Nor hours, days, months, which are rags of time. (ll.9-10)

Thus, Donne reduces the Sun's importance to being merely used as a measure of time, and additionally suggests that 'time' is of no concern to those in love. The Sun is both merely in place to denote the 'rags of time' and these 'rags' are irrelevant anyhow owing to the 'all-sufficiency of two lovers'.²⁵⁴ Donne will later also suggest that he could 'eclipse and cloud' the Sun 'with a wink,' (l.13) and this again positions the poet as being supposedly superior to the Sun (and the ancient knowledge it represents).

Philip C. Kolin has noted that there are critics who 'have not seen Donne's intentions within the poem as either serious or sincere' and also many that have deemed the poem earnest,²⁵⁵ however, I would propose that Donne's poem is fickle with regards to sincerity. The poem holds certain convictions frankly and others merely mischievously. Whilst Donne's degrading of ancient knowledge is clear, the hierarchy suggested by his mentioning the 'rags of time' and eclipses is one that Donne willingly and playfully dupes. Donne's persona may initially seem to be superior to the Sun, however, whilst he attempts to reduce the Sun to being a mere tool for measuring time he also points to how the Sun acts to 'warm the world' (l.28). Donne also imagines the Sun in conversation with kings (l.19), and demonstrates that whilst he could (in theory) eclipse the Sun by winking in reality he cannot since he would be unable to lose sight of his lover for 'so long' (l.14). Given the irony of Donne's calling a wink 'long' the playful nature of the hierarchy Donne imagines between himself and the Sun is made apparent. Indeed, it has been noted by Carey that despite being 'emphatic about the all-eclipsing eminence of himself and the woman, Donne seems irascibly

²⁵⁴ Leishman, *The Monarch of Wit*, p.189.

²⁵⁵ P.C. Kolin, 'Love's Wealth in "The Sunne Rising"', *The South Central Bulletin*, 43:4 (Winter, 1983), 112-4, p.112.

conscious of the rest of the world'²⁵⁶ and this too points to a level of irony within the bold statements that Donne makes with regards to the position of his narrative persona throughout this poem. Whilst Donne is genuine in his disregard for the ancient science upon which he has based his depiction of the Sun he is not being genuine in his attempts to envision himself as superior to this knowledge. That Donne jokes whilst creating false hierarchies of knowledge between himself and scientific literature once again determines that whilst science can be found a place within literature, science and literature cannot be seen to interact in terms of importance or authority. The figure of the poet can only be jokingly positioned above the scientist. This is not because the scientist is superior (Ptolemy is the 'scientist' in question and Donne clearly favours the 'new' theories of Kepler) but rather he does not feel capable of comparing the respective worth of the artist and the scientist. As in his prose work 'The Sun Rising' demonstrates that Donne clearly had a preference for modern knowledge over ancient understanding and was definite in his creation of an imagined hierarchy that defined the respective authorities of the two. However, whilst he could envision a place within literature for science (and, since his knowledge of science would most certainly come from scientific literature, knew that literature had a place within the works of science) Donne could not, in his early career at least, create a hierarchy of authority and importance between scientists and artists. Both provided a knowledge that was capable of interacting with the other but neither of those branches of knowledge was deemed superior, or more authoritative, in Donne's estimation.

The importance of 'The Sun Rising' to this chapter is not limited to being a demonstration of Donne's belief in the superiority of modern knowledge and equality between artistic and scientific knowledge. 'The Sun Rising' also demonstrates the difficulty of dividing what is astronomical and what is geographical within Donne's work. When

²⁵⁶ *Life, Mind and Art*, p.94.

Donne states his intention to ‘eclipse’ the Sun he juxtaposes his ability seemingly to cause eclipses with the notion of the Sun becoming clouded over (l.13). As such, Donne describes both an astronomical method of ‘removing’ the Sun and a meteorological (or geographical) method within the same thought. That the Sun is both a celestial body in the poem representative of Ptolemy’s understanding of the heavens and simultaneously an interfering neighbour prying through Donne’s windows again demonstrates the dual nature of the Sun within Donne’s early works. The ‘old’ astronomical theories of Ptolemy can be seen to nag at Donne in much the same manner as the Sun disturbs the two lovers of his poem. The Sun is both celestial and terrestrial in his treatment and, therefore, Donne applies both astronomical and geographical sciences to it.

In Donne’s verse-letter ‘To Mr Christopher Brooke’ (dated as being pre-1596)²⁵⁷ Donne uses a number of very conventional images to describe love as having ‘hot fires’ (l.12) to ‘melt all ice’ (l.14) around his lover’s heart. In the midst of this poem, with a conventional streak that is atypical of Donne but understandable given how early in his career this was written, Donne again unites the celestial and the terrestrial by way of the Sun. The image of ‘Heav’n’s liberal and Earth’s thrice-fairer Sun’ (l.10) strongly acknowledges that the Sun can be seen to exist within two major contexts. It is both an astronomical figure and a feature of terrestrial life (as the following line maligning how cold the north of England can be confirms). This image, possibly owing to how inexperienced an artist Donne was at the time of creating it, is not particularly radical. The reference does, however, display that the foundations upon which Donne’s later poetry would rely were present in his earliest works. The line may be conventional in its wording but it does display a readiness to add complexity to what is seemingly a simple image. Donne’s acknowledgement of the Sun in two contexts

²⁵⁷ Robbins’s edition gives a brief and stimulating discussion on the dating of this poem. Unfortunately, despite several useful lines of inquiry to be any more specific in dating this work would be to make rather too large an assumption.

also suggests a willingness to explore a confluence of multiple branches of knowledge within a single locale. This desire to portray all of the various facets that particular objects, images, and concepts might have is again apparent within Donne's images of 'India'.

Donne's Early Conceptualisation of 'India'.

Whilst this chapter has focused upon Donne's interrelation of astronomical and geographical discoveries within 'On Love's Progress'²⁵⁸ he clearly demonstrates the interrelation of geographical and anatomical exploration. Donne reduces his mistress's cheek to 'a rosy hemisphere' (l.49), her nose to a 'meridian' (l.47), the area between her breasts becomes the valley along which the 'Hellespont' (l.60) passes, and he notes 'Some island moles' (l.64) as his poetic gaze journeys along his lover's body. Essentially, Donne reduces the anatomy of his subject to mere topography, demonstrating what Arthur Symons has described as 'the mind of a dialectician, of the intellectual adventurer'.²⁵⁹ Tropes such as this allow Donne to use allegorical methods to explain the body's workings. Whilst, in this instance, he uses geographical notation as a framing reference for anatomical 'study' Donne can also be seen to explain the geographical through an anatomical lexicon. This is particularly true in Donne's description of his mistress's 'India'. At first glance this image is pure innuendo and 'impudence'.²⁶⁰ Indeed, this is one of the elegies that caused Diana Trevino Benet to comment upon how 'discomfort has arisen' whilst studying Donne's elegies owing to his 'treatment of women'.²⁶¹ Donne use of 'India' is, on the most fundamental level, a

²⁵⁸ Whilst it is more typical to refer to this poem as 'Love's Progress', Robbins's edition refers to it as 'On Love's Progress'.

²⁵⁹ A. Symons, 'John Donne' in *Discussions of John Donne*, p.29.

²⁶⁰ Leishman, p.76.

²⁶¹ D.T. Benet, 'Sexual Transgression in Donne's Elegies', *Modern Philology*, 92:1 (August, 1994), 14-35, p.14.

comparison of the female genitals to an exotic land. However, the comparison also has implications for Donne's presentation of 'India' conceptually within his early work. Aside from the connotations of lust, exoticism, and sexuality, there is also a valid depiction of the fertility that was regularly attributed to the Indies by scientific texts. George Best, a gentleman employed on three of Frobisher's voyages, in his discourse describes how:

Radish, Lettuce, Colewortes, Borage, and such like, doe waxe ripe, greater, more savourie and delectable in taste than ours, within sixteen dayes after the seede is sowen. Wheate being sowed the first of Februarie, was found ripe the first of May, and generally, where it is less fruitfull, the wheate will be ripe the fourth moneth after the seed is sowne, and in some places will bring foorth an eare as bigge as the wrist of a man's arme containing 1000. Grains; Beanes, peace, &c. are there ripe twice a yeere. Also grasse being cut downe, will grow up in sixe dayes above one foote high. If our cattell be transported thither, within a small time their young ones become of bigger stature, and more fat then ever they would have bene in these countreys. There are found in every wood in such numbers great timber trees as twelve men holding handes together are not able to fathome. And to be short, all they that have bene there with on consent affirme, that they are the goodliest greene meadowes and plaines, the fairest mountains covered with all sorts of trees and fruites, the fairest valleys, the goodliest pleasant fresh rivers, stored wikh infinite kinde of fishes, the thickest woods, greene and bearing fruite all the whole yeere, that are in all the world.²⁶²

This lengthy passage demonstrates the fertility not merely by way of hyperbole, but also by sheer mass of evidence. Best covers vegetables, grains, grasses, livestock, trees, fruit, and fish in one description. Not only does he present an 'India' in which food can be found in abundance but the abundant nature is exaggerated by the demonstration of variety.

Furthermore, the fertility of 'India' is also expressed in terms of speed. Everything, even the grass that must be regularly cut down, is shown to be growing in a fashion 'greater... than ours'. When Donne's image is read in the context of such descriptions of 'India' the sexual crudeness of his image, whilst unquestionable, is tempered by the simultaneous expression of 'India's' fertility.

Whilst within 'Love's Progress' 'India' is mentioned purely as the name of a territory, the presentation of 'India' within the rest of Donne's early works is far more conceptualised.

²⁶² R. Hakluyt, *The Principal Navigations*, vol.7 (Glasgow: James MacLehose and Sons, 1904), p.254.

Donne does not keep to a singular referent in these early ‘India’ references as one would expect when using a proper noun such as a territory’s name. Rather, Donne uses ‘India’ as a blanket term for various branches of exotica where the exotic excesses may have some basis in India as a geographical location but this is far from the primary drive of his imagery. In ‘Satire 1’ (1593) Donne describes how a particular infant is ‘heir t’an India’ (l.58). If we are to be guided by the footnotes of Robbins edition of Donne then it is possible to read this line as though it is a literal reference to a child who is deemed heir to a nation’s throne – in this case of the Spanish Infanta’s claim to the English throne as a descendent of John of Gaunt.²⁶³ For Donne to term England as ‘an India’, however, seems rather idiosyncratic. It would seem more likely that here the use of ‘an’ alters Donne’s usage of ‘India’ so as to refer to a fortune or wealth that can be measured by means in terms of ‘Indias’. That Donne would use ‘India’ as if it were a unit of currency, or a measure of value, immediately sets the tone for the vast imaginative framework that Donne employed whilst referring to ‘India’.

If in ‘Satire 1’ ‘India’ can be read as meaning ‘a measure of exotic wealth’, then Donne’s usage in his verse-letter ‘To Mr Rowland Woodward (‘If, as is mine, thy life a slumber be’)’ (August 1597) is a modification upon this theme. Within the letter Donne clearly aims to fulfil both the epistolary and poetic requirements of his genre. Indeed, a characteristic common of all of Donne’s letters is that ‘both in his verse-epistle and in his extant published prose-correspondence bear witness to his faith in the letter as a singularly valuable means of human communication’²⁶⁴ and owing to this fact Donne is respectful of both poetic and epistolary concerns, and requirements, within his verse-letters. The letter is written seemingly as an escape from the ‘slumber’ (l.1) that Donne perceives his life to be experiencing whilst delayed at Plymouth awaiting the return of Essex and Raleigh from

²⁶³ Robbins, p.371.

²⁶⁴ J. Jordan, ‘The Early Verse-Letters of John Donne’, *University Review*, 2:10 (Summer, 1962), 3-24, p.3.

London. Therefore, Donne attempts to open a conversation with his friend on matters of the day. However, as is typical of Donne, a philosophical aside must accompany every instance of reportage. Donne envisions the ability of letters to transport aspects of a person from the writer to the receiver. He claims the letter is ‘like me’ (l.5) since it displays ‘my name, words, hand, feet, heart, mind and wit’ (l.6). Clearly Donne’s name refers to his signature and his words to both those he would speak and those he has written. Donne’s references to his hands and feet are slightly more ingenious since they refer not to his body but rather his handwriting and the feet of his poetry, thus, simultaneously displaying the ‘wit’ that he has also supposed himself to have transferred through the letter. His heart Donne explains through the image of an ‘enamoured patient’ (l.13) and, from the listed parts of Donne, this leaves only Donne’s ‘mind’ to discover. It is Donne’s ‘mind’, or opinion on the matters of the day, that the final twelve lines display.

The final lines of the poem concern themselves with Guyana and Raleigh’s quest for El Dorado. It is understandable that Donne, and indeed any educated early modern figure, would have high expectancy of an ‘El Dorado’ within the Indies. George Best’s discourse, as taken from Hakluyt’s *Principal Navigations*, suggests that:

as for gold, silver, and all other kinde of Metals... are there in such abundance, as hitherto they have bene though to have beene bred no where else but there.²⁶⁵

And this is a typical commentary on the potential of both the East and West Indies to produce wealth. Raleigh’s *Discoverie of Guiana*²⁶⁶ (written upon completion of the voyage Donne was referring to) gives perhaps the clearest example of the wealth that was imagined within the

²⁶⁵ R. Hakluyt, *The Principal Navigations*, vol.7, p.254.

²⁶⁶ W. Raleigh, *Discoverie of Guiana*, ed. J. Lorimer (London: The Hakluyt Society, 2006).

Indies. Raleigh states that Guiana ‘hath more abundance of Golde than any part of *Peru*’²⁶⁷ claiming further that Guiana is a ‘*Magazin* of all rich metals’.²⁶⁸

It is also within these lines that Donne again refers to ‘India’ (l.28). There is, on one level, the simply geographical reference to Guyana as part of the West Indies. However, the theme of dualisms that Donne has entered into (in writing both a letter and a poem, in his references to hands and feet, and his conveying of news and philosophy) also continues since Donne refers to ‘an India’. Therefore, in this instance ‘India’ has been linguistically defined as not merely being a proper noun denoting a place. Instead, owing to the association with ‘almighty virtue’ (l.28), ‘India’ has also become an abstract noun.

Furthermore, Donne has moved from the physical world which he assumes will be a disappointment as he perceives ‘discontinued hopes’ (l.26) with relation to this quest to the spiritual world. Donne references the instance of Moses seeing the ‘promised land’, but dying before he reached it (ll.20-1) and as such brings an Abrahamic deistic framework within which he places ‘an India’. If we consider again the discourse of George Best and how it continues by claiming that the Indies are ‘the earthly Paradise, and the onely place of perfection in this worlde’, this connection between ‘India’ and the spiritual is no more surprising than the connection between ‘India’ and wealth.²⁶⁹ ‘India’ is no longer a mere measure of physical excess but rather is here a measure of virtue. Further to this, ‘India’ is not merely a quantifiable amount of virtue but simultaneously takes on, by association, a level of Christian morality and piety that is perhaps contrary to the more hedonistic understandings that Donne demonstrates elsewhere in his work.

²⁶⁷ Ibid, p.37.

²⁶⁸ Ibid, p.23.

²⁶⁹ Given Donne’s predisposition towards images of an alchemical nature (Carey, in *Life, Mind and Art*, writes at length about Donne’s interest in the plasticity of gold (p.185)), it is unsurprising that gold and spiritual paradise are linked in such a fashion. To the renaissance alchemist gold was deemed a ‘perfected’ form of matter. The practice of alchemical purification was one of drawing substances closer to being gold, therefore, to connect it with paradise, the final resting place of a ‘pure’ human being, is a natural association.

The transformation of 'India', from physical pleasure to spiritual goal, is hinted at by Donne's early reference to 'Morpheus' (l.3). By invoking a character classically synonymous with change and transformation he creates the potential for his poem to be similarly unstable. In many senses, Donne's verse-letter upon an issue of exploration and geographical discovery is drawn by its theme into undergoing several 'journeys' of its own. There is not only the physical journey that any letter takes (from sender to recipient), the delayed journey that causes Donne to create the letter, and the physical journey that is discussed in the text, but also an emotional journey of transformation that occurs throughout the letter. Donne has begun writing in a state of boredom but within thirty two lines his mood has changed to one that can positively state 'Virtue our form's form and our soul's soul is.' (l.32) Donne has undertaken an emotional transformation that allows him to move from a seemingly impatient slumber to seeing value and virtue in an ill-fated quest. It is unsurprising, therefore, that when writing a piece that is so openly concerned with volatility of meaning and understanding that Donne's 'India' should also undergo a massive and potentially (given the context of his more salacious work) paradoxical overhaul. Therefore, within 'To Rowland Woodward' the conceptualisation of 'India' has passed from being a mercantile tool, to having a pseudo-religious understanding, in which 'India' becomes synonymous with correct living as 'an India' is the reward for such a lifestyle.

Donne again touches upon this aspect of his conceptualisation of 'India' in his letter 'To Mr Samuel Brooke' (1592). The poem is offering support and advice to Brooke as he tentatively explores his way into the realms of poetry but Donne opens the piece by stating:

O thou which, to search out the secret parts
Of th'India or rather Paradise
Of knowledge, hast with courage and advice
Lately launched into the vast sea of Arts, (ll.1-4)

The reference to the 'sea of Arts' is Donne's attempt to acknowledge both Samuel Brooke's taking up of a university course and to introduce the sea voyaging metaphor²⁷⁰ that carries on throughout the poem and is not particularly important at this juncture; however Donne's classification of 'India' here is intriguing. Since Donne is discussing a voyage this may be the first genuine reference in his writings to 'India' as a geographical place; and indeed here he talks of 'th'India' rather than 'an' for the first time. This is the earliest poem to reference 'India' in Donne's corpus, and this may account for 'India' still being a physical construct rather than an imaginative framework within Donne's mind at this point. However, despite the reference seeming more definitely concerned with 'India' as a place than in the other examples we have seen so far the image still embellishes 'India' so as to create a meaning beyond a simple geographical nod or a national stereotype.

Here, in a similar fashion to the poem 'To Rowland Woodward', 'India' is a byword for 'Paradise' which has very obvious religious significances as well as important journeying connotations to a sailor as Donne presents his addressee to be. 'India' is not the match of Paradise, however, but is rather hierarchically positioned as being a mental stepping stone towards true Paradise – as the use of 'or rather' indicates – and Donne hints at the reason for 'India' falling from being a match for Paradise in the opening line. The use of 'secret parts' may fall under the broad vocabulary of an explorer – searching for new, or secret, lands – but the phrase also has a thinly veiled sexual connotation. The rhyme of 'parts' and 'arts' is indeed reminiscent of the sexual boasts that Donne employs with regards to his carnal mastery in 'On Love's Progress' (l.73). 'To Mr Samuel Brooke' and 'On Love's Progress' can be further linked by the role Donne's persona plays within each poem. Donne is in both

²⁷⁰ For a brief but intriguing study of Donne's persistent use of imagery involving sea-voyages see E. Simpson, 'Two Notes on Donne', *The Review of English Studies*, 16:62 (May, 1965), 140-150. S. Burt, 'Donne the Sea-Man', *John Donne Journal*, 16 (1997), 137-84, also provides an engaging, and slightly longer, study of the relationship between the sea, Donne's life, and his poetry.

poems a guide and an explorer who has more knowledge than his readership.²⁷¹ In both he leads his audience along an imagined naval voyage and in both Donne seeks something he (and presumably his poem's intended audience) held dear be it either poetic inspiration and ability or sexual gratification. The link between the two poems cannot be over-stated since they are also very closely chronologically linked. However, Donne's use of 'India' in 'On Love's Progress' is very specific, since it refers to his mistress' genitals (suggesting that they are both of great value to Donne and simultaneously are mysterious) and in the letter to Brooke the 'India' reference is far more complex. The 'Paradise' to which 'India' is so close to being, but in Donne's mind falls short of on moral grounds,²⁷² is actually a 'Paradise' 'Of knowledge' (ll.2-3). Thus, whilst Donne has given 'India' a moral and religious framework within the second line (having suggested a sexual exoticism within the first) it is in the third line that Donne grants 'India' its position as a concept within artistry, particularly within poetry. These opening lines are useful at displaying the boundaries Donne perceived for 'India' within his poetic works. 'India' is clearly deemed magnificent, and pseudo-religious (without ever attaining a status which might truly be deemed 'religious'), 'India' is a cause of great erotic intrigue for Donne and simultaneously an image that exemplifies the mysticism of knowledge and the manner by which poetry is understood. These lines manage to place Donne's poetic concept of 'India' alongside three major themes within Donne's work (his religious, sexual, and literary interests) so that, albeit briefly, this geographical place can be understood conceptually in relation to some of the most influential philosophical notions that dominate Donne's early work. This also allows the reader and critic briefly to glimpse Donne presenting these three major thematic concerns directing equally important levels of influence

²⁷¹ As we have seen within Donne's early treatment of Kepler, not only does Donne's claim to have more knowledge supposedly give him authority over his readership but the implication that Donne's knowledge is drawn from physical sensory experience further fortifies the 'authority' of Donne's poetic persona.

²⁷² This is intriguing since we have seen how elsewhere Donne uses 'India' as a measure of morality, or as a reward for it. That Donne has openly discussed a lack of piety within the imaginative bounds of his image of 'India', potentially denigrates the 'virtue' it is linked to in the poem 'To Rowland Woodward' (pp.150-1).

over his poetry. Each is given one line. The three are not intended to interact (and do so only via the 'India' reference) and, therefore, thematically this opening is an exemplar of much of what Donne was to write for the rest of his career. The three themes sit juxtaposed, inter-related by ingenious imagery, but never allowed to come to a solid conclusion that would make Donne's personal opinion or preferences so explicit as to be obvious. Donne clearly sees the themes of religion, sexuality and literariness as key to his art, but does not wish to divulge too much about how these features inter-relate within his mind-set. Merely admitting that these themes interact is enough for a poet with such a honed sense of his own literary persona. Donne manages, therefore, via a strong and self-shielding literary persona to present the appearance of an insight into his internal sphere (that of his poetic and creative mind) without ever actually allowing the verse-letter's addressee truly to get beyond the external, or public, sphere of a Donnean persona.

Donne's final use of 'India' within the 1590s is far from being as grand as the purpose he puts it to in 'To Mr Samuel Brooke'. Indeed, the 'Epithalamium Made at Lincoln's Inn' returns to the sexual baseness we have seen in 'On Love's Progress', although without the same levels of explicitness (despite Carey defining the epithalamium as a 'brutal image for sexual congress').²⁷³ Donne 'after a minimum of a year of preliminary study at Thavies Inn... entered Lincoln's Inn in May 1592'²⁷⁴ and his epithalamium written whilst attending the Inn is agreed by Carey, Robbins, and A.J. Smith to have been composed between 1592 and 1595. The only notable modern editor of Donne's work to disagree with this dating is Milgate who dates the poem slightly later at 1598 though without a great deal of justification. Following the opening stanza, which requests that the poem's mistress to rise from her bed in the knowledge that (since she is to marry) when she returns to it she shall not be alone, Donne

²⁷³ *Life, Mind and Art*, p.129.

²⁷⁴ R.C. Bald, *John Donne: A Life* (Oxford: Clarendon Press, 1970), p.53.

describes the adornment of the woman and it is here where Donne again exploits 'India' as a referent. In asking others to 'make her [the poem's female subject] for love fit fuel, As gay as flora and as rich as Ind.' (ll.21-2) Donne ostensibly uses 'India' as a simple image of adorned beauty. The woman is not taking upon herself this mantle of 'put on perfection' (l.24) but is rather being dressed by others. Donne concedes that this is a woman being dressed 'Conceitedly' (l.19) and here the double meaning of conceitedly is worthy of note. The adjective both describes the vulgarity of the act that Donne is imagining, the external beautification that is deemed by society as necessary at a time that should be an expression of internal love, but equally draws on the nature of the 'conceit' that Donne has exploited artistically. Donne has removed the independence of his female character by not allowing her a name – despite repeatedly referring to how she will 'put on perfection, and a woman's name' in the refrain that ends each stanza – and also by making her inanimate in the actions of the poem which concern her. She does not dress herself, Donne instructs others to do this, and it is deemed conceited that she is adorned though the adornment is in itself a poetic conceit. Therefore, this reference to 'India' (which owing to how Donne truncates the word to 'Ind' may be a reference to either the East or West Indies, though the association with riches, female attractiveness, and the implication that the female character is only being embellished to prepare her for a process leading to intercourse – as the mention of her not returning to bed alone highlights – suggests it is the East Indies that Donne is talking of) again has the same interest in wealth, beauty, and sex that other of these early references to 'India' have shown. Notably, within *Principal Navigations* there are strong foundations for an image of 'India' to have a mingled representation of wealth, adornment, and simultaneously of fertility and of floral extravagance. We have already seen the supposition that 'India' held a mass of mineral wealth, through precious metals, however, the nation's fertility is also expounded. India is deemed to have:

[all] manner of graine, Hearbes, grasse, fruite, wood and cattel, that we have here, and thousandes of other sortes, farre more wholesome, delectable and precious, then any wee have in these Northerne climates.²⁷⁵

Furthermore, the female protagonist's adornment can be perceived in the abundance of 'wrought silks' that the *Navigations* also suggests to be present within India. However, as previously noted, what distinguishes this particular reference to 'India' from the other early references is the lack of interiority that Donne affords his mistress. In the 'Epithalamium made at Lincoln's Inn' 'India' is deemed a place on a map and is used merely as an expression of a woman's physical appearance ignoring any emotional or internal conflicts and struggles that may be apparent. Both 'India' and the female character are two dimensional constructs in this work. They are stereotypes that intentionally ignore that which may make them into unique constructs (namely the internal conscious that determines a character or place's uniqueness). Both are deemed to be icons by Donne's work and he ironically exposes the falsehoods and artificiality of ceremony. On the day of her wedding the bride should be filled with emotional tensions and yet here Donne presents a bride that is emotionally non-existent. Donne's image of a bride has as much relation to a real woman as the image of 'India' on a map does to the territory of India. Both lack the essence of the truth that makes the image more than an image but rather a physical construct. It is owing to how both map-makers, and in the poem 'bride-makers', have 'conceitedly' ornamented their subjects for the approval, appraisal, and appreciation of others by way of ceremony that this interiority – an interiority that would establish the subject's true character – is lost. It is notable that such a reading makes the persona Donne embodies within this poem one that is sympathetic to his female subject. Whilst previous examples have appeared brash and brazen, here Donne uses a comparison to India to allow for a far gentler and far more thought

²⁷⁵ R. Hakluyt, *The Principal Navigations*, vol.7, p.254.

provoking image that does not fall into the bawdiness for which many of the other images are renowned.

The final 'India' reference of Donne's early work is found in 'The Sun Rising'. This represents the first reference that comes outside of the period of the 1590s and similarly represents the first instance of 'India' being referenced by a poem from the collection of poems now considered Donne's *Songs and Sonnets*. Donne's image of:

Whether both Indias of spice and mine
Be where thou left'st them or lie here with me. (ll.17-8)

adds a further complication to his presentation of 'India'. This image evokes both the East and West Indies, unlike the earlier images, and continues to connect these places with riches, wealth, and the exotic. The image also continues Donne's connection of 'India' and the female form as well as his interest in transforming his lovers into terrains. However, this is the first time that Donne implies causing the terrain by which he compares his lover to have physically moved. The poem's main plot is that of two lovers woken by the Sun and Donne's subsequent 'battle' with the Sun. This image forms a portion of the poem in which Donne 'challenges' the Sun. Donne defies the Sun to find the Indies where 'he' last saw them claiming them to have been moved – and potentially colonised – by Donne's narrator. This colonisation follows a very different form to his earlier pseudo-colonial geographic images. Here Donne has metaphorically taken possession of a 'territory' against the will of another possessor whereas previously his conquests were the 'colonising' of a female body via the sexual act. Donne does not present himself as being a master of his mistress but rather in having out-witted an astronomical body. Donne presents himself as being a masterly figure, not merely over women, but over nature and specifically over the cosmos. That Donne could eclipse the Sun with a 'wink' (l.13) heightens this power, since Donne toys with the notion that – within his poetry at least – as author and creator he is a form of god. Since he possesses 'divine' omnipotence within the poem his re-drawing of the world by bring the Indies to his

bed (and uniting them in a single figure) neatly balances the role of God and of cartographers in designing the globe. 'India' is supposed to have been given a position on the Earth by God and yet that position is only revealed to man by map-makers. Here Donne takes the role of map-maker by divulging his knowledge of where the Indies are situated and simultaneously takes the role of god by deciding where this position should be. As such, the poet is assumed to be both a religious and scientific figure within his own works since the poet can control the boundaries of knowledge within his own intellectual frameworks.

Therefore, Donne's early images of 'India' clearly move beyond being a simple expression of exoticism or even a crude byword for sexual intrigue. Donne's 'India' is a multifaceted concept wherein Donne has taken a level of geographical knowledge and conflated this knowledge so as to give 'India' a heightened presence within his works. We have seen how, in 'The Sun Rising', 'The Epithalamion made at Lincoln's Inn' and the verse letter 'To Mr Samuel Brooke', Donne refers to India as a physical place (or as two geographical locations when he references the Indies) and yet he just as often refers to 'India' as a concept, in 'On Love's Progress', the verse letter 'To Mr Rowland Woodward' and 'Satire 1'. 'India' does have sexual implications, exotic associations, and connotations of wealth for Donne but equally it has suggestions of religiosity and morality also. It is perhaps in the letter 'To Samuel Brooke' that the biggest hint as to Donne's early imagining of 'India', as a poetic image, is given. In a poem that aims to guide its addressee towards a heightened sense of poetic achievement and a more exalted poetic ability 'India' is considered to be an image of the destination that the aspiring poet must aim for. 'India' is not a mere representation of the exotic or mystical then but rather it is – in these early poems at least – an imaginative embodiment of how Donne perceived his poetry. Donne has taken a geographical construct and imbued it with various understandings, some moral and others less so, so as to create a symbol that incorporates the various themes, conflicts, and desires of

Donne's poetic artistry. Donne takes a point on the globe and instils it not merely with clichéd connotations but rather with a sense that symbolically 'India' can be deemed the epitome of Donne's personal understanding of his own art. The 'Indian' references are intentionally varied, and intentionally complex, so as to divulge fully the accumulation of various branches of knowledge that fuels much of Donne's work. Through this variation, Donne manages to express the potential for knowledge to be evaluated differently when presented in different contexts. Given that Donne's knowledge of the Indies is all at best second-hand (in the sense that it is *reported* knowledge rather than knowledge gathered by personal experience) the variations in Donne's interpretations are themselves a comment upon the potential for what is understood to be dependent upon circumstance. Ultimately, the 'India' references, when read as a group, reveal a conceptualisation of knowledge as fundamentally unstable and essentially driven by context.

Donne's Early Interest in America.

Whilst the changeable nature of Donne's references to 'India' can be interpreted as being the product of a youthful Donne exploring the various potential understandings that reported knowledge can create, his writings on America fall far more readily into being perceived as emotional responses. When assessing the references in chronological order clear fluctuations in Donne's understanding of the continent are apparent.

The first explicit reference that Donne makes to the New World is to be found in 'To His Mistress Going to Bed' (1593-6). Here, whilst describing his mistress Donne declares her:

O my America! My new-found land!
My kingdom, safeliest when with one man manned! (ll.27-8)

These famous lines often are read as a being a form of the body politic images, where the woman takes the part of the body and the man as ruler, or as Carey has suggested as expanding ‘the woman into something of universally acknowledged importance – in this case a continental land mass’²⁷⁶ and R.V. Young has noted ‘some reluctance’ on the behalf of critics to offer too much detail with regards to the more ‘risqué’²⁷⁷ elements of this and Donne’s other elegies (a sentiment shared by Anthony Low’s description of the poem as being ‘problematic’).²⁷⁸ The phrasing also has a direct relationship to the comparison of ‘India’ to the female form in ‘On Love’s Progress’ where the male character takes on the role of coloniser. The use of ‘manned’ indicates this most strongly suggesting both political and sexual occupation. However, the simple point that is often ignored is that here the usage of America is a positive one. Whether the image promotes Donne’s (or the narratorial voice’s) sexual gratification or whether it suggests the dominance of England over its colonies the suggestion is that America is presented in a wholly positive fashion. The reference is framed by images of ‘precious stones’ (l.29) and of ‘Paradise’ (l.21) and the juxtaposition of these images also causes a reflection of wealth (both physical and spiritual) upon America. The image is one of a submissive and feminized nation but this carries no negative implications since in turn the submission of the Americas aids the promotion of England as ruler. Even though America is shown to be a subject this subjugation creates a hierarchy that is beneficial to Donne and his readership. Furthermore, the suggestion that this ‘vassal’ is of interest in terms of wealth, spirituality, and sexuality makes the Americas a topic that cannot (given the value Donne’s work ascribes to these areas) be denigrated.

²⁷⁶ *Life, Mind and Art*, p.93.

²⁷⁷ R.V. Young, “‘O My America, My New-Found-Land’: Pornography and Imperial Politics in Donne’s ‘Elegies’”, *South Central Review*, 4:2 (Summer, 1987), 35-48, p.35.

²⁷⁸ A. Low, ‘Donne and the Reinvention of Love’, *English Literary Renaissance*, 20:3 (September, 1990), 465-86, p.471.

Whilst this initial, and very early, reference shows Donne to be intrigued by and looking favourably upon the Americas the next substantial references, those found in 'The Good Morrow' (1602) and the 'Valediction of Weeping' (1605), offer a wholly different emotive response. Within 'The Good Morrow' Donne, as he did in 'To His Mistress Going to Bed', is writing a poem that aims to flatter a female counterpart of the male narrator. Arthur Marotti has argued that the poem is written for Ann More, and uses the implication of waking together to indicate a dating of post 1601, the year of Donne's marriage. Whether a specific lover can be attributed to this poem or not, however, there is a striking difference between how the 'new worlds' (l.12) are presented here and how they were in 'To His Mistress Going to Bed'. In the earlier elegy the Americas are part of a collection of rapturous and sensual images evoking various levels of wealth. America is deemed a subjected territory that is to be ruled but this subjugation is viewed positively (since the territory is under British ownership). In 'The Good Morrow', however, America is no longer presented as being an exotic land that is a subject of British rule but rather it has had its status as one of Donne's imagined 'countries' removed from it. Donne demystifies the Americas by presenting them as a mere cartographic figure thus removing any romantic notions of America as a far-flung land full of intrigue. The flippant tone created by the repetition of 'let' suggests a sense of nonchalance about Donne's interaction with the Americas. It is now as if the New World is no longer of interest to him. It is, of course, entirely possible that Donne use of America has merely progressed so that in order to trump a previous comparison of a woman to the New World Donne decides that his lover is not merely equal to America but is in fact its superior. Such a reading would imply that America must have an inherent worth for this form of flattery to have any potency. However, it is Donne's interest in the complexity of his lover, and humanity itself, as expressed by the idea that each lover 'hath one [world], and is one' (l.14) combined with his request that we 'let maps to others' (l.13) that fully encapsulates Donne's

denigration of the Americas and the fundamental shift that he has emotionally, and intellectually, undertaken in his approach to them.

Whilst previously a human being could be understood in terms of a place on the globe, now the world is understood in terms of humanity. America to Donne has transformed from being a land of intrigue, much as 'India' had at various times been, into a mere place on the map. Donne has lost interest in knowledge of the Americas by realising that the Americas can be 'explained' or 'demonstrated' by a cartographer whereas to understand humanity is a far more complex task.

The issue of America becoming a mere image on a map is taken even further by the 'Valediction of Weeping'. Donne demonstrates how:

On a round ball
A workman that hath copies by can lay
An Europe, Afric, and an Asia
And quickly make that which was nothing all: (ll.10-14)

and his decision to omit the Americas from this image is telling. William Empson's reading of these lines focuses upon the nature of the tear that Donne is describing. Empson notes how 'on the face of it, it is like a *ball*, but *so doth* may treat it as like the *workman*'. Empson goes on to discuss the manner by which the tear is seen to make a world that can be viewed in relation to the 'real world',²⁷⁹ however, this understanding ignores the fact that Donne's image does not describe the real world completely. By omitting America, Donne completes the process of reducing the importance of America within his work. By only mentioning the three continents of the 'classical', or ancient, world Donne attempts to eviscerate knowledge of the Americas from his work, paradoxically heightening its presence since its absence is highly notable.²⁸⁰ It is worth noting at this point the significance of Donne's use of images of

²⁷⁹ W. Empson, 'A Valediction of Weeping', in H. Gardner ed., *John Donne* (New Jersey: Prentice-Hall, 1962), p.54.

²⁸⁰ Donne's decision to ignore the Americas is also notable as the 'classical' world is that which conforms to the understanding present in Ptolemy's *Geographia*. The use of a pre-eminent geographical text (which is

map and globe-making in relation to the rapid development that the map had undergone as a scientific, and navigational, tool. P.D.A. Harvey notes how ‘in England in 1500 maps were little understood or used’ and yet ‘by 1600 they were familiar objects of everyday life.’²⁸¹ Furthermore, Harvey notes the progression that maps had undertaken in relation to both their accuracy and usefulness as tools, noting the crucial importance of the ‘introduction of scale [during the] 1540’s.’²⁸² Finally, Harvey demonstrates how ‘the introduction of the printed map... did not affect the technical development of mapping... but it did more than anything else to spread the idea of using maps and plans among the public at large.’²⁸³ Therefore, Donne can be seen to be taking advantage of the dramatic rise in the accessibility and public awareness of maps as accurate representations of the world in his imagery. More importantly, Harvey’s demonstration of the fact that maps had become truly integrated into the social consciousness adds further credence to the suggestion that Donne’s decision to exclude America from this imagined globe is of great significance. Donne’s readership would have had a level of expectancy of what a globe would have included. Not only that it should be concurrent with the present level of understanding but also that it should represent, in as great a sense as is possible, the truth with regards to the globe’s nature. Donne’s decision to remove America from his world becomes both a comment upon the distaste he had for the Americas, at this point in his poetic development at least, but also a desire to retract from current scientific understandings of the world. The Americas were a fact of life and yet Donne harks back to the simpler world prior to America gaining prevalence in the public conscious. Donne is attempting to create a unified vision of the world by excluding the

fundamentally flawed as it was written prior to the discovery of the Americas) is particularly notable given the earlier discussion of Donne’s preference for Kepler’s astronomical works over Ptolemy’s. Essentially, Donne denigrates the Americas further as he uses both a retrograde understanding of the world and elsewhere in his work he demonstrates a distaste for the very knowledge that he is using to disparage the New World.

²⁸¹ P.D.A. Harvey, *Maps in Tudor England* (London: British Library and Public Records Office, 1993), p.7.

²⁸² *Ibid*, p.8.

²⁸³ *Ibid*.

inherently fractious subject of modern knowledge. It is inevitable that with any discovery, though particularly a geographical one, there is a wealth of new knowledge and understanding to be gathered. Equally, as Donne matures as a writer he has shown himself to be ever more aware of the dislocating and alienating nature of knowledge especially in how new knowledge is capable of destabilising what was previously assumed to be true. Therefore, at this stage in Donne's career his images of the 'new-world' are reacting against the potentially disruptive nature of new knowledge by reverting to an antiquated, yet more stable, understanding of the globe.

The image of the globe-maker also has implications for Donne's perception of himself as a literary figure. Both the globe-maker and the poet are figures who create. Both attempt to 'make that which was nothing all' (l.14). As such, here Donne is also experimenting with the potential to control knowledge. Donne is not merely hiding from new knowledge's potential to create instability but is also asserting his own attempt to control knowledge. Donne notes that from nothing he and the globe-maker create 'all' and this implies a sense that both creations can be understood to be *definitive*. Donne, and the map-maker, can control knowledge by only presenting that which they wish to be perceived. In much the same way as Donne attempts to block out the Sun 'with a wink' (l.13) in 'The Sun Rising' here he attempts to eclipse the Americas through the use of a simple omission. As previously stated, Donne's attempt to block out America is as futile as his attempt to block out the Sun since he cannot hide what is already common knowledge from his readership. However, this is suggestive of a further philosophical problem with regards to knowledge and its dissemination. The trouble is that associated with accepting reported knowledge and distinguishing truth from it. Were Donne's text the only source on the nature of the globe, knowledge of the Americas could be eradicated, but since it is not, the context of Donne's omitting the Americas demonstrates once again the changeability and inherent plasticity of

knowledge, understanding, and, ultimately, the truth. Donne's early representations of the New World demonstrate him to be a figure fighting to comprehend the vast unnerving complexity of the world against the background of his own ability to understand the world outside of himself.

'Then Man is a World' and Conclusions on the Early Works.

Having seen how Donne treats both the Americas and the Indies within his early work, it would seem sensible to define Donne's conceptualisation of these two vast landmasses as intellectual colonisation. Donne is at once an explorer of foreign lands and a gatherer of the knowledge that these new lands can offer. America and 'India' do not merely present Donne with the excitement of what is 'new' to him but also demonstrate the inherent instability of what is already known to him. The New Worlds of India and America provided Donne with a part of the external world that was both unknown and, potentially, unknowable to him. When viewed against the context of Donne's images of 'India' and America, the prevalence of Donne's image of his body as a world within his early works is truly illuminating of his understanding of knowledge and knowledge acquisition. There are three notable occasions of Donne envisioning man to be a world in his early creative works.²⁸⁴ These are to be found, firstly and implicitly, within 'The Good Morrow', and then explicitly within 'Satyre 5' and 'I am a little world'. The belief that 'each hath [a world] and is one' (l.14) within 'The Good Morrow' has already been explored by this chapter, however, Donne's declaration within 'Satyre 5' that 'man is a world' (l.13) is a far more peculiar instance of this regularly occurring Donnean trope. Within 'Satire 5' that 'Man is a world' is not based upon a

²⁸⁴ Whilst the earliest possible dating for Donne's poem 'I am a little world' (1609-10), barely falls within the remit of this chapter, the prevalence and relevance of the image to this chapter make its inclusion here valuable. The references to mankind as a world within Donne's *Devotions* and his late poetry will be considered in the following chapter.

personally held philosophical stance developed over Donne's artistic career,²⁸⁵ as it appears to be within 'I am a little world', but rather it is an attempt at exposing the potentially ludicrous nature of established 'knowledge'. Donne argues man to be a world based upon the Aristotelian belief in a world where everything is made of four elements (earth, air, fire, and water) and then having absorbed this knowledge into his work attempts to draw humour from the rather extreme conclusions that can be drawn by following the logic of this knowledge to the extreme. Thus, whilst man is a world simultaneously 'All men are dust' (l.19). The poem displays Donne's persistent device of imagining man as a world though, rather than for complex philosophical reasons, within this early work Donne's interest in the trope is purely whimsical. Donne incorporates into his work ancient knowledge and then uses the logic fundamental to it to make the knowledge self-defeating and self-destructive. This is an intelligent treatment of another's understanding but, ultimately, Donne is displaying contempt for Aristotle's work rather than an engagement with it.

It is within 'I am a little world' that Donne fully explores the philosophical potential of this image. Having considered Donne's earliest explorations of the world outside of Europe (mainly through the vast conceptualised images of 'India' and America) and found them to be deeply interested in the insufficiency of understanding in a world where new knowledge is constantly being discovered by explorers, the internal exploration of this poem can be viewed in a new light. That Donne believes himself to have been 'made cunningly Of elements' (ll.1-2) seems to be drawn of the same Aristotelian knowledge as we have seen displayed in 'Satyre 5', however, in this instance Donne is not merely replicating and ridiculing knowledge. Within this poem, Donne reverses the colonial desires that works such as 'To his Mistress Going to Bed' display and rather desires to be colonised himself. Donne addresses those (in particular God) who have 'found new spheres, and of new lands can

²⁸⁵ Given that 'Satyre 5' was written in 1597-8 such an association would be impossible.

write' (l.6) and asks that they 'Drown my world' (l.8), that they should 'burn' (l.13) me and that ultimately in 'eating' (l.14) Donne's body they may 'heal' (l.14) him. Therefore, not only does Donne reverse the colonial desire that has ultimately determined knowledge to be an unstable entity that he will never master but rather Donne asks that the only being who can have mastered these new lands (and as such new areas of knowledge), God, should consume him. Clearly this is an attempt by Donne to be drawn into piety from the wretched state within which he perceives himself to exist. However, if God consuming Donne would make him part of God and therefore purer and more pious God's consumption of Donne would also make him part of an omniscient being. Donne would be religiously purified and, simultaneously, remove all of the boundaries and uncertainties that human knowledge has presented to him. In asking God to colonise him Donne attempts to destroy all of the uncertainties and concerns that affect a colonising force. Donne would no longer need to pursue knowledge as he would have become a supplicant to one who already possessed it.²⁸⁶

Tina Skouen has noted how discussions of the 'Holy Sonnets' (and 'Divine Meditations') have 'centred on the religious struggles of the speaker' and attempted to move away from merely viewing them as being 'linked with the writer's alleged melancholy or spiritual crisis'²⁸⁷ and my reading (in both this and the following chapter) will also attempt to extend away from such discussion. Whilst David L. Edwards has determined the sonnets to be part of a 'mental breakdown',²⁸⁸ Richard Strier has noted the 'pain and confusion'²⁸⁹ in

²⁸⁶ It is also worth noting Donne's letter to Sir Henry Goodyer, 'It should be no interruption to your pleasures', at this point. Written in 1609, it again concerns the notion of 'we which are a little earth' and Donne's desire that his personal Earth be 'concentrique to God'. Interestingly, Donne uses an explicitly astronomical vocabulary (and references the 'new Astronomie') and attempts to move from references to the new astronomy 'towards God'. Whilst 'Satyre 5' mocked the ancient astronomy and 'I am a little world' focuses heavily upon religious purification, this letter can be seen as a middle ground in which Donne praises new knowledge by hoping that it will bring him closer to God.

²⁸⁷ T. Skouen, 'The Rhetoric of Passion in Donne's Holy Sonnets', *Rhetorica*, 27:2 (Spring, 2009), 159-88, p.162.

²⁸⁸ D.L. Edwards, *John Donne: Man of Flesh and Spirit* (London and New York: Continuum, 2001), p.236.

many of the sonnets and Ramie Targoff has considered them to be ‘idiosyncratic and personal’ records of ‘their author’s struggle to come to terms with his own history of sinfulness [and] his inconstant and unreliable faith’²⁹⁰ this poem in particular offers striking evidence to the contrary. What is perhaps most unusual about Donne’s attempt within ‘I am a little world’ to be religiously, and ultimately intellectually, eviscerated is that despite being a somewhat extreme poem in its tone it adheres fully to Donne’s earlier portrayed beliefs regarding the manner by which humans gain understanding. Without question, Donne here asks that he gain piety and a link with God (and therefore God’s understanding of the world) through a physical sensory experience. It is through the decimation of Donne’s body that he hopes to be enlightened. Thus, once more Donne displays a belief that the only way for mankind to learn, become enlightened and further itself (be it intellectually or religiously) is through experience as gained through the senses. Donne has attempted to imagine an internal geography that might mirror the external one, so that he might become more pious in learning more about himself (or in allowing God to ‘learn’ more about Donne’s self). Given that scientific knowledge has, elsewhere in this chapter, been seen to be more authoritative than religious knowledge within Donne’s work, due to the collection of knowledge through sensory experience, the importance of this poem is further heightened. Donne has removed the issue of religious knowledge being based upon faith rather than experience by suggesting a physical (and violent) relationship with God. Once again physical sensory experience is seen to be the best path to understanding. This poem does not represent the failure of Donne’s mental state as Edwards has suggested but rather the continuation of his long held philosophical beliefs with regards to the importance of experience to the human condition (both spiritually and intellectually).

²⁸⁹R. Strier, ‘John Donne Awry and Squint: “The Holy Sonnets,” 1608-10’, *Modern Philology*, 86 (1988-9), 357-84, p.361.

²⁹⁰R. Targoff, *John Donne, Body and Soul* (Chicago: Chicago University Press, 2008), p.108.

Within Donne's earliest work, therefore, the influence of geography and astronomy gives clear indications as to the complexity of his perception of knowledge. Knowledge is something that Donne is willing to define by genre and as we have seen in *Biathanatos* he is willing to formulate hierarchies between those genres based upon his perception of the authority of each 'genre'. Knowledge is also seen to be overwhelming in its vastness and complexity and Donne's colonial affectations in his images of America and 'India' reveal a great interest in the instability of knowledge. Donne also displays a belief in knowledge being drawn from physical experience suggesting that sensory perception is the best way to gain knowledge. Though no scientific works are directly alluded to, all three of these features that Donne perceives within his conceptualisation of knowledge can be found within 'The Bracelet' (1593). In claiming:

So in the first-fall'n angels resteth still
Wisdom and knowledge, but 'tis turned to ill, (ll.71-2)

the instability of knowledge that Donne has portrayed elsewhere is abundantly clear since within the fallen angels knowledge (in this case of how to love God) has 'turned to ill'. The journey, both physical and metaphorical, from pre-fall to post-fall has both banished them from heaven and banished them from knowledge. The understanding that has been lost is also positioned within a hierarchy, albeit subtly, as it is deemed not merely knowledge but in this instance it is wisdom, implying that it is above all other forms of knowledge. A.C. Partridge has previously termed 'The Bracelet' to be both 'one of the wittiest and most ingenious examples'²⁹¹ of Donne's early poetry but what is truly unique about this couplet, however, is that the physical experience of falling has reduced the knowledge of the angels that have fallen. Whereas elsewhere in Donne's corpus sensory experience is seen to gather knowledge for the one experiencing here the experience, uniquely, removes knowledge. That knowledge has been seen to be both gained and now lost through experience bolsters the relationship

²⁹¹ A.C. Partridge, *John Donne: Language and Style*, p.22.

which Donne perceived between a physical sensory encounter and knowledge acquisition. Whilst knowledge can be seen to be gained through the senses in poems in which Donne interacts with scientific thought knowledge can be seen to be lost through the senses in a poem in which scientific literature is absent. This passage from 'The Bracelet' may not directly interact with geographical and astronomical sciences; however, it can be seen as an exemplum in understanding Donne's conceptualisation of knowledge. Moreover, this couplet neatly demonstrates the beliefs Donne held with regards to knowledge and would later demonstrate through his eclectic use of scientific materials.

Chapter Four: Geographic, Cartographic, Navigational, and Astronomical Imagery in Donne's post-1609 Works.

As the previous chapter has demonstrated, Donne is both eclectic and nuanced in his references to astronomical and geographical sciences. This chapter will, in turn, attempt to expand upon the discussion of those nuances, and track the development of the various strands of thought that Donne's earlier works displayed.

In particular, this chapter will seek to demonstrate how Donne's conceptualised images of both the Indies and the Americas developed throughout the latter stages of his career. Ultimately, it seeks to demonstrate that one of the reasons for the difficulty many scholars have noted in criticising Donne's work is drawn from the continual fluctuations taken by his personal opinions and representations of those sentiments. The effects of variations in Donne's mood, biographical situation, and the context of changes in the world he lived in are all visible within his treatment of these two countries. Indeed, the sense of 'otherness' that they are deemed to have (since they are not merely outside of Britain, but outside of Europe too) at times seems to reflect Donne's perception of himself as 'other' to English society at various point in his life. The fluctuations in Donne's appreciation of the Americas in particular, which varies from a fevered excitement to a broad disapproval, seems linked to Donne's perception of himself.

Following this discussion, the debate begun in the 'Anatomical and Medicinal Science in Donne's Works' chapter, concerning how best to read 'The First Anniversary', will be concluded. We have seen the intellectual struggles that Donne clearly had when handling anatomical knowledge in the poem and this continues into his treatment of astronomical and geographical matters. This chapter will also turn, as the previous chapter did, to Donne's images of man as a world in his own right. We have seen how these images are crucial to

understanding Donne's perception of knowledge and by continuing to trace this metaphor throughout his works we can gain an insight into how these perceptions also alter over the course of Donne's career. Clearly, it would be simplistic to expect Donne's understanding of broadly conceptual ideas to remain constant throughout his lifetime and this trope is a useful indicator of the precise manner of these variations of Donne's understanding.

As well as furthering, and concluding, various strands of discussion from the previous chapter, this work will also aim to demonstrate the development of 'new' aspects of Donne's astronomical and geographical references. Notably, Donne's work in *Ignatius* offers us a clear example of Donne introducing a new aspect to his presentation of astronomical science since here he sees beyond the deference that has been noted in his earlier works and begins to be more explicitly critical of scientists and the methodologies of science.

Donne's Later References to 'India'.

Following 'The Sun Rising' Donne did not mention 'India' again until the years 1609-11, during which period the image made a notable return. The first of these references came in Donne's 'Elegy to the Lady Bedford' and it offers a significant nuancing of a trend that we have already seen within Donne's 'Indian' images. Whilst 'On Love's Progress' compares the female genitals to 'India' it does so with no concern for the woman's emotions. The mistress of the poem is a body that Donne wishes to possess rather than a person with whom he aims to engage. The 'Epithalamium made at Lincoln's Inn' offers a refinement of this comparison, where the similarities between the female character and 'India' are deemed flattering (albeit as we have seen the female protagonist of the epithalamium is far from an independent or even fully rounded figure, rather she is an object of male adornment). In the context of these two poems the 'Elegy to the Lady Bedford' offers a further uniting of the

female form with the exoticism and allure of the Indies, however, in this instance the poem's context gives cause for the salacious overtones of Donne's earlier descriptions to be removed and his patroness acts as a softening influence²⁹² upon Donne's work.²⁹³

As in the 'Epithalamium' (and also 'The Sun Rising') Donne refers to both Indies at once, however, here he does so since he is for the first time discussing two women in unison. Rather than one figure encompassing 'all spices' and 'all metals' of the 'rich Indies' (ll.33-4) Donne uses the two precious commodities to represent two parts of a single entity, thus, drawing Lady Bedford and her recently deceased friend Lady Markham together as two halves of the same friendship. The use of 'she' and 'you' (l.33) which runs through the poem may initially seem to separate the two figures through the use of two jarring opposites but Donne reconciles this potentially fractious tone through the use of the plural 'you two' (l.34). Donne, therefore, encompasses the connection and recent separation that Lady Bedford has experienced at the loss of her friend.

Given the context of Donne's other comparisons between the female form and 'India', it may seem entirely inappropriate that he should use this image in the context of an elegy. However, the geographical separation of the East and West Indies combined with the links they shared (both lexicographically and in the social consciousness of the time) makes this image wholly appropriate for the situation Donne is attempting to convey. It is testament to Donne's ingenuity that, given the differing contexts of this poem and his previous 'Indian' references, he managed to use one of his most frequently occurring geographical metaphors but with an entirely new meaning. This comparison of women to the Indies is intended to flatter but most significantly empathises with the emotional needs of the women who are being flattered. There is no sexual connotation to Donne's description but he does create a

²⁹² See E. Hardy, *Donne: A Spirit in Conflict* (London: Constable, 1942), pp.125-9, for a brief introduction to Lady Bedford's patronage.

²⁹³ For a discussion of Lady Bedford and Donne's relationship with her, see, P. Thomson, 'John Donne and the Countess of Bedford', *The Modern Language Review*, 44:3 (July, 1949), 329-340.

delicately flattering image of separation and perpetual unity between two friends. Whilst the previously explored comparisons of the female body to the Indies relied upon the reader's knowledge of the exotic wealth of the countries to create suggestive images, Donne now uses his knowledge of the geographical proximities of the two Indies to create a poignant expression of loss. In both instances, Donne displays an ability creatively to interpret his understanding and form poetic images that are founded upon his knowledge but whose ingenuity is drawn from his imaginative exploration of the potential offered by his incomplete understanding.

The rather more restrained 'Indian' image of the 'Elegy to the Lady Bedford' is mirrored by 'A Funeral Elegy' which Donne would write in December 1610 upon the death of Elizabeth Drury. Grierson has ably demonstrated how this poem has been neglected owing to it appearing 'subordinate'²⁹⁴ to the more significant 'Anniversary' poems that it frequently accompanies, and Lebens has also suggested that the poem to an extent 'deserves its neglect in terms of its intrinsic quality and the minor interest it provokes in comparison with the two *Anniversaries*'.²⁹⁵ Lebens continues to suggest that the poem has a worth as being 'Donne's first effort commemorate Elizabeth Drury [it can] supply a significant clue to the understanding of the *Anniversaries*'.²⁹⁶ The methodology of this thesis, however, allows us to examine the poem outside of the constraints of this limited viewpoint, revealing the poem to have significant merits when read in conjunction with other works in Donne's corpus. Once again the 'two Indies' are united 'in one' (l.6) and the image focuses upon the mineral wealth (in the form of 'pearls and rubies' (l.5)) of the Indies. When read alone Donne's image of 'India' within the 'Funeral Elegy' is of little significance. However, when read alongside the

²⁹⁴ H. Grierson, *The Poems of John Donne* (Oxford: OUP, 1912), II, p.178. Grierson notes, however, that the very earliest editions place the 'Anniversaries' in a subordinate position.

²⁹⁵ W.M. Lebens, 'Donne's Anniversaries and the Tradition of Funeral Elegy', *ELH*, 39:4 (December, 1972), 545-59, p.545.

²⁹⁶ *Ibid.*

'Elegy to the Lady Bedford' we begin to see a definite change in Donne's poetic tone. Donne is recycling his older metaphors (in this instance of 'India') and creating a new purpose for them that is appropriate for their new context. It is also worth noting that, in this period of Donne's career, when he is writing to flatter women he is mostly concerned with the flattering of patrons. Significantly, whilst the two references we have already seen to 'India' from this period share a funereal context there is an intriguing, and related, occurrence within Donne's non-funereal poems of this time. Within Donne's verse epistle 'To the Countess of Bedford ('You have refined me')' Donne wishes to flatter his patroness and as in his earlier works uses geographical references to do so. However, rather than using 'India' (as he often does in relation to a mistress) he talks of China and Brazil.

The references to China and Brazil are of great importance since they signify the change to a major collection of interrelated geographical images that span the earliest parts of Donne's poetic career. Donne describes how:

So in the country is beauty: to this place
 You are the season, madam, you the day;
 'Tis but a grave of spices, till your face
 Exhale them, and a thick, close bud display
 Widowed and reclused else, her sweets she enshrines,
 As China, when the sun at Brazil dines. (ll.13-18)

And the reference to China in particular is a key alteration to Donne's vocabulary and also to his poetic tone when writing on women. Here the Countess is imagined as China, when the Sun is in Brazil, and the most instantly recognisable feature of this image is its precision. Donne has chosen Brazil, despite the fact that nowhere else in his writings does it appear, since it is exactly half way around the globe from China. It has the sense of being exotic, far-flung, rare, and exclusive as his previous images of flattery also do. Also of note is that Donne, when looking to the east for a territory by which to compare the Countess, chooses China over 'India'. As we have seen, 'India' was a common feature of Donne's poems so again China has a similar exclusivity to Brazil, ideal for flattering a patron; but there is also

the sense that Donne has distinctly drawn himself from 'India' so as to avoid the sexual connotations his earlier 'Indian' images are filled with. There is even a sense that in moving from more lascivious images (in which 'India' and the female genitals are often compared) Donne has literally, as well as figuratively, altered his poetic gaze so as to focus his flattery above the woman's waist, thereby requiring an area that is above the equator to which to compare his patroness. This adjustment is one of courtly decorum since any sexualised implications would be totally inappropriate within a poem to the Countess of Bedford.

This may be a sign of Donne's maturity since his sexualised 'Indian' images are all pre-1604. However, more likely this forms part of a group of geographical metaphors which aim to flatter but do so as is appropriate for a poet to his patroness rather than to a lover. That Donne only mentions Brazil and China once in his entire poetic corpus is significant since it demonstrates that not only was Donne capable of altering the purpose of his images (as we have seen in his re-definition of the focus of his 'Indian' metaphors) but was also capable of creating new ones where the need existed. Carey has argued that for the majority of Donne's career he used a recognisably constant set of images and merely altered their tone according to context (often more sexualised in his early work and more religiously minded in his later work)²⁹⁷ and, whilst his alteration of the 'Indian' metaphors in this period can be seen to demonstrate Donne's ingenuity with engineering variety out of a stock set of poetic images, his references to China and Brazil demonstrate that he was equally adept at creating new (albeit closely related) images when the situation demanded them. Potentially owing to the explicit sexual tone of many of his early 'Indian' references, Donne is drawn in this poem to use new countries that fulfil the requirements of being exotic, distant, and flattering to his poem's addressee. That Donne would later return to using 'Indian' images, despite a seemingly inappropriate funereal context, may indicate that he had a preference for using

²⁹⁷ *Life, Mind and Art*, p.xi suggests that despite Donne's desire to separate his later work from his earlier efforts the poems were not written by 'two people' and that the 'more we read the poems and sermons the more we can see them as fabrics of the same mind, controlled by similar imaginative needs'.

‘India’ (a suggestion further strengthened by the brevity of his using Brazil and China) over other nations in his imagery but does not preclude Donne’s also creating new images as his career progressed. Thus, Donne displays the versatility of his images that Carey has suggested but only after he has explored and dismissed the possibility of creating new images which would serve similar purposes to his existing group of frequently used metaphors.

During this period (1609-11) of Donne writing to flatter and generally please his patronesses there is one other ‘Indian’ reference that neatly counterpoints the tone of the metaphors he offers to those who patronise him. In ‘Upon Mr Thomas Coryat’s *Crudites*’ (1610-11) Donne satirically attacks the wastefulness of Coryat’s having used his patron’s money to publish his book (an account of his ‘five-month tour of Europe in 1608’,²⁹⁸ which Donne imagines ‘torn in pieces, wrapping currants, figs and “home-manufactures” or sweets’)²⁹⁹ and again uses ‘India’ in relation to patrons. That ‘both Indies’ have sent ‘sacrifices’ (l.29) exemplifies the criticism of Donne’s tone. As with his other metaphors, again ‘gold’ (l.30) and sensuousness (l.32)³⁰⁰ are central to Donne’s imagining of the nations, and, given how highly Donne valued these aspects of the Indies in his other writings, the profligacy of Coryat is heightened. As the significance of Coryat’s extravagance is raised, Donne reveals the main distinction between the ‘India’ of his own patrons and the ‘India’ of his subject’s. Here, rather than being abundant in gifts the patrons are deemed to have made ‘sacrifices’ as Donne perceives them to have been abused (implying that he is careful to cultivate those ‘Indies’ that support his own career). It is also possible that, whilst well-treated patronesses are presented as being cornucopian goddesses of abundance, here, Donne

²⁹⁸ K. Craik, ‘Reading ‘Coryat’s *Crudites*’ (1611)’, *Studies in English Literature 1500-1900*, 44:1 (Winter, 2004), 77-96, p.77.

²⁹⁹ *Ibid*, p.82.

³⁰⁰ In the summer of 1611 Donne would again use the West and East Indies as synonyms for wealth and sensual experience in describing the ‘gilt of the West Indies and the perfumed East’ in his ‘First Anniversary’. Later, in 1614’s ‘Eclogue’, Donne would further the number of senses the East Indies were deemed to benefit by discussing the ‘little spice’ in their ‘taste’ (l.58).

chooses through his use of sacrifice to evoke the death of a Jesus at the hands of man – thus condemning Coryat’s wastefulness as not merely selfish, given the competitive nature of acquiring patrons, but also sinful.

Donne’s final poetic reference to the Indies comes from 1618. Within his verse letter ‘To Mr Tilman After he had Taken Orders’³⁰¹ Donne’s use of ‘India’ is notable since ‘India’ is used as a supporting image within a poem that uses an overriding vocabulary of metamorphoses. Whilst we have seen Donne previously to have revelled in the plasticity and malleability of the concept of ‘India’ as a poetic device, here, Donne is far more fascinated by the changeable nature of humanity. ‘India’ is, once again, associated with ‘rich... ware’ (l.10) and also with sea voyages (l.9), however, it is Donne’s addressee Mr Tilman who has undergone change to so great an extent that the instability that Donne ascribes to ‘India’ is a secondary feature.

Donne’s tone throughout the poem is one of curiosity and of failed understanding. Donne does not know how his friend feels having taken religious orders and his questioning whether Mr Tilman believes himself to be of ‘the same materials as before’ (l.12) demonstrates this desire to gain some level of insight into whether or not a physical change has been undergone. However, the nature of Donne’s questioning implies his beliefs about the nature of the change that the poem’s addressee has experienced. It is clear from Donne’s reference to how Tilman has received ‘far more gain Of noble goods’ (ll.11-12) through becoming part of the church than he would have by receiving a cargo of exotic goods from the Indies that Donne values the transformation into a religious figure more highly than any mercantile wealth. That Tilman is being compared to a voyage from India also implicitly signifies that in Donne’s estimation the wealth and exoticism that we have seen in his earlier

³⁰¹ For a discussion of Donne’s relationship with Mr Tilman, see, A. Pritchard, ‘Donne’s Mr Tilman’, *The Review of English Studies*, 24:93 (February, 1973), 38-42.

images of 'India' (as well as the clear value he ascribed the concept of 'India' as a poetic trope) are far less significant than the pursuit of religious piety.

When we consider what we have already seen to be the multifaceted nature of Donne's conceptualisation of 'India', and the clear excitement that we have seen in Donne's various uses of 'India' within his work this adherence to a hierarchy in which religious thought is of more significance than a creative thought is telling. In Donne's earlier uses of 'India' it is the plasticity of the image that is the focal point of his interest. A level of geographical knowledge, probably drawn from the travel literature produced from the experiences of explorers, travellers, and merchants, allowed Donne a partial understanding of 'India' as a location. This in turn left enough intellectual space for his imagination and creativity to extrapolate upon his understanding of 'India'. Thus, Donne conceptualised, and fictionalised, his knowledge of 'India'. The continual and varied natures of Donne's references to 'India' are testament to his keen interest in both 'India' and the process of conceptualisation that he applied to it. It is understandable that by 1618 (twenty six years after he first used 'India' within his poetry) Donne's excitement and interest in what is, within his work, a regularly occurring poetic device has waned. Indeed, Donne's estimation of how valuable his creativity is appears to be measurable by the decline in the significance of the 'India' trope. This is not to say that Donne loses faith in the value of creative secular thought, but rather to say that he takes a heightened interest in the importance of religious thought and, thereby, creative (and potentially flippant) thought has its status reduced.

The usefulness of the Donne's 'India' metaphors as a guide to the general state of his understanding of the workings of poetry (and indeed of the nature of human understanding) is mathematically demonstrable. If we were to make a brief empirical analysis of Donne's references to 'India', comparing the frequency of its occurrence against the year in which it occurred, a significant pattern emerges. Donne makes persistent references to 'India' in the

early 1590s (around half of all of his 'India' references occur at this point). There is a solitary (but significant) reference to 'India' in 'The Sun Rising' (1603/4) and then Donne again makes great use of 'India' in the years 1610/11. This in turn is then followed by the final reference in 'To Mr Tilman' in 1618. The presence of the two large groups of references (approximately twenty years apart) is indicative of the significance of 'India' within Donne's corpus. The concept has two separate periods in which it is a prevalent metaphor in Donne's work and this suggests the importance of the idea to Donne and also the longevity of this importance. Furthermore, the fact that the reference between these two peaks in the frequency by which Donne references 'India' (that of 'The Sun Rising') is, as we have seen, both singular and significant to Donne's general poetic conceptualisation of 'India' indicates that Donne is continuing to develop his poetic devices even when they become less apparent within his poetic vocabulary. Thus, we have two significantly separated periods in which Donne displays a keen intellectual interest in the fictionalisation of 'India' and we also have evidence of Donne's constant interest, and creativity, between these periods. What this, rather stark, analysis demonstrates is a key feature of Donne's personal conception of knowledge and understanding. The 'India' trope demonstrates that Donne was not only continually learning (and altering his presentation of ideas as his understanding of those ideas was altered) but that he was also in a state of constant creative fluctuation. Donne's imagination extends and extrapolates upon what is known and understood and this process of imaginative and creative exploration, as we have seen, can take place over many decades. Donne's approach to 'India' in his poetry is akin to the action of a geographical explorer. From a position of limited knowledge through time and creativity the poet-explorer unearths the potential of 'India' (both as a territory, a 'country' within Donne's imagination and as a concept). Donne's final reference to 'India' is therefore a significant conclusion to his understanding of 'India' as both a place and a fiction. Donne both blazoned and emblazoned

the territory and concept of 'India' over a period of twenty six years and this final reference acts to catalogue the significance of what proved a highly fruitful creative thought against a religious background. The creative understanding that Donne had of 'India' was of a great deal of significance to his work but in his final mention of 'India', within his poetry, he tempers the excitement of his creative process with a more 'correct' and pious understanding.

Donne does not make great use of 'India' as a metaphorical construct outside of his poems but a few notable exceptions do occur in his sermons. The connection between the Indies, perfumes, and gold continues in his sermon 'Preached at Lincolns Inne' in May 1620. However, in this reference Donne is completely specific with his geographical references in a fashion that he ignored within his poetry. Donne discusses how:

hee that hath a plentifull fortune in Europe, cares not much though there be land of perfumes in the East, nor of gold, in the West-Indies;³⁰²

and here we are finally given a clear separation between which Indies Donne associates with perfumes and which with gold.³⁰³ Donne also makes reference to the Indies as sinful places (returning to a theme present in some of his earlier poetry) by suggesting that 'many summs of Indulgencies' are now used in the Indies.³⁰⁴ However, the most significant of Donne's references to the Indies within his sermons reflects upon the disparity between man's knowledge and that of God.

In a sermon 'Preached at White-Hall', Donne asks:

Who ever would have thought, that we of *Europe*, and they of the *Eastern* or *Western Indies*, should have met to the making of Christ a Church? And yet, before we knew, on either side, that there were such a *people*, *God* knew there was such a Church.³⁰⁵

³⁰² *Sermons*, vol.3, p.123.

³⁰³ The interest in West Indian gold is also apparent in his sermon 'Preached at S. Paul's the Sunday after the Conversion of S. Paul' on the 30th January 1625.

³⁰⁴ *Sermons*, vol.10, p.126.

³⁰⁵ *Sermons*, vol.10, p.170.

And his reflection upon God's omniscience is of great significance to his understanding of humanity's learning. By stating that God knew of the church that would be built between Europe and the Indies, before Europeans even knew of the existence of the Indies, Donne contextualises the state of human knowledge. Not only does he show it to be incomplete but he expresses a belief that the state of human learning is not the most advanced form of understanding. Whilst humanity may discover certain things it will never have a complete level of knowledge, as God does.

Therefore, the fleeting references that Donne makes to the Indies within his sermons serve to extend the pattern that was already emerging within the 'Indian' metaphors of his poetry. The excitement of Donne's early references was tempered by the end of his life so as to contextualise the insignificance of man's discoveries in the wake of God's glory. This is entirely understandable, given Donne's changing life circumstances, and Jeanne Shami has discussed the manner by which Donne's lay imagination becomes a 'spirited religious imagination'.³⁰⁶ However, Donne belittles human discovery through his comparisons with the achievements of an omniscient and omnipotent being and with this devaluing of human experience comes a loss in the level of his enthusiasm for humanity's accomplishments. What Donne does demonstrate within his use of the 'Indies' conceit throughout his career, however, is that, despite Fowler's suggestion that metaphysical comparisons tend towards 'a single tenor and a single vehicle',³⁰⁷ is the great variation he is capable of drawing from a 'single system of analogies'.³⁰⁸ Through Donne's 'Indies' references a wealth of moods and tonal variations as well as progression of thought which coincides with the context of his life are expressed. The 'Indies' conceit acts to give the reader a tool with which to trace the

³⁰⁶ J. Shami, *John Donne and Conformity in Crisis in the Late Jacobean Pulpit* (Cambridge: D.S. Brewer, 2003), p.75.

³⁰⁷ A. Fowler, *Conceitful Thought* (Edinburgh: Edinburgh University Press, 1975), p.105.

³⁰⁸ *Ibid*, p.106.

progression of Donne's interest in, and understanding of, geographical matters across his entire career. There is enough consistency in Donne's references (to wealth and perfumes) to demonstrate that each of the metaphors are inter-related and yet such an abundance of nuances that patterns in the evolution of the trope become apparent. Donne's youthful enthusiasm for the exoticism of the Indies is assuaged by his career path, his maturation and his increasing knowledge, whereby his references tend towards becoming more specific and as such his creative tendencies are limited by fact. The newer the knowledge (and the more sparse its detail) the more scope Donne had with which to imagine the potential of the knowledge and, thus, the more extravagant the variety of his images. The proliferation of knowledge, combined with an increased prominence of Donne's faith (and zealous morality), acted to curtail the exuberant fashion by which Donne's earliest works toyed with the 'Indies'.

Given the nature of this exploration, and the theoretical basis which pervades many of its analytical discussions, it is prudent now to attempt to make a final attempt at distinguishing Donne's understanding of the 'Indies' which he portrayed. Clearly, the distinctions made can only ever be a generalisation and, as the study of Donne's 'Indies' has attempted to demonstrate, to suppose that a single unified solution to what exactly constitutes the 'Indies' in Donne's works is a foolhardy undertaking. There are certainly strands of thought which pervade Donne's exploration of the Indies, as this and the previous chapter have elucidated, but the image remains a fragmented and conceptual one. What can be said for certain is that Donne attempted to label and define a partially known element of reality, and in doing so was forced to undertake the construction of imagined boundaries and characteristics in his attempt to understand fully the nature of the 'Indies'. Donne's interaction with the (incomplete) scientific and explorative records of both India and the West Indies that were available to him, despite being irreconcilable into a single and pithy analysis,

is, however, crucial to understanding the manner by which Donne approached, analysed, and synthesised into his general understanding new branches of knowledge. The critical exploration of the 'Indies' which Donne undertook was itself homologous to the process of literary analysis. Donne attempted, through both culturally and literarily gained information, to explore imaginatively the potential meanings and, hopefully, unveil true understandings of an exotic and 'foreign' conceptual entity. The reality of India, Donne's knowledge of 'India', and his creative thoughts on 'India' were reconciled and presented in his own writings much as a modern scholar must read, process, and present their findings when studying Donne's work. Thus, in attempting to critique Donne's 'reading' of the 'Indies' this thesis has acted to perform the same action that Donne attempted first in his analytical reading, and imaginative exposition, of 'India'. It would seem, therefore, that Donne's reaction to India, and the knowledge of India to which he had access, was akin to a literary critical reaction. In essence, Donne's 'Indian' metaphors act to demonstrate that Donne, on an intellectual level, 'read' critically not only literature, but (owing to the longevity and ever changing nature of the trope) also his own imaginative thought – being self-reflexive and critical of his own creativity. This reveals not only the inherent logical, critical, and analytical nature of how an early modern intellectual might assess and amalgamate various branches of knowledge, but we also see how literary criticism is, in its own way, a creative art form since it is as much a creative art as the art being critiqued.

Donne's Later References to America.

As the previous chapter has demonstrated, Donne only refers once to America by name within his poetry. However, despite this there is a clear interest in America within his

sermons. What is most notable about these references is the continuation of several trends which we have already noticed in Donne's other writings.

In 'The Second of my Prebend Sermons, Preached at St. Pauls'³⁰⁹ on the twenty-ninth of January 1625, Donne discusses the 'two Hemispheres, two half worlds' and decides that whilst 'the first hath been knowne long before' the other 'that of America, which is the richer treasure' had been 'reserved for later Discoveries'³¹⁰ by God. We have already seen Donne compare hemispheres (in relation to both the globe and the human body when imagined as a globe) in his earlier poetry, we have also observed Donne linking foreign countries with 'treasures' in his descriptions of the Indies,³¹¹ however, what Donne introduces in this reference is a suggestion of man being complicit in the machinations of a higher being. Previously Donne's tone was excitable when discussing the discoveries man had made (or as 'On Love's Progress' implies a lover may make) but this excitement has now been exchanged for awe at God's decisions. America becomes a 'treasure' for mankind to discover only at God's will. The morality of this is intriguing, given the difficulties that Donne highlights with astronomers observing the heavens in 'The First Anniversary', that Donne excuses the inquisitiveness of terrestrial explorers (through a suggestion that their discoveries are made in accordance with God's will) initially seems hypocritical. It is only when we consider the comparison that Donne is to make as his sermon progresses that the reason for Donne excusing human curiosity on Earth but not in celestial matters becomes apparent.

³⁰⁹ *Sermons*, vol.7, p.51.

³¹⁰ *Ibid*, p.69.

³¹¹ In Donne's sermon 'Preached to the King at White-Hall, upon the occasion of the Fast' on the fifth of April 1628, he draws a further similarity between his discussions of America and the Indies by associating America with an excessive need for indulgencies (ten for every one that is used in Europe) as we have also seen him do with regards to the Indies.

Having described mankind discovering America, seemingly with God's permission, he continues to compare the discovery of the second hemisphere to the discovery that man makes of heaven after death. It is through Donne's explanation of how God reserves:

that Hemispher of Heaven, which is the glory thereof, to the Resurrection, yet the other Hemispher, the Joy of heaven, God opens to our Discovery,³¹²

that the scorn Donne, potentially satirically, gives astronomers in both 'The First Anniversary' and *Ignatius His Conclave* is explained. If Earth is the 'Joy of heaven' and God has ordained its discovery Donne considers terrestrial exploration to be valid and morally acceptable. Moreover, it is a positive moral action to explore the terrestrial world since God has given mankind both the potential and the permission to do so merely reserving the discovery of some elements for later in human history. The exploration of the heavens, however, is deemed by Donne to be morally retrograde since God has reserved this for after 'the Resurrection'. Thus, the actions of astronomers are harder to excuse since they impinge upon an area of discovery that should be reserved for the future.

The other noteworthy mention of 'America' in Donne's sermons comes from his sermon 'Preached at Lincoln's Inne' in November 1620.³¹³ Here Donne discusses how:

Though I would deuest, and shake off woes and offenses of Europe in Afrique, or of Asia in America, I cannot, since wheresoever, or howsoever I live, these woes, and scandals, and offences, tentations, and tribulations will pursue me, who can expresse the wretched condition, the miserable station, and prostration of man in this world?³¹⁴

There is little of interest in this reference when it is taken in isolation. Donne is merely expressing that the individual cannot hide from their sins by travelling away from them.

When we consider another instance in which Donne chooses to list the continents this passage becomes more illuminating. In 'The Second Anniversary' when Donne comments upon:

³¹² Ibid

³¹³ *Sermons*, vol.3, p.13.

³¹⁴ Ibid, p.168.

The western treasure, eastern spicery,
Europe and Afric and the unknown rest (ll.228-29)

we are presented with the same sense of listing the continents that the sermon proffered but with the exception of America (Asia being alluded to in Donne's 'eastern spicery'). It is worth mentioning that despite there being almost nine years between the composition of the two pieces Donne begins to describe the continents in the same fashion, linking Europe and Africa and then positioning Asia and America as separate, or subordinate, land masses. Indeed, in 'The Second Anniversary' America is neglected to the point of being unnamed. If we consider the 'Valediction of Weeping' we find a similar occurrence. Donne discusses 'an Europe, Afric and an Asia' (l.12) and again neglects to mention the Americas. Equally, the manner by which Donne mentions the continents is again the same, Europe and Africa being linked, Asia mentioned in isolation and America ignored. It is possible to argue that the instances of Donne mentioning America in a seemingly subordinate position are accountable by the relative 'newness' of the continent. In the images where the Americas are ignored Donne harks back to the ancient understanding of the world prior to America's discovery. However, this line of argument ignores Donne's excitement at the concept of 'newness' which we have noted in his earlier work. It is also possible to excuse the absence owing to a moral objection to humanity's curiosity until we consider that Donne's sermons profess the discovery of America to be divinely ordained. That Donne would ignore America in both sermons and this poem is possibly suggestive of a hierarchy within Donne's mind relating to the respective worth of various places. America is clearly significant within Donne's imagination and as a source of poetic inspiration but it could be argued that he deems it an inferior place. As we noted in the previous chapter, Donne treats America as though it were a land in which once we have discovered 'what in them is best' (l.230) is of a greatly reduced significance. Therefore, the references Donne makes post-1609 act to confirm what his youthful interactions with the continent began to imply. Whilst Donne is seemingly

enamoured with the Indies, both as a source of exotic goods and exotic poetic images, his response to America is one of colonial elitism. America is occasionally deemed an exotic location but never with the same grandeur that he proffered to the Indies. America is more often imagined to be a neglected territory³¹⁵ within Donne's works. Indeed, whilst a relatively incomplete level of learning was seen to excite Donne with regards to the Indies, as it allowed his imagination to fill the gaps in his understanding (gaps made noticeable since a small amount of knowledge had imbued in him a great deal of curiosity), the same is not true for the Americas. Indeed, with regard to America Donne is seemingly retrograde in his knowledge, since it would appear that he harks back to ancient understanding. Thus, it would appear that Donne has a peculiarly ambiguous relationship with the Americas. Donne, on occasion, attempted to avoid including America in his work but in doing so revealed another feature of knowledge, namely, that once something is known it cannot be unlearned by omitting it from future discussion. It would appear that by the final references that Donne makes to America in his sermons he has accepted this fact but despite this the treatment he affords America throughout his career is little better than contrary.

Further References to 'New Worlds'

Whilst Donne is rather petulant in his treatment of the 'New World' he is far more positive in his treatment of other new worlds. Unusually, there is a link in Donne's poetry that extends beyond the obvious linguistic similarity in the two phrases. In 'I am a little world' Donne

³¹⁵ It would be anachronistic to term America a 'nation' in the modern sense of the word in the context of Donne's world. However, when referencing other worlds Donne does engage in a type of transference whereby his understanding of his own world is imparted – whether or not it was applicable to do so – onto the foreign land he is discussing. Owing to the incompleteness of Donne's information regarding distant places certain characteristics from his own cultural frame of reference become embedded in his imagining of other places and cultures. Thus, it could be argued that, whilst the idea of nationhood is something of a misnomer at this point, Donne does create 'nations of the mind' whereby he imagines foreign land masses – such as the Americas or Indies – in the context of his understanding of England's social, cultural and political workings.

encapsulates this linking of both the 'New World' and of new worlds. The juxtaposition of 'new spheres' and of 'new lands' (l.6) is a clear indication of a trend in Donne's thinking which shows his desire to create bonds between the 'New World' and an imagined set of new worlds of which, whilst astronomers may be discovering them, little more than the fact of their existence is known. Indeed, whilst it is commonly accepted that exploration often leads to discovery it would seem that, for Donne at least, following the discovery there are two simultaneous paths that the human intellect follows. Firstly, curiosity and a desire to discover more in order to learn and increase knowledge, and secondly, imagination which is aided by the incompleteness of knowledge.

As early as within 'Confined Love' (written in the early 1590s) there are traces of Donne's linking of knowledge, exploration and curiosity. When he declares:

Who'er rigged fair ship to lie in harbours,
And not to seek new lands, or not to deal withal? (ll.15-16)

It is immediately apparent that Donne found that given the potential to explore curiosity would lead humanity to attempt to make discoveries. Furthermore, in the early epigram 'Calez and Guyana' (written between July and August 1597) when Donne announces:

If you spoil of th'Old World's farthest end
To the New World your kindled valours bend,
What brave examples, then, do prove it true
That one thing's end doth still begin a new! (ll.1-4)

It is clear that not only does Donne see the force of human curiosity (in seeking the new once you have dealt with the old) but the poem also hints at a continual cycle of curiosity, discovery, and the gaining of knowledge in suggesting 'one thing's end doth still begin a new'. Additionally, the excited tone at the poem's end hints at the part imagination plays in the act of discovery. It is the bend of 'kindled valours' and the 'brave' nature of humanity that Donne determines to be key in driving the desire to discover, but, the excitement of his final line is drawn from his imagining the potential for something new. It is this imagined

‘new’ that acts to spur men towards discovery and the excitement that Donne finds in the potential of the ‘new’ is drawn from his lack of knowledge. In essence, if he understood what he would find during his exploration it would not have the same allure as the potential discoveries that he can imagine.

The allure of the potential for discovery is again apparent when Donne discusses the discovery of new stars in ‘To the Countess of Huntington’. Donne announces that the sight of a ‘vagrant, transitory comet’ (l.5) causes wonder but:

a new star
Whose motion with the firmament agrees,
Is a miracle, for there no new things are. (ll.6-8)

In this image Donne’s excitement at the potential for discovery is taken further since he describes discoveries when there was no potential to do so. If we were to believe the ancient theories of Aristotle then the heavens are immutable. It is this denial of any potential for change that causes Donne’s supposed wonder in this passage. If this passage is read as being entirely sincere then the ‘miracle’ that Donne has witnessed is the miracle of modern science overcoming ancient theories.

There is, however, a subtle acerbic undertone to Donne’s ‘amazement’. Aristotelian physics formed the basis of Ptolemaic physics and the teachings of these two figures had gained Church support. Since these were the religiously ‘correct’ scientific theories, a mocking tone becomes apparent in Donne’s perception of a ‘miracle’. Miracles have no place in empirical science as anything ‘miraculous’ would appear as a statistical anomaly. Thus, Donne’s ascribing of an explicitly religious title to a scientific misnomer suggests that he is not merely astounded by the discovery of new stars but is concurrently derisive of other people’s astonishment. In essence, in these lines Donne reveals a certain level of excitement at the discoveries of the new astronomy but (potentially owing to the new stars not being particularly recent news at the time of writing ‘The Second Anniversary’) simultaneously

attempts to mask his amazement with a cynical expectation that the ancient science would eventually be proved wrong.³¹⁶ Donne does not merely revel in ‘new knowledge’ but also has an expectancy that there will always be further new understandings that will eradicate older theories.

As the excitement that Donne would, no doubt, have felt at the discovery of new stars, contrary to Aristotle’s teachings, fades from his work he is still drawn to discussing the new stars but (as with his ‘India’ and American metaphors) he begins to experiment with the potential of this new knowledge. In ‘An Epithalamion on the Lady Elizabeth and Frederick, Count Palatine’ (1612-13) Donne asks that the newly married couple imagine that:

Be thou a new star that to us portends
Ends of much wonder; and be thou those ends.
Since thou dost this day in new glory shine,’ (ll.39-41)

and in this reference the ‘new star’ has become synonymous with the act of marriage. In a poem that has a distinct interest in numerical features (Kate Frost has noted how the work ‘mimes both the date of the wedding in its fourteen line stanzas and the eight hours of the day in their numbering’³¹⁷) it is also notable that the unifying of two people into one marriage is compared to the entrance of the new stars (of which there were at this point two significant new stars; Kepler’s and Brahe’s) into the formerly ‘unified’ firmament.

Donne’s interest in the new stars continued into his preaching. Understandably he makes reference to guidance of the Wise men by ‘a star’,³¹⁸ but he also continues this line of stars as guiding forces in man’s attempts to discover new understanding in references that

³¹⁶ Donne’s reticence with regards becoming excited over the new stars can also be explained by the ‘millenarian fervour’ that accompanied the discovery of these stars. Donne is writing in the period that Malabika Sarkar has noted as the time when such fervour had been replaced by a sense of failure as the stars – though thought to be signifiers of change – were not. M. Sarkar, *Cosmos and Character in Paradise Lost* (New York: Palgrave Macmillan, 2012), p.111.

³¹⁷ K. Frost, *Holy Delight* (Princeton: Princeton University Press, 1990), p.102.

³¹⁸ *Sermons*, vol.3, p.270.

focus explicitly upon astronomical science. In the sermon 'Preached upon Whitsunday' 1624 when Donne declares:

Men can teach us wayes how to finde somethings; The Pilot how to finde a Lande,
The Astronomer how to finde a Star; Men can teach us ways how to finde God,³¹⁹

the sciences of geography and astronomy are once again shown to be (in Donne's mind) linked by a theme of discovery and exploration but, most significantly, the path to God is considered a form of discovery also. Donne demonstrates, through his repetition of 'finde', a belief that scientific and religious knowledge can both be taught and unified in a common goal. He also expresses a belief in the role of an expert, be they the astronomer or pilot, in transferring knowledge and again displays a conviction that discoveries can be made by the individual whilst under guidance. We have previously seen all three of these aspects in his 'Verse Letter to Samuel Brooke', though at that point Donne was discussing the best way to give a supposed inferior an amorous education, now Donne suggests that scientific and religious knowledge can be taught in the same manner suggesting that scientific, religious, and sexual knowledge are all symbiotic within Donne's mind-set. Rather than dividing knowledge into arbitrary categories Donne sees all human knowledge as being something that can be mastered and by this master can then be taught to a pupil. Indeed, the pupil's experience of knowledge is deemed as valid a discovery as was the first acknowledgement of the understanding that the pupil is gaining.

Unusually, however, Donne removes the possibility of faith in the system of learning which he implies. Personal religious belief is still acknowledged, due to the suggestion of the discovery of God that the individual can make, but rather than faith Donne suggests that God can be brought to men by teaching. He would have us believe that to learn of God is enough when many would consider that faith (without the need for proofs) is the ideal relationship

³¹⁹ *Sermons*, vol.6, p.129.

between an individual and God. Donne's system is perhaps symptomatic of the turbulent relationship he personally experienced with his faith.³²⁰

Therefore, Donne's interest in the 'new worlds' is clearly a deeply ingrained and multifaceted one. Whilst in his youth the prospect of the new stars and new worlds which scientists claim to have found is thrilling to him even as this initial excitement fades Donne is still drawn to reflect upon these discoveries. The passing of time between the publication of new astronomical discoveries and Donne's reflecting upon them acts to temper and vary his responses. Donne becomes progressively more philosophical in his approach to the prospect of scientific breakthroughs and, with this, attempts to use this new found understanding of the universe to help him understand his daily life. As new knowledge becomes established, so Donne's treatment of it progresses from excitement at his fleeting understanding of cutting edge theory to practical application of his knowledge to help further understand his own existence. Donne takes what is originally a knowledge of what is 'other' and uses it to help understand his 'self'.

This relationship between the external and the internal is also reflected upon in his poem 'To Mr Tilman After he had Taken Orders' and 'A Lent Sermon Preached before the King, at White-Hall' on the sixteenth of February 1620.³²¹ In the first Donne praises how:

If then th'astronomers, whenas they spy
A new-found star, their optics magnify,
How brave are those who with their engines can
Bring man to Heav'n, and Heav'n again to man! (ll.45-8)

And in the second Donne notes:

If another man see, or think he sees more then I; if by the help of his Optick glasses, or perchance but by his imagination, he see a star or two more in any constellation then I do; yet that starre becomes none of the constellation; it adds no limb, no member to the constellation, that was perfect before.

³²⁰ Donne's religious beliefs have been discussed at length, see particularly: F.A. Rowe, *I Launch at Paradise: a Consideration of John Donne, Poet and Preacher* (London: Epworth Press, 1964), and W.R. Mueller, *John Donne: Preacher* (Princeton, N.J.: Princeton University Press, 1962).

³²¹ *Sermons*, vol.3, p.210.

In the poem, Donne's poetic gaze moves from the astronomer's machine (which is an item external to the body and is devised primarily for the purpose of seeing further into the external world than our eyes are capable of doing) through a pun on the word 'engines'³²² to the internal world of the mind of clergymen. In doing so, Donne parallels the actions of the telescope with the mind of figures, such as Mr Tilman, who have taken religious orders by noting that the action of an external machine like the telescope could be seen to be analogous to the internal workings of the mind since both reach outwards in order that they might draw the external world (be it the celestial or religious heavens) closer to man. However, Donne also suggests that the working of the mind surpasses that of the machines devised by the mind since the clergyman not only brings the heavens to man (as the telescope does) but simultaneously brings man to heaven. The external machine is seen to be only a partial reflection of the internal 'engine'. By the time of his sermon six years later Donne no longer feels the need even to acknowledge the semi-analogous nature of the internal workings of the mind and the external devices which are products of the mind. Having become a preacher he has become the expert alluded to in the sermon preached on Whitsunday 1624 (discussed above). Thus, once he is in a position to be the guiding force who teaches others the way to God he disregards the need for the tools that he once felt helped him along his own journey to understanding. Whilst previously the work of astronomers was given value in order that Mr Tilman could be praised (by virtue of his having the ability to bring both heaven to men and men to heaven) Donne now casts off the importance of the astronomers in favour of self-promotion. Having become an 'expert' Donne himself can now perform and surpass the role of the telescope in guiding others as they use knowledge of the external world to guide their own understanding of their self within the world.

³²² 'Engines' is noted by the *OED* as having both the meaning a 'machine, contraption, or mechanism' and simultaneously 'inborn talent, intelligence, or wit; genius'.

The Astronomy of ‘The First Anniversary’.

As discussed earlier in the thesis (p.22), ‘The First Anniversary’ displays a beguiling array of scientific references and this has drawn a wealth of varied critical responses to a poem which has been described as the ‘kaleidoscopic fragments of Donne’s imagination’.³²³ Notably, A. E. Voss has proposed that the work offers a ‘nightmarish landscape of the fallen world’,³²⁴ a position Thomas Hester has further refined,³²⁵ whereas Dennis Quinn has proposed that it is at end points (such as the falling of the world) that ‘celebration and festivity occur’.³²⁶ Indeed, Frost’s sentiments that ‘The First Anniversary’ is part of a ‘literary practice in which communication and artefact could exist together’³²⁷ is typical of a collection of readings that propose an artificiality, or insincerity, about Donne’s work. Frost also goes further, suggesting that the work is indicative of what Stephen Greenblatt defined as a trend for ‘an art that constantly calls attention to its own processes, that includes within itself framing devices and signs of its own createdness’.³²⁸ There have also been those, such as James Clark, who read the poem to display both ‘aversion and desire’³²⁹ and contain ‘satiric portions’,³³⁰ implying that the tone of Donne’s work is neither sincere or otherwise but rather is

³²³ R.E. Hughes, ‘The Woman in Donne’s Anniversaries’, *ELH*, 34:3 (September, 1967), 307-326, p.308.

³²⁴ A.E. Voss, ‘The Structure of Donne’s *Anniversaries*,’ *English Studies in Africa*, 12 (1969), 1-30, p.30.

³²⁵ Thomas Hester, *Kinde Pity and Brave Scorn: John Donne’s Satyres* (North Carolina: Duke University Press, 1982), p.53.

³²⁶ Quinn, ‘Donne’s Anniversary’s as Celebration’, p.100.

³²⁷ Frost, *Holy Delight*, p.82.

³²⁸ Stephen Greenblatt, *Renaissance Self-Fashioning, from More to Shakespeare* (Chicago: University of Chicago Press, 1980), p.190.

³²⁹ J.A. Clark, ‘The Plot of Donne’s Anniversaries’, *Studies in English Literature 1500-1900*, 30:1 (Winter, 1990), 63-77, p.71.

³³⁰ *Ibid*, p.68.

intentionally inconsistent. The already complicated poem has been further problematized through the methods that critics have taken when reading it. Ruth Fox proposed that the two anniversaries be read together since they ‘depend on and comment on each other’³³¹ and Carol Sicherman has gone further still by suggesting that ‘the two parts of the poems relate to each other as draft to revision’.³³² Perhaps the daedal nature of the poem, and the critical responses it has garnered, has best been expressed by Fowler. In approaching Donne’s proposal that ‘new philosophy calls all in doubt’ (l.205) Fowler suggests:

Donne may have meant this as a *contemptus mundi* in the pessimistic spirit of Joseph Hall...Or it may reflect popular bewilderment at the flood of new science or ‘natural philosophy’ – the ever more numerous discoveries, hypotheses, theories, and sceptical inferences... urging the uncertainty of human learning.³³³

And his inability to resolve the issues he raises is indicative of the lengthy, unresolved debates that the poem has generated.

The poem’s reflections upon astronomy are equally as complex as those references to anatomical science which have already been discussed. Donne’s discussion of how ‘from the carcass of the Old World’ a ‘new world’ (ll.75-6) is created clearly reflects upon the same cyclical manner by which ‘Calez and Guyana’ treats the progression of knowledge (and the act of exploration that discovers new knowledge). There is also a suggestion of the vitality of the New World, a vitality that is mirrored in the excitement of Donne’s other literary interactions with ‘new worlds’, and Frank Manley has suggested that this world is in fact Paradise.³³⁴ As we have already seen, these lines also imply the frequently occurring metaphor of the human body as a world in its own right. Perhaps most notable, however, is

³³¹ R. Fox, ‘Donne’s Anniversaries and the Art of Living’, *ELH*, 38:4 (December, 1971), 528-541, p.533.

³³² C. Sicherman, ‘Donne’s Timeless Anniversaries’, *University of Toronto Quarterly*, 39:2 (1970), 128-33, p.129.

³³³ A. Fowler, *Time’s Purpled Masquers: Stars and the Afterlife in Renaissance English Literature* (Oxford: Clarendon Press, 1996), p.33.

³³⁴ F. Manley, *John Donne: The Anniversaries* (Baltimore: Johns Hopkins Press, 1963), p.132.

that Donne populates his 'new worlds' with 'new creatures' (l.76). The knowledge Donne has of the New World he describes is limited, and his discussion of the New World in this passage even more so, and yet from this display of a lack of learning there comes an abundance of creativity. Donne has moved from an initial knowledge of a 'new world' and has inhabited it with 'new creatures' in much the same fashion as God is deemed to have first created Earth and then filled it with beasts. The knowledge of a place that is 'other' allows Donne to imagine further instances of 'otherness'. It is the limited amount of knowledge that he has, therefore, which instigates the ability to interpret creatively that knowledge. Donne is inspired by the New World and from it creates a 'new world' which does not adhere to reality since he has little or no understanding of the reality of the New World.

Donne reflects upon the nature of 'new philosophy' (l.205) more openly as his poem progresses. He claims firstly that 'new philosophy calls all in doubt' (l.205) and then states 'The element of fire is quite put out' (l.206). There is a logical flaw to the progression of Donne's words here as if 'all' is in doubt the 'element of fire' would not have been 'quite put out', rather there would be doubt as to whether or not the fire had been extinguished. Despite this, however, Donne demonstrates clearly his understanding of the nature of new knowledge. The element of fire that Donne speaks of is clearly a reference to the ancient understanding of the four elements and Donne's couplet aims to reflect upon the replacement of older understanding with new science. There is something triumphant about the revolutionary nature of 'new philosophy' deposing ancient thought and yet there is a clear element of dislocation and uneasiness in the potential for established thought to be upturned. Donne's uneasiness continues in his suggestion that 'the Sun is lost, and th'Earth' (l.207) and he finds himself drawn into believing that 'no man's wit Can well direct him where to look for it' (ll.208-9). In comparison to Donne's earlier understanding of new knowledge these lines are most revealing. We have previously seen Donne to revel in the newness of modern science

and, furthermore, create imagined hierarchies based upon the respective authorities of different ‘knowledges’, often favouring new thoughts over old seemingly for little reason other than that they are new. By the time of the writing of ‘The First Anniversary’, however, Donne is now aware of the more concerning side of new knowledge’s ability to destabilise human learning. We are now presented with an image of humanity that is blind to what is real since new knowledge may have displaced the old understanding by proving it wrong but it has not replaced this understanding with a comprehensive new order. Donne is, therefore, tentative in his excitement. His repeated references to an anonymous ‘they’ (l.211) increases the sense of foreboding that prevails in these lines that focuses upon those who ‘seek’ what is ‘new’ and ‘confess that this world’s spent’ (l.209). Indeed, Donne recoils into the safety of ancient knowledge by referencing the ancient atomic theory that he sees the world to have ‘crumbled’ (l.212) into. Donne ends this section of the poem by commiserating that ‘’Tis all in pieces, all coherence gone’ (l.213), and this is possibly the most negative view of new knowledge that he displays in any of his works since ‘Donne turns the optimism of the founders of modern astronomy to pessimism’.³³⁵ The excitement and authority he attributed to new knowledge in his early works has gone and, whilst he clearly finds a space for creativity in the midst of this new learning, he now fears that the incomplete nature of new knowledge has highlighted man’s ignorance rather than extending his understanding.

The fracturing of the ancient astronomy with the input of new theories (which Donne considers in some fashion to reflect the passing of Elizabeth Drury into her ‘new’ afterlife) is also given a less trepidatious description as the poem proceeds. Donne goes into some detail in describing how the ‘various and perplexèd’ (l.253) courses of the heavens have been ‘observed in divers ages’ (l.254) and suggests that it is the complexity of the heavens that causes ‘men to find out so many eccentric parts’ (l.255). Here ‘eccentric’ is a technical

³³⁵ Ibid, p.144.

term³³⁶ and, thus, perhaps less complicated than it may originally seem. However, his use of ‘find out’ is far more complex than it initially appears. Its literal meaning is obvious, however, the phrase also hints at the nature of scientific discovery as being synonymous with geographical exploration. In ‘The Good Morrow’ Donne questions where he might ‘find two fitter hemispheres’ (l.17) which demonstrates the linguistic link Donne draws between ‘finding’ and discovering. If we consider Donne’s other uses of ‘find out’ a further significant feature of the phrase becomes apparent. In ‘The Expostulation’³³⁷ Donne discusses the process by which to ‘find the truth out’ and suggests that there is a ‘wrong way’ (l.21) to do so. In ‘A Valediction: Of the Book’ Donne also proposes to ‘find out alchemy’ (l.54). From these references it is clear that Donne does not just imply discovery and exploration in his use of ‘find out’ but rather there is also an investigative tone. This tone is also not merely investigative but also somewhat cynical. That Donne would ‘find out’ alchemy, a pseudo-science known primarily as a conman’s trick, in the same fashion as an astronomer may ‘find out’ the motions of the stars is telling. The trepidation we noted earlier in the poem has now been replaced by a, slightly conservative, critical voice. The implication of ‘truth’ that ‘The Expostulation’ suggests is also notable since Donne qualifies the pursuit of truth with a moral understanding of the path to truth (by implying it can be found in the ‘wrong way’). Thus, we are given a broader view of Donne’s understanding of the interrelation of astronomical and geographical knowledge. Clearly, by the time he wrote ‘The First Anniversary’ Donne was capable of being both excited by the potential of new knowledge and nervous of the vast gaps in human understanding that new ideas reveal. Similarly, he appreciated the concept of pursuing knowledge as a pursuit of truth but had reservations about the morality of the

³³⁶ There are both Copernican and Ptolemaic variants of the ‘eccentric’. Ptolemy’s ‘eccentric’ allowed for the deferent (or large circular orbit of each planetary body within which smaller ‘epicycles’ were considered to occur) to be centred close to but not precisely upon the Earth. Copernicus’ performed a similar function in relation to the Sun.

³³⁷ Robbins notes that ‘The Expostulation’ is of doubted authorship which is, of course, significant, however, traditionally the poem has been ascribed to Donne.

methods used to access it. Perhaps the most significant issue that Donne's use of 'find out' raises is that it again shows Donne (as we saw in his earlier work) to refuse to compartmentalise, not only knowledge, but the creative process. Donne does not separate geography from astronomy nor does he separate astronomy from anatomy and this is due to a belief that mankind will always pursue further knowledge once they have begun to explore an area of learning. Donne demonstrates a belief that the instigation of the process by which knowledge is gathered (most commonly imagined as an exploration within his work) in turn causes a reaction in which curiosity is inherent and often men search with little or no concern for the morality of the search for knowledge which they undertake. 'The First Anniversary' represents, therefore, a distinctive point in Donne's treatment of, particularly, scientific knowledge and discovery since we begin to see a trepidation and conservativeness in Donne's reaction to the destabilising nature of 'new knowledge' to which previously he had only responded with enthusiasm.

Having suggested the manner and morality of knowledge acquisition (as well as accepting that curiosity, in tandem with the workings of the imagination, are innate aspects of humanity's response to intellectual questions) Donne continues to demonstrate his own understanding of the state of astronomical science. He describes how 'in those constellations there arise New stars' (ll.259-60) and over the next twenty four lines demonstrates a subtle, but significant, evolution of his thought processes. Initially, he displays the same conservative concerns with regards the new knowledge that we have noted elsewhere. Donne is still nervous that the old knowledge may 'vanish from our eyes' (l.260) and the focus upon seeing here is notable. Since new astronomical knowledge is being created based upon the observations of scientists Donne's use of 'eyes' is particularly notable as it hints that the new methodologies have already interfered with Donne's 'old knowledge'.

Similarly, Donne also suggests that the influence of new knowledge might act ‘As though heav’n suffered earthquakes’ (l.261). The fracturing, dislocating, and dangerous aspect of knowledge is clearly expressed here, as is the danger of ‘new’ knowledge. However, this fear is subtly tempered by Donne’s phrasing. That he speaks of ‘heav’n’ is both a reference to the astronomical heavens and the Christian heaven and is designed to magnify the scale of the fear-inducing danger that he has perceived within the action of new knowledge. His use of ‘as though’, however, undermines the supposed threat. By claiming that this is ‘as though’ an earthquake has occurred Donne subtly suggests that the catastrophic action that is feared is actually imagined. Thus, whilst it is ‘as though’ there has been a disaster Donne does not feel that there has been. Equally, that the danger new knowledge presents is compared to a natural disaster is telling. This would seem to classify ‘new knowledge’ as being entirely natural within Donne’s understanding. He suggests that the discovery of new knowledge may be a volatile action but it is entirely natural and not as dangerous as many would perceive it to be.

That Donne’s poem continues to demonstrate astronomical knowledge and the conservative (and occasionally alarmist) overtones that he highlights are continually reduced as the poem progresses has often been mistaken for ‘insincerity’.³³⁸ When Donne states:

They have impaled within a zodiac
The free-born Sun, and keep twelve signs awake
To watch his steps: the Goat and Crab control
And fright him back, who else to either pole
(Did not these tropics fetter him) might run:
For his course is not round, nor can the Sun
Perfect a circle, or maintain his way
One inch direct; but where he rose today
He comes no more, but with a cozening line (ll.263-271)

he offers the fullest, and most significant, demonstration of his appreciation of both the new astronomy and the philosophical concerns regarding the new astronomy within ‘The First

³³⁸ Targoff discusses the reasons for critics deeming Donne’s anniversaries to be insincere in Targoff, *John Donne, Body and Soul*, p.86.

Anniversary'. This extended description of the Sun's place in the heavens begins with the suggestions of danger and imposition, through the use of 'impaled' (l.263), that we have seen elsewhere. Equally the 'Goat and Crab' (l.265) who 'control' and 'fright' (l.266) the Sun can be perceived as malevolent forces within the poem. However, this passage's main focus is in expressing Donne's personal understanding of the new astronomy. By claiming the 'free-born Sun' to be still³³⁹ he refers to Copernicus's theory but then seems to muddle his sources by referring to the zodiac as if this too is a new development. Rather than Donne being confused, this supposed confusion actually reflects the misperception of those who are nervous and resisting of the new science. The zodiac is clearly a demonstration of 'old' knowledge, given it features in Ptolemy's *Almagest* which along with Aristotle's *Physics* are the principal texts on which the old astronomy is based, and, thus, to suggest that it is the zodiac that has caused the Sun to stop moving is illogical and through this false logic Donne mocks those abstaining from and resisting the path of the new astronomy. There is also a further defence of the new science implied by the method of Donne's mockery. Donne's focus upon the zodiac, and the animal signifiers of various constellations, displays his interest in the imaginative aspects that are inherent to new knowledge. Without creative thought it is impossible for knowledge to progress and here Donne demonstrates that it is the imagination of those fearful of advancement that initiated resentment of the new philosophy. Thus, since imagination is a crucial tool within the creation of new knowledge Donne mocks resistance to the new science further by suggesting that unsubstantiated imaginative thought is the reason for the failure to accept empirically supported creative thoughts. Therefore, those unwilling to accept the new science are demonstrating the same creative urge that those discovering new understanding have displayed, but do so in what Donne presents as a valueless fashion.

³³⁹ That the Sun is 'impaled' would imply that it is stuck and, therefore, motionless. Donne does continue by talking of the Sun's 'steps', however, these are said to be being watched by Capricorn and Cancer in order that they might 'fetter' the Sun to prevent him from running 'to either pole'. It would seem as though the Sun is deemed capable of movement (and possibly previously had movement – as was the understanding of the Ptolemaic system) but that it no longer is afforded this ability.

Donne completes his tonal shift, from conservative fear at the new science to a more liberal acceptance, when he states:

Man hath weaved out a net, and this net thrown
Upon the heavens, and now they are his own.
Loath to go up a hill, or labour thus
To go to heaven, we make heaven come to us.
We spur, we rein the stars, and in their race
They're diversely content t'obey our pace. (ll.279-284)

Here, the reference to man creating a net which has been thrown upon the heavens mimics the action of fishermen and by comparing the work of the astronomer to the practice of fishing Donne implies that even the new astronomy has its roots within humanity's past. That one of the oldest professions can be compared with the work of leading scientists acts to normalise and naturalise the work of science making it seem a routine and familiar employment for the human mind. That the stars are 'content t'obey' (l.284), or at least be supplicant to, the attempts by astronomers to understand them acts to complete the shift in perspectives that Donne undergoes within 'The First Anniversary'. Not only has the new philosophy stopped being seen as a moral and physical danger it has, by this point, become an entirely natural pursuit that works in harmony with the world around us.³⁴⁰ Donne demonstrates that the pursuit of knowledge is not only natural but that the natural world is a willing partner in being explored and learned about. His suggestion that man has made 'heaven come to us' (l.282) is also notable since Donne ends his discussion of the new astronomy with a reference that mimics the newest developments in astronomy. Galileo's telescopic observations were first published in 1610, and in this final line not only has Donne suggested that humanity and nature are working in unison to provide the world with knowledge, he does so in a fashion that implies the action of the telescope by making what is far away seem nearer.

³⁴⁰ It would be wrong to suggest that the new astronomy could not be simultaneously dangerous and natural, however, Donne seems to work on the supposition that 'naturalness' negates the harm of dangerous acts.

Donne's Astronomical Authors.

'Doest thou seeke after the Author? It is in vaine'; it is with this challenge that Donne opens *Ignatius His Conclave*. The book was entered into the Stationers' Register, without an author, on the 18th of May 1611, a translation of *Conclave Ignati*, a work published earlier that year. Within this work which 'amply testifies' the fact that Donne became 'a bitter and lifelong opponent of the Jesuits'³⁴¹ are some of the most direct references to the key astronomical figures of Donne's age, notably Kepler, Copernicus, and Galileo.

Within *Ignatius* the manner by which Donne hides his authorship from those who 'seeke' it juxtaposed with his fixed approach to noting specifically a range of astronomical authors is particularly intriguing. Simpson notes how the 'scurrilous' and 'lively satire' within *Ignatius* first appeared 'anonymously in two forms – Latin and English – whilst the title-page of the English edition stated that it was 'translated out of Latin''.³⁴² Despite Donne's name not appearing in his own work, Galileo, Kepler, Copernicus, Ptolemy, and Brahe are all named within the tract. The act of naming the astronomers is a pivotal feature of Donne's treatment of the scientists. Whilst Donne remains anonymous within the work he removes the potential for the astronomers to be granted such a luxury. Thus, their characters and our opinions of them are drawn from not merely their personages but also from their works. Indeed, as will we later see, the role of the astronomers within Donne's text focuses intently upon their being authors of scientific works rather than their scientific discoveries. Astronomers, or at least the authors of astronomical texts, have an undoubtedly significant role within *Ignatius*. Galileo's *Siderius Nuncius* is referenced twice within the work's

³⁴¹ Frost, p.7.

³⁴² E. Simpson, *The Prose Works of John Donne* (Oxford: Clarendon Press, 1924), p.179.

marginalia. Kepler's works too are named as references within the margins of *Ignatius*. Copernicus's *De Revolutionibus* is named within the text proper as is Ptolemy's *Almagest*. It is only Brahe's works that go un-noted. Indeed, of the group I have named Brahe is the only one whose texts are irrelevant to Donne's naming of these historical figures. Brahe is used rather as a foil by which Donne mocks Kepler. The mockery is not unique, nor is it original, since Donne repeats a reference that we have already seen elsewhere in this thesis in his *Paradoxes and Problems*. When Donne defines Kepler as he 'who (as himselfe testifies of himselfe) ever since Tycho Baches death, hath received it into his care, that no new thing should be done in heaven without his knowledge',³⁴³ there is an unquestionable mocking tone. Indeed, the parody is made all the greater by the fact the Donne has altered the original text so little. Kepler's self-importance and pomposity become the defining features of the caricature which Donne creates of him.³⁴⁴ As we shall see, it is not merely Kepler that receives this satirical treatment.

Donne's obsession with these astronomers as authors, rather than as men of science, is again apparent in his depiction of Galileo. Out of a false reverence, when Donne wishes to speak of 'the planets, and of all those which are fixed in the firmament',³⁴⁵ he retreats from doing so claiming:

I thinke it an honest part as yet to be silent, then to do *Galilaeo* wrong by speaking of it, who of late hath summoned the other worlds, the Stars to come nearer to him, and give him an account of themselves.³⁴⁶

³⁴³ All references to *Ignatius His Conclave* within this thesis are taken from, J. Donne, *Ignatius His Conclave*, ed. T.S. Healy (Oxford: Clarendon Press, 1969), p.7.

³⁴⁴ Marjorie Nicolson, 'Kepler, the Somnium, and John Donne', *Journal of the History of Ideas*, 1:3 (June, 1940), 259-280, p.268 notes that Kepler would later have the opportunity to read *Conclave Ignati* and was, perhaps understandably, unimpressed by Donne's work believing it to be an 'impudent satire' and that the work's dream-like framework, cosmic voyage and imagining of the moon to be inhabitable were elements drawn from his own treatise *Somnium*.

³⁴⁵ Ibid.

³⁴⁶ Ibid.

In these lines, Donne's supposedly reverential tone bows before the superior knowledge of Galileo. Wrongly to represent the heavens would seemingly personally wrong the *author* of those heavens. I use 'author' here specifically since Donne does not shy from discussing the contents of the universe in terms of the works of God, the creator of the heavens, but rather in terms of Galileo, who had so recently authored a work on the nature of the heavens (*Siderius Nuncius* was published in Venice in March of 1610).

The timing of the publication of *Siderius Nuncius* is worthy of note here. For Donne's work to have entered the Stationers' Register in early 1611, it must have been in composition in late 1610. Given that *Siderius Nuncius* was first published in Italy in March of the same year, the rapid inclusion of the work into Donne's own is greatly informative with regards to his reading habits. Not only must Donne have sought out a copy (or at least have been sent one, knowing it would be of interest to him) rapidly after the book's publication but, furthermore, he must have read, understood, and felt confident of satirically referencing the text in a very small space of time. Galileo's text is not as mathematically complex as Ptolemy's *Almagest*, nor as dense as Kepler's works, but this does not reduce the achievement in Donne's sourcing, consuming, and then using of Galileo's text. Furthermore, if Donne was so eager to act upon the publication of Galileo's work it raises a great deal of questions over whether Galileo's work is unique within Donne's reading or whether for Donne such a rapid accessing, and assimilating, of knowledge was common practice. The final thing to note is that Donne has linked Galileo's work with the most important works in the history of astronomical science (Ptolemy's being the most significant of the ancient world, Copernicus's as the re-writing of the fundamental beliefs of the universe's composition, Kepler's as the basis for many of our modern understandings.) There is something immensely impressive in the fact that Donne, a non-scientific writer, could,

without the aid of hindsight, position Galileo's work so correctly amongst the most significant astronomical works of the period.³⁴⁷

However, Donne's 'reverence' in his deference to Galileo's authority is undermined by his tone as it was in his quoting of Kepler. By suggesting that Galileo's telescope 'summoned' the other worlds to 'come nearer' Donne implies a sorcery or witchcraft about Galileo's actions which denies them the actual craft that was present in his designing and refining the telescope for astronomical use. Furthermore, that the astronomical bodies 'give him [Galileo] an account of themselves' is also undermining of Galileo as both scientist and author. If the heavenly bodies are telling Galileo openly of their natures then the act of defining and discovery that Galileo undergoes within *Siderius Nuncius* is deemed worthless since Galileo's scientific and authorial attributes are deemed mere reportage. The use of 'an account' is also noteworthy since, given the disbelief that surrounded Galileo's telescope,³⁴⁸ that the planets only give 'an' account rather than 'the' definitive account suggests there is room for falsehood within Galileo's work. This gap for falsehood, combined with the fact that Galileo is presented as an author far more strongly than he is a scientist, suggests that Donne's satire aims to destabilise the power of *Siderius Nuncius* by simply making it appear a collection of fictions.

The uniting of authors and anonymity that Donne proposes in his opening to *Ignatius* continues in his descriptions of Copernicus. Once again, Donne takes a key scientific figure within the field of astronomy and undermines him. Intriguingly, whilst Galileo and Kepler are named directly, Copernicus's name is withheld until after his description. As with Galileo and Kepler, Copernicus is wrongfully treated and the basis of this treatment is his literary output. Donne claims Copernicus to be the one who aimed 'to finde, to deride, to detrude

³⁴⁷ Indeed, there is something prototypic about Donne's ability to group these texts. For more on Donne's ability to foresee intellectual developments see p.23.

³⁴⁸ This will be discussed further in the chapter on 'Astronomy and Knowledge in Milton's Works' (p.225).

Ptolomey' and yet this is an unfair appraisal of Copernicus's work. Within *De Revolutionibus* he, as has been discussed elsewhere in this thesis (p.243), is respectful of Ptolemy's work, and very cautious in his approach to his discoveries. For Donne to present him 'scarce respecting Lucifer' as he screams at Hell's gates 'Are these shut against me? To whom all the Heavens were ever open' seems ridiculous.³⁴⁹ To any reader of Copernicus's work, this phrase is a clear and obvious piece of satire. Thus, Copernicus's importance to Donne's work is here again primarily as a literary influence rather than a scientific one. Even when Donne chooses to note Copernicus's scientific achievements he does so in an idiosyncratic fashion. Copernicus is seen to claim to be 'a Soule to the Earth' as he 'gave it motion' referencing both the renaissance idea that the soul is the part of an individual that gives it motion and also Copernicus's theory of a helio-centric universe. However as we have previously seen with the presentation of Galileo's work, Copernicus's work is undermined by the manner through which Donne reveals his knowledge of it. If it was Copernicus who 'gave' the Earth motion it would appear that the Earth had no motion before Copernicus wrote of it. Rather than a scientific discovery Copernicus's work becomes a scientific fiction whereby the motion of the Earth was given to it by his authorship. Thus, in the early part of *Ignatius* we see Donne playfully undermining the scientific merits of these illustrious astronomical figures and satirising not only their personalities but also their professions. Donne attacks the discoveries of early modern science so as to turn discoveries into literary creations.

Therefore, within the opening to *Ignatius* we are presented with a paradox of authorship. Donne has hidden his own name from his text, and yet is flagrant in his use of other writers and their texts. Donne is at once satirically minded and factually accurate in his presentation of the astronomers (the discoveries he attributes to them are accurate, albeit presented in a sceptical and mischievous fashion). Furthermore, Donne is clearly interested

³⁴⁹ *Ignatius*, p.13. It is worth noting that for Donne to be so directly opposing the stylistic traits of Copernicus's work he must, as we have seen with Galileo's text, have been very well acquainted with it.

far more in the scientific figures behind the works than the works themselves. It would appear that the 'scientific' nature of the works is unimportant to Donne; rather it is the authority of the authors that he seeks to explore. In undermining the astronomers as scientists Donne presents them as authors and, in being authors, undermines the astronomers' respective authorities. Thus, he is becomes allowed to question what is fictional and factual within the work of the astronomers since he has removed the 'authority' that a scientific label would proffer to the works he is critiquing.

The question remains, though, as to what purpose Donne has in removing scientific authority by placing scientists on a par with authors of fiction. We have previously seen Donne to be intently aware of hierarchies within the respective authorities of different genres of literature. Equally, we have previously seen Donne borrowing authority from the work of others. Within *Biathanatos* in particular Coffin's understanding of Donne's enthrallment with the new sciences is clear. Donne uses scientific references in those instances to bolster the argument that he is employing. Within *Ignatius*, however, Donne is not proposing an argument in the same formal manner as he did within *Biathanatos*. Instead Donne is using satire and humour to undermine and criticise the workings of the Jesuit belief system. Thus, when he employs external 'knowledge' it is not as support for his argument, but rather as fuel for his mockery. Since *Biathanatos* was composed between eighteen months to two years prior to the composition of *Ignatius* it would seem foolish to envision Donne having undergone an enormous transformation in his development as a literary figure. Rather it would seem that Donne was, even at this point in his career, inherently aware of the importance of context. Within the clearly more serious surroundings of *Biathanatos* the works of Kepler are referenced in acknowledgement of the perceived authority that scientific study has. Explicit demonstration of scientific knowledge becomes a supporting feature of the strength of the logic and the intelligence of the mind that formulated the arguments to which

scientific authority provides support. Within *Ignatius* Donne is working in a framework that is both satirical and sinister. It is not that he does not need to use the perceived ‘authority’ that scientific studies are deemed to possess but rather that the authority is used in a different manner. In an earlier chapter we have seen Donne to be implicitly promoting hierarchies between various branches of knowledge and that these hierarchies are sustained by the perceived authority that each branch is deemed to retain. Within *Ignatius*, rather than borrowing authority to support a thesis, Donne’s thesis is one of stripping authority.³⁵⁰ As he is acting satirically against Jesuit behaviours throughout the text he is simultaneously undermining the value and authority of Jesuit beliefs and practices. Thus, when he incorporates astronomical science he undermines the authority of this so as to enhance the authority of his narratorial voice. The astronomical section of *Ignatius* occurs very early on within the text at a point when Donne is still formulating his narratorial voice. For a reader to see the narrator dismantle and undermine a branch of knowledge that is deemed to be ‘authoritative’, such as that of astronomical science, prepares the reader’s expectations for the undermining of Jesuit and Catholic doctrine that will follow. Thus, Donne uses the common perception of science as an authority to his advantage by removing the authority it is nominally believed to hold. Donne’s satirical narrator becomes more forceful within the reader’s mind, since the narrator demonstrates an ability to display the supposed ‘truths’ behind the authoritative mask that various knowledge branches are perceived as having. We have already seen that Donne’s exposure of the scientists as mere ‘authors’ rather than discoverers is not entirely fair but once he has demonstrated an ability to create doubt at the teachings of science it becomes possible for him to create doubt at the teachings of religion.

³⁵⁰ In some senses, Donne’s satire of astronomy mirrors his blazoning of the human figure. Methodologically, both in *Ignatius* and in those works that approach anatomical science, Donne attempts to understand, or to expose truth, through reduction, or anatomisation, of his subject.

Whilst Donne is here demonstrating the same faith in hierarchies of knowledge that we saw in his earlier work, albeit with a different and more destructive intention, it is interesting to note that he is still keen on including ‘new’ knowledge into his works. Within his earlier work we saw a tendency for Donne to prefer and promote the significance of newer scientific literature over older texts. This tendency is still apparent within *Ignatius*. We have seen how Galileo’s work is extremely new at the point of Donne writing and it is perhaps this newness that causes Donne to reference the work twice within *Ignatius*. As Martz has suggested; the novelty of this work as a curiosity merits its inclusion within Donne’s own work. Whilst Copernicus, Brahe, Kepler, and Ptolemy are all noted within this opening astronomical section, it is only Galileo who also appears again at the end of the work. Not only does Galileo make two distinct appearances within the text but this second appearance makes Galileo’s text the most fully explained of any of the astronomical texts within *Ignatius*. Donne describes how:

Galilaeo the Florentine... 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 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.³⁵¹

Not only is Donne’s mastery of Galileo’s text apparent in this passage but so is a playful awareness of the dangers of the ‘satisfaction’ that Galileo has found in bringing the moon ‘as neere the earth as he will’. We have earlier seen Copernicus turned away from Hell, at the whim of Ignatius, and now the work of Galileo (which is Copernican in its theoretical understanding) is seen to be used by Lucifer to ensure Ignatius himself is turned away from Hell. Most obviously, Donne has linked astronomical curiosity with being in some way impious but in this second reference to Galileo Donne suggests that there is something

³⁵¹ *Ignatius*, p.81.

actively satanic. Galileo has made the moon more accessible and should the Jesuits be sent there (as Donne's treatise proposes) then 'after the Jesuites have been there a little while, there will soon grow naturally a hell in that world also'.³⁵² Thus, Galileo's work can be seen to 'propagate many hells'.³⁵³ Therefore, the inclusion of Galileo's work within *Ignatius* reveals a new aspect to Donne's understanding and handling of knowledge. Whilst we have previously seen Donne to be using 'new' knowledge to promote the reader's perception of his knowledge such a reading would seem obtuse in a work intentionally published without an author. Rather, within *Ignatius* Donne demonstrates two further aspects of his treatment of 'new' knowledge. We have already seen Donne's voracity when acquiring knowledge and his personal belief in the authority this knowledge can display but now we also see Donne demonstrating an awareness that 'new' knowledge is not without its detractors. Galileo's work, being the most recent of the astronomical texts Donne references, is demonstrated to have an element of untrustworthiness and danger that is drawn from its newness (contrary to the authority that Donne perceived in newness in his referencing of Kepler's discovery of a new star over Brahe's earlier discovery of a further 'new' star). The fear Donne strikes within his reader is of the propagation of new Hells rather than the continuance of the pre-existing Hell. Thus, the 'new' knowledge is dangerous as it may be fertile ground for the growth of impiety.

The second aspect of Donne's perception of 'new' knowledge that is revealed is the potential for this knowledge in turn to become revised. By mentioning that Galileo will already have made 'new glasses' with which he will be gaining another level of insight Donne reveals an awareness of the continual growth of knowledge. This awareness of knowledge as not merely being unstable but also as being a continuing process of discovery

³⁵² Ibid.

³⁵³ Ibid.

and improvement was absent from Donne's earlier works. Previously, Donne had used his knowledge boastfully presenting an awareness of the latest astronomical theories in order to claim authority for his arguments (since very new knowledge can have no established criticisms or detractors). However, within *Ignatius* Donne's authorial anonymity forces him into a more developed understanding of the progress of human knowledge. R. Chris Hassel has noted the complicated nature of authoritative knowledge in explaining how 'Ptolemy's 'opinion' was a truth for almost fifteen hundred years'.³⁵⁴ Hassel implies that the fact that a work had authority for a considerable amount of time acts to increase the perceived authority of a work. Ultimately, that Ptolemy's works were believed for so long makes their authority more difficult to undermine, even when newer understandings seem more logical and correct. Complications such as this are more apparent within Donne's handling of 'new' knowledge within *Ignatius* than within his earlier work. Donne demonstrates a willingness to accept that what is once considered 'new' learning loses this newness once it has been understood and, furthermore, that 'new' knowledge is in a process of being continually renewed, revised, and replaced. Thus, a demonstration of 'new' knowledge does not have the authority that Donne had previously, albeit in works of very different contexts, deemed it to have. What is 'new' is only temporarily so and the authority of established knowledge, such as Ptolemy's, does not disappear upon the arrival of a new theory.

Therefore, Donne clearly took a keen interest in the workings of 'the new and expanding thought around him.'³⁵⁵ He was well versed in it and valued the knowledge as being of both interest and significance even to a non-scientific figure such as himself. We saw earlier in this thesis Donne's tendency to use his knowledge as a form of intellectual display and there is still a suggestion of this within *Ignatius* (particularly since the knowledge

³⁵⁴ R. Chris Hassel, 'Donne's *Ignatius his Conclave* and the New Astronomy', *Modern Philology*, 68:4 (May, 1971), 329-37, p.331.

³⁵⁵ E. Hardy, *A Spirit in Conflict*, p.124.

Donne displays of Galileo would not have had time to become particularly wide-spread given how quickly he incorporated *Siderius Nuncius* into his own writing). We have also seen Donne create artificial ‘hierarchies’ between various knowledge groups. Previously, this had allowed him to position various branches of knowledge alongside each other as discrete entities with their importance valued by way of their respective authorities. There are suggestions of this within *Ignatius*, however, of more note within this text is the suggestion that Donne can see beyond the nominal boundaries that are created by adding a ‘genre’ label to different ‘types’ of knowledge. By reducing the work of the astronomers to the literature of a group of authors, Donne strips astronomical theory of the ability to be deemed ‘scientific’. Thus, all of the suggestions of hierarchies of knowledge that we have seen Donne to propose, and in certain situations adhere to, are reduced in importance within *Ignatius*. Rather, Donne presents a personal understanding of knowledge that is far more unified than any that would deem divisions of knowledge (along lines of ‘type’ or ‘genre’) to be appropriate. Donne’s conception of knowledge within *Ignatius* proposes that due to the nature of all texts as ‘authored’ the knowledge they contain can be perceived as being of equal value. It is a key feature to his satire that Donne proposes such a thesis since in order to satirise both theology and scientific understanding (as he does within *Ignatius*) he must first make his readers aware of the potential for supposedly authoritative (in the case of scientific) or infallible (in the case of religious) literatures to be inaccurate.

Thus, the three major propositions which we have seen from Coffin, Martz, and Kermode with regards to Donne’s treatment of astronomy can all be deemed to be partially true. The presence of Galileo’s work displays the excitement Coffin perceived in Donne and, simultaneously, is clearly an intellectual curiosity as Martz proposes; that Donne ultimately turns his back on the authority based hierarchies that he demonstrated in his early works is also an indicator of Kermode’s theory that Donne was aware of the inherent instability of all

human knowledge. Donne's thought also goes beyond this, however. He does not merely assess scientific knowledge and make arbitrary qualitative judgements on it. Donne presents scientific knowledge, within *Ignatius* at least, as being part of a far larger group of 'authored' understandings all of which have value to his own works. Donne uses them selectively and presents them in different manners dependent upon how they will best enhance his own work, thus, displaying a far more complex conceptualisation of knowledge than Coffin, Martz, or Kermode ever allowed for.

As well as Donne's clear belief in the promotion of scientific figures as 'authors' *Ignatius* is notable for its presentation of another key feature of the new science and its proponents. As we have seen previously, this thesis aims to inspect those sciences which seem to have most greatly benefitted from an increased faith in observation. Anatomy, geography, and astronomy all contain common ideas of exploration and, more precisely, exploration that is dependent upon eye-witness account to relay information. The body, the Earth, and the stars are explored, new features discovered and those that first see these discoveries give these discoveries names. Within *Ignatius*, Donne too explores the concept of discovery through sight. Donne informs the reader at the book's opening that 'I will relate what I saw'.³⁵⁶ Given this declaration, the narrator's authority within the piece can be termed dependent upon the clarity of his sight. Thus, it is telling that the narrator should later declare 'I saw them not' with regards to purgatory and limbo because he preferred to focus upon 'new places never discovered before'.³⁵⁷ There is an implicit criticism of eye-witness accounts in Donne's decision to exclude certain elements of Hell's landscape on the grounds that they lack the novelty of being his personal 'discoveries'. When we consider the astronomical figures that Donne describes, and only grudgingly gives credit to for their

³⁵⁶ *Ignatius*, p.5.

³⁵⁷ *Ibid*, p.9.

position within what he terms ‘great learning’³⁵⁸ the potential for human sight to be biased is revealing. Furthermore, Donne claims to have taken on the ‘benefit of certaine spectacles’³⁵⁹ and the link between Donne’s imagined eye-glasses and Galileo’s telescope is unquestionable.³⁶⁰ Thus, Donne presents the failings of human sight, and complicates the issue of seeing by adding a device that enhances sight.

The suggestion that human sight may be ‘biased’ towards discovery of what is new, at the ignorance of what is already deemed to be known, is of great importance to understanding the nature of the depiction of astronomical figure within *Ignatius*. We have seen Donne to criticise these astronomical authors because of their potential to create, or conjure, the things they have supposedly discovered and now Donne suggests that human sight is naturally bent towards this way of viewing the world. If Donne’s own narratorial figure suffers from a lack of clarity of vision then surely the authors he evokes are deemed to suffer from the same issue. The nature of their discoveries are, therefore, not merely authored but are authored owing to a failure of their senses. The astronomical discoveries Donne writes on can be seen as the product of authors ignoring what is known for the promotion of their own creation and disregarding what has previously been established. In this sense, new astronomical discoveries can be termed novelties. The importance of each discovery is undermined by the suggestion that it is born of falsehood and ignorance.

The introduction by Donne of glasses that enhance his vision of the world is also problematic particularly in relation to the presentation of Galileo. Despite the glasses, which supposedly enhance Donne’s sight, Donne still does not see limbo and purgatory. Furthermore, the idea of enhancing sight through extra-sensory devices is deemed unreliable.

³⁵⁸ Ibid, p.15.

³⁵⁹ Ibid, p.7.

³⁶⁰ Donne terms Galileo’s device to be ‘glasses’, in much the same way as he terms the device he now uses to view Hell also to be glasses. Further to this, Galileo himself refers to his telescope as being ‘eye-glasses’ within *Siderius Nuncius* (not using the word telescope until later works).

Worse than this, the device is seen to work actively against a clarity of vision. Owing to the glasses Donne believes he can see:

all the channels in the bowels of the Earth; and all the inhabitants of all nations, and of all ages were suddenly made familiar to me.³⁶¹

Given his later admission of not seeing purgatory, however, the device becomes one of deception. Donne gains confidence in his sight at the supposed enhancement of his vision by spectacles but the truth is that they have not perfected what we already know to be an imperfect vision. Ocular perception, even enhanced-ocular perception, is deemed to be imperfect and the discoveries based upon these senses are drawn into question.

Donne does not merely question the authority of scientific discovery through his disparaging of sight though. Having praised these glasses Donne deems that:

*Robert Aquinas*³⁶² when he tooke Christs long Oration, as he hung upon the Crosse, did use some such instrument as this, but applied to the eare.³⁶³

This revelation not only throws doubt on the accounts of Christ's final words (since any device that is based upon Donne's spectacles, even if applied to another sense organ, would presumably still be flawed in its nature) but furthermore supports the conclusions found earlier in this work's discussion of the authority of various branches of knowledge within *Ignatius*. Not only does Donne's decision reduce all literature, be it fictional or factual, to the level of an 'authored' piece of writing but now we see Donne to be damning scientific, religious, and even his own writing owing to the failings of the human senses. Key religious and scientific texts have their respective authorities stripped by the suggestion that as they were founded upon mankind gaining knowledge through their senses there are inherent flaws.

³⁶¹ *Ignatius*, pp.7-9.

³⁶² The reference to 'Robert Aquinas' is credited by Healy, *Ignatius*, p.104, as being a quotation from Alphonso Paleoti's 1607 'compendium of meditations, prayers, and information about the Passion of Christ' *Jesu Christi Crucifixi Stigmata Sacrae Sindoni Impressa... Explicata*. This work is also referenced in *Pseudo-Martyr and Biathanatos*.

³⁶³ *Ignatius*, p.9.

This in turn is further complicated since the text in which the inherent flaws of sensory perception are revealed is itself dependent upon the sensory perception of Donne's narrator.

Donne's satire, therefore, ably undermines any notion of written authority, and in doing so promotes a tone that allows him continually to attack Catholic teachings throughout *Ignatius*. The final complication caused by the logic Donne promotes is one that subtly gives Donne immunity from any criticism of his work. Should Donne's satire come under attack for the voracity of its attacks on scientific and Catholic teachings the nature of Donne's satire, since it is considered to be as inherently flawed as the texts in which he is perceiving flaws, would have given Donne freedom from any personal responsibility for his words. This feature combined with Donne's authorial anonymity within the work gives *Ignatius* an intangible quality. The work is at once a staunch satire that reveals the failings of key religious and scientific texts, and yet the paradox Donne creates surrounding the authority of texts authored on the grounds of sensory observations creates a doubt as to how certain Donne was of the truth of his own criticisms.

The manner by which Donne 'sees' Hell has been discussed elsewhere by Julián Jiménez Heffernan.³⁶⁴ Heffernan draws a distinctive and useful similarity between Donne's description of how:

I was in an Extasie, and My little wandring sportful Soule, / Ghest, and Companion of my body, 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 Islands, the Planets, and of all those which are fixed in the firmament. (pp. 6-7)

And Giordano Bruno's understanding of 'extasies'.³⁶⁵

Heffernan does not, however, pursue the point beyond merely noting the potential for Bruno to be a source for Donne's description. As we have seen, the nature of Donne's

³⁶⁴ J.J. Heffernan, 'John Donne and the New Universe: Retaking the Issue', *Sederi*, 8 (1997), 65-74.

³⁶⁵ *Ibid*, p.71.

viewing of Hell has clear references to Galileo's viewing of the heavens and when we combine this with Heffernan's suggestion further understanding can be found. The biographies of both Galileo and Bruno have a key similarity in their respective mistreatment at the hands of the inquisition. Indeed, both suffered not only because of a supposed impiety in their belief in the Copernican model of the universe but because of their active roles in pursuing and improving the Copernican theory.³⁶⁶ Galileo's telescope, thanks to the discovery of the moons of Jupiter, helped to remove the often cited criticism of Copernican theory; namely that if the Earth were not at the centre of the universe how might the moon stay in orbit about the Earth (since clearly if two planets are known to have moons both cannot be at the centre of the universe and, thus, it must be possible for an orbiting planet to in turn have bodies that orbit it). Bruno in his philosophising suggested that the Sun was not merely central to the universe but was simultaneously little more than a star. Thus, it is notable that when Donne is highlighting the failure of sight (which we have earlier termed a criticism of Galileo and his telescope) he uses as a source another astronomer (and philosopher) who had a great many similarities to Galileo. In effect, not only is Donne casting doubt upon the discoveries Galileo made but he is now also satirising Galileo's choice to pursue such discoveries at all. We have seen how Galileo's discoveries are questioned by Donne's questioning of vision (and in particular enhanced vision) and now Galileo's decision to observe the heavens at all is made to seem foolish by Donne's citing of a pre-cursor to Galileo who displayed many proto-Galilean traits and suffered greatly for them. Galileo is now not only a figure whose findings have been reduced to the level of an author's fictions, whereby both the findings and methodology behind his fame are debunked, but is also made to look further foolish since his very desire to produce such findings is now deemed fit for ridicule. Donne has subtly undermined Galileo's discoveries, methodology, and even desire

³⁶⁶ Bruno was also noted as a believer in pantheism which may explain why the inquisition merely imprisoned Galileo but executed Bruno.

to discover. Not only has Galileo's scientific authority been stripped of him, but also his academic integrity, and his intellectual capacity.

It is worth turning, briefly, at this point to *Pseudo Martyr*. This work pre-dates *Ignatius* (being published in 1610) and, in many of the aspects we have seen in relation to Donne's presentation of the astronomical authors, it acts as the forerunner in displaying Donne's understanding of scientific authorship. The preoccupation with the astronomers as 'authors', and the general interest Donne displays in authorship at this point, is clear in the dedicatory epistles to both the King and to the reader. It is the influence of James's 'bookes' that 'drawen up, and exhaled... these discourses'³⁶⁷ rather than James's personality, position as King, or direct command. We are also informed that though other authors have a direct influence upon Donne he does 'not alwayes precisely and superstitiously binde my selfe to the words of the authors'³⁶⁸ prefiguring the licence that Donne will later take in his treatment of the works of the astronomers and highlighting his own tendency to create an additional uncertainty in our understanding of other authors' texts *via* Donne's works through the admission of his taking liberties with regards to the integrity of his quotations. Furthermore, in addressing the reader Donne reveals a preoccupation with the difference between his own words, the words of others, and his narratorial voice within the work. Whilst the text may display 'oftentimes a change of the character'³⁶⁹ Donne instructs us that this is not always because he is quoting others but also as 'I have done it sometimes, onely to draw his [the reader's] eye, and understanding more intently upon that place, and to make deeper impressions thereof'.³⁷⁰ Therefore, Donne's interest in the actions, and usage, of other authors

³⁶⁷ J. Donne, *Pseudo Martyr*, ed. A. Raspa (London: McGill-Queen's University Press, 1993), p.3.

³⁶⁸ *Ibid*, p.10.

³⁶⁹ *Ibid*.

³⁷⁰ *Ibid*.

becomes clear. These claims from within *Pseudo-Martyr* act as authorial statements of Donne's perception of authors and authored knowledge which we have later seen him demonstrate in his treatment of the astronomical authors.

On the subject of 'knowledge' Donne makes further statements that have some bearing on the role of the astronomers as portrayed within *Ignatius*. We have seen how the misunderstandings of Donne's narrator aim to undermine the role of the astronomers' works and we have seen how the works themselves are drawn into question by Donne's authorial voice. However, whilst in his satire Donne may playfully create a link between Galileo's actions and the production of new Hells, within *Pseudo-Martyr* Donne seems to give a far more honest appraisal of his beliefs. Donne states that 'no ignorance excuses us if it be of a thing which wee ought to know, and may attaine to'.³⁷¹ He determines that if something is knowable it is right that we should know it. This vindicates the actions of the astronomers whom he later would mock in *Ignatius* and does so in a manner which can be considered far closer to Donne's actual beliefs than the treatment of knowledge that *Ignatius* presents. The narrative voice of *Ignatius* which presents this linkage of Galileo and sin is intentionally flawed and its statement of astronomical discovery as dangerous can be considered a further narratorial misunderstanding given that the narratorial voice of *Pseudo-Martyr* is not intended to have satirical motives or intellectual failings. Whilst neither can be deemed an accurate portrayal of Donne's personal thoughts (given that he is so keenly aware at this point in his career of the necessity to have a distinction between the author and the narrative voice) it would seem as though *Pseudo-Martyr* presents us with a more reliable version of Donne's understanding.

Therefore, whilst *Pseudo-Martyr* says relatively little about Donne's treatment of astronomical issues when taken in isolation, when read alongside the satirical commentary

³⁷¹ Ibid, p.173.

Donne offers in *Ignatius* (which is possible when viewing his works chronologically) it still holds some relevance to this thesis. In particular, *Pseudo-Martyr* can be seen to foreshadow the issues Donne would later explore within *Ignatius*. Indeed, the prevalence within his work of openly expressed debates over authorship and knowledge gives additional credence to the subtler debate that Donne presents within *Ignatius*. *Pseudo-Martyr* offers us the claims and opinions that Donne would soon after portray imaginatively within *Ignatius*.

‘Then Man is a World’ in Donne’s Later Works and Conclusions.

As the chapter on ‘Anatomical and Medicinal Science in Donne’s Works’ has shown, and as the latest references to the ‘new world’ in Donne’s work have suggested, Donne had a great propensity for inverting the scope of scientific knowledge with which he came into contact. With his understanding of anatomy, Donne took a study of the internal and projected outwards to create an external ‘landscape’ based upon the interior of the human body. When studying astronomy, or geography, Donne philosophically manipulates the purpose of these studies of vast external expanses so that he might better understand the internal workings of the self. Whilst the passages of Donne describing his medicinal ailments as if they were the workings of natural disasters within his *Devotions upon Emergent Occasions* have been discussed elsewhere in this thesis (p.49), it is helpful to discuss two final instances of Donne comparing his body to a world. Having explored the terrestrial possibilities of the metaphor of his body as a globe, Donne progresses to discuss the extra-terrestrial possibilities. Donne discusses how:

The *Heavens* are not the less constant, because they move continually, because they move continually one and the same way. The *Earth* is not the more constant, because it lyes stil continually, because continually it changes, and melts in al parts thereof.³⁷²

³⁷² *Devotions*, p.11.

And there is a great significance in the manner by which Donne takes a retrograde stance over astronomical knowledge in this passage. By suggesting that the Earth 'lyes stil' Donne is clearly exploiting the Ptolemaic model of the universe, contrary to the advances that Copernicus, Kepler, and Galileo made and, furthermore, ignorant of the knowledge that Donne himself displayed in *Ignatius His Conclave* as well as his later poetry and sermons. It is unsurprising that Donne should use Ptolemaic theory, given its Church acceptance, in a work that is so heavily concerned with religiously justified self-flagellation. Not only is Donne promoting the 'pious' scientific understanding but he is also demonstrating an attempt to cleanse himself of the impious curiosity of modern science through his denial of its existence.

Aside from this purging, Donne is demonstrating a further facet of his handling of knowledge. When inverting the intention of anatomical knowledge Donne managed to make the frail human body into something grander than it truly is. He expanded the self so as it could encompass the known world. In then expanding his metaphor, so that the human-globe is considered in the vastness of space, he encounters the same issue that originally caused him to compare the body to a globe. The Earth, if we accept the teaching of modern astronomy, is as insignificant to the universe as an individual is within the context of the globe. Thus, to overcome this Donne uses the Ptolemaic model, one which implies the primacy of the Earth, so that he might once more aggrandise the role of the self within the context of vastness. In doing so, Donne demonstrates a key fear that is brought about by the discovery of new knowledge. When new knowledge is discovered it replaces the old understanding and raises new questions that must be answered. These new questions in turn bring about uncertainty. The advances that the astronomers' promoted through their publications can be seen to cause Donne a great difficulty as suggesting the true vastness of the universe highlights the insignificance of mankind, and the individual, within that. Given that Donne's violent, and

temperamental, relationship with God seems to be based upon his trying to understand the role of himself in relation to a vast and superior being then to be presented with the possibility that he may have to justify himself to the vastness of the galaxy is a battle he is unwilling to enter in to. In a religiously minded work such as *Devotions* Donne ignores modern science since it raises philosophical questions that trouble him greatly.

Whilst on many occasions in the writing of this period 'newness' is associated with novelty Donne does not adhere to this belief. For Donne 'newness', particularly new knowledge, may have the excitement and intrigue of a novelty but it does not have the same superficiality. Rather new knowledge is a powerful entity. Newness, in Donne's treatment of geographical and astronomical matters, is a destabilising force which removes older knowledge's authority and does not always replace it with new understanding. It is notable that in Donne's later writings his awareness of new knowledge is teemed with an awareness of the incompleteness of human knowledge. Whilst his earlier work found excitement in new authorities, and the excitement of new learning caused him to write passionately, demonstrating his new found understanding, in his later work there is still excitement but also a sense of trepidation. This may reflect upon Donne's maturity as a man; equally in his very late writings it may reflect the instability he felt with regards to his own life and deteriorating health. Despite this increased trepidation, however, over the destabilising and incomplete nature of new knowledge, Donne's excitement seems to remain since the incompleteness of knowledge allows space for artistic interpretation and imaginative expansion of ideas. Whilst the breaking of old authorities and establishment of new ones was key to Donne's understanding of the manner by which new knowledge acts to destabilise human learning, as a young man in his later work it is the potential for varied and creative thought that excites him most. Donne becomes far more troubled, from a religious and moral standpoint, by new knowledge as his career progresses and this potentially demonstrates that Donne's

understanding of the rebellious, and anarchic, nature of new knowledge was still present in him. However, this takes a secondary position in his thinking behind the potential he sees within new knowledge for his own creation and manipulation. New (particularly scientific) knowledge, by the end of Donne's career, is both troubling (since it questions authority and he has devoted himself to an unquestionable authority in his Church) and yet still holds an excitement. This excitement is seemingly born of an acceptance that he will never be omniscient. Whilst as a young man new learning tends to suggest the potential for further knowledge to be garnered, with an ultimate end of total understanding, by the end of Donne's life new knowledge suggests an ever incomplete image of human understanding. Rather than this incompleteness being a draw-back, however, it is from this incompleteness that Donne thrives. With a small amount of knowledge he is capable of a far greater amount of creative thought than he could have been if given a more complete understanding of the world around him.

Chapter Five: Astronomy and Knowledge in Milton's Works.

Within Eden, Adam and Eve fell because they ate of the tree of knowledge of good and evil.³⁷³ This was the first instance of 'man's disobedience' (The Argument Book I) and the nature of this act, which may be viewed as motivated by a pursuit of knowledge, forms the basis for this chapter. In particular, the chapter will focus upon that knowledge which Raphael bars Adam from in his order, 'Solicit not thy thoughts with matters hid, Leave them to God above, him serve and fear' (VIII.167-8), namely the knowledge of astronomy.

This chapter aims firstly to contextualise Milton's life in relation to the greatest astronomical achievements and discoveries of the era, establishing his interest in the subject, and the manner by which he came to learn and discover this knowledge for himself. I shall next turn to the method by which Milton's interest in astronomy permeates his shorter poetry, showing how his understanding grows as time passes, and how his use of astronomy becomes bolder. This leads to a discussion of the relationship that Milton perceived between the various knowledges of the arts and of science, the importance of each study, and the manner by which a study of one can impact upon the other. I shall aim to use this review of astronomy in Milton's shorter poetry, and his personal understanding of the nature of scientific knowledge, and its relation to other branches of knowledge to establish exactly which portions of astronomy Milton deemed worthy of inclusion into his poetry. With the nature of Milton's dominant astronomical images clarified I shall venture into the frequently discussed area of Milton and Galileo, examining Milton's use of the telescope and concluding with the question as to whether the pair ever personally met. I shall also seek to establish an accurate picture of the nature of the universe within *Paradise Lost* (via a brief description of the chief astronomical theories available to Milton), and then explore the use of the telescope

³⁷³ Genesis 2.15, in H. G. May and B. M. Metzger eds., *The New Oxford Annotated Bible with the Apocrypha* (New York: OUP, 1973).

as a tool for image transference. The chapter concludes by studying Milton's *Commonplace Book* further to understand Milton's personal perception of the nature of knowledge, before relating his personal opinions of truth and of falsehood back to specific passages of *Paradise Lost*. This chapter aims, therefore, comprehensively to discover the true significance of Milton's use of astronomy within his work, and how his use of astronomy relates to his personal conceptions of knowledge, understanding, and also his comprehension of truth and deceit. The chapter will draw these branches together, ultimately viewing Milton's understanding of how scientific (particularly astronomical) knowledge, with its curiosity and desperation for truth, best fits a poetic scheme. The chapter will explain how science and poetry may assist each other in the pursuit of truth and knowledge, and also demonstrate Milton's ability to promote truth, through knowledge, regardless of the area from which the knowledge nominally originates.

Milton's Interest in Astronomy Contextualised.

Marjorie Nicolson ably summarises Milton's birth in relation to the great astronomical discoveries of the age. She points out how 'Tycho Brahe's "new star" of 1572' may have 'startled his [Milton's] grandfather', how Kepler's "new star" was discovered in 1604 and the 'excitement over which his father must have remembered' and how Galileo's *Siderius Nuncius* was published in 1610, whilst Milton was still only an 'infant'. Nicolson concludes from this that Milton had 'no such opportunity as John Donne to realise at first hand the excitement caused by these discoveries'.³⁷⁴ The 'first hand' excitement may have passed Milton by; however, this does not remove a level of excitement from Milton over these

³⁷⁴ M. Nicolson, 'Milton and the Telescope', *ELH*, 2:1 (April, 1935), 1-32, p.1.

discoveries, particularly the level of excitement that can be drawn from personal rediscovery of this knowledge.

Milton's astronomical education (and as such his personal discovery of astronomical thought) appears to have begun as an undergraduate at Cambridge University. His time at St. Paul's school would have introduced him to Sallust, Virgil, Cicero, Martial, Theocritus, Hesiod, Horace, Homer, Isocrates, Persius, Juvenal, Dionysius of Halicarnassus, possibly Demosthenes, and, according to Gordon Campbell and Thomas Corns, Aratus was used for scientific instruction.³⁷⁵ This totally bypasses Aristotle, and Ptolemy, the earliest significant astronomical writers, and it is not until his instruction in rhetoric, logic, and philosophy under William Chappell at Christ's College Cambridge³⁷⁶ that Milton would have had access to this material. The excitement of learning about astronomy is clear when we consider that Milton was writing poetry that reflected upon this knowledge (gained shortly after his entry to university in 1625) as early as 1626.

The sufficiency, or otherwise, of Milton's astronomical education whilst at Cambridge is best represented by William Costello's study *The Scholastic Curriculum at Early-Seventeenth Century Cambridge*. Costello notes how astronomy would have formed a part of the mathematical disciplines taught (alongside arithmetic, geometry, music, and optics).³⁷⁷ The fact that astronomy was merely a subdivision of the greater subject,

³⁷⁵ G. Campbell and T. Corns, *John Milton: Life, Work, and Thought* (Oxford: OUP, 2008), p.21. It is worth noting here that Aratus is no longer considered a mathematical or scientific figure, rather he is deemed a didactic poet with a passing interest in the science of his day. Thus, the difference between Milton and Donne's early interactions with astronomy could not have been greater. Donne accessed scientific materials rapidly after they were written, and these works (notably Kepler's *De Stella Nova* and Galileo's *Siderius Nuncius*) were written at a point in Donne's life where he was already a mature individual and writer. Milton, by comparison, had access to out-dated classical understandings of astronomy, and unsurprisingly whilst he – like Donne – was quick to incorporate astronomy into his writing, Milton's references were significantly more archaic and outmoded.

³⁷⁶ *Ibid*, p.30.

³⁷⁷ Costello, *The Scholastic Curriculum*, p.38. It is prudent to note how Costello defines this as a primarily 'medieval quarivium', which might hint at why the scientific materials Milton primarily interacted with were somewhat outdated. The interest in optics is also suggestive of how Milton's interest would evolve to become focused upon Galileo and his telescope.

mathematics, and, in the period prior to Kepler, still a separate subject from physics is in many ways suggestive of Milton's decision to include aspects of the science – when it was deemed artistically prudent – within his works. Astronomy did not play a significant enough role in his formal education ever to draw the subject area into becoming a distinct genre of knowledge that would be either incompatible, or inapplicable, to other areas within his intellectual scope.

The astronomical references of Milton's earliest poetry, written whilst still a student, are, understandably, a somewhat immature reflection of the subject. 'In Obitum Praesulis Eliensis' demonstrates astronomical knowledge, since 'Bootis'(l.51), 'Scorpionis' (l.53) and 'Orion' (l.54) are all mentioned in the order recognised by the star catalogues of Ptolemy³⁷⁸ and Copernicus.³⁷⁹ However, it also shows Milton's classical knowledge to be far more developed than his astronomical knowledge. Milton's references to how the various constellations 'did not frighten me' (l.51) alludes to Phaëton's fear, as described by Ovid,³⁸⁰ his later reference to the 'tri-form goddess' (ll.56-7) again shows a classical knowledge, this time of Hecate and her three names (Cynthia in heaven, Diana on Earth, and Proserpina in hell) and his reference to 'her dragon team' (l.58) further shows Milton's interest in displaying classical knowledge, primarily of Ovid. That Milton needs to add density and complexity to his astronomical images by supplementing his scientific knowledge with mythology is clear. This also demonstrates the essential nature of Milton's earliest interest in astronomy. Milton is an enthusiastic amateur in his dealings with astronomy, more comfortable and indeed more interested in the artistic and imaginative side of the study of the stars, than in the rigorously mathematical or empirical side.

³⁷⁸ Ptolemy, *Almagest*, trans. G.J. Toomer (London: Duckworth, 1984), pp.346, 372, 383.

³⁷⁹ Copernicus, *On the Revolutions of the Heavenly Bodies*, trans. A.M. Duncan (London: David and Charles, 1976), pp.109, 124, 129.

³⁸⁰ Ovid, *Metamorphoses I-IV*, trans. D.E. Hill (Warminster: Aris and Phillips, 1985), II.178.

Milton's enthusiasm for astronomy, and his lack of awareness of the subject's complexity, is again apparent in his descriptions of the flight 'past the blazing globe of the sun' (l.55), 'past the wandering planets' (l.59) and 'through the expanses of the Milky Way'. The vagueness of Milton's descriptions renders linking his understanding with any of the major astronomical theories near impossible.³⁸¹ But since the path he describes does not fully appreciate the enormity of space (because, despite his reference to the 'expanses' of our galaxy, his path is impossible if the true distance between Earth and the stars is appreciated) then it seems possible to disregard the advances of Copernicus and Galileo, as their work and planetary systems were reliant upon the true enormity of space, beyond anything imagined by the ancient authors.³⁸² It would seem, perhaps, that this poem is an elusive place to begin to understand Milton's excitement at astronomy during this early period, since the poem shows only the vaguest of knowledge and a much fuller excitement in the imaginative and image creating potential of astronomy rather than in its science. However, this poem acts as a significant forerunner to one of Milton's greatest astronomical explorations.

Satan's flight to Earth from the heavens (III.555-740) has clear resonances with the journey through the cosmos of 'In Obitum Praesulis Eliensis'. In *Paradise Lost* Satan has already left his 'loathsome prison' (l.46) and moved 'to the stars' (l.48) as the character of 'In Obitum' is now doing. Both journeys take the traveller past constellations, in the case of Satan past the 'eastern point of Libra', both travellers act as Satan when 'thither his course he bends' (III.573) past the Sun, and importantly both have a level of vagueness about the journey. However, Milton's astronomical vagueness has developed by the time of *Paradise*

³⁸¹ The vagueness is also a further indication of how Milton's astronomical education had (at this point in time) been primarily an outmoded and archaic one. It seems likely that a major reason for the serious consideration which he gave the theories of Copernicus and Galileo in his later works (despite the significant amount of time between their first publications and Milton's interaction with them) may in part be due to the period in his life where 'pre-scientific' thought amounted for his scientific education.

³⁸² P.M. Rattansi, 'The Scientific Background', in C.A. Patrides and R.B. Waddington eds, *The Age of Milton: Backgrounds to Seventeenth Century Literature* (Manchester: Manchester University Press, 1980), 197-240, p.198.

Lost to a point where he can acknowledge that the exact nature of the flight whether ‘by centre, or eccentric, [is] hard to tell’ (III.575).³⁸³ Milton, by this time, had developed and furthered his understanding to a point where he finds it possible to use the technical terminology of astronomy, without bogging his poetic interest down in mathematical tedium. Milton’s astronomical interest, and indeed excitement, is clear then, as he maintains and develops his interest and knowledge throughout the forty years between ‘In Obitum’ and *Paradise Lost*. Clearly, despite his birth being too late to meet the initial hype over astronomical discoveries and controversies, ‘Milton was seriously engaged with the scientific... ferment of his time’,³⁸⁴ as this life-long development of an astronomical and poetic image shows. The introduction of scientific terminology to Milton’s poetic responses to astronomy is also indicative of the progression of Milton’s knowledge.

It is perhaps unsurprising that Milton’s interest in the science of the stars, and his determined self-development of his private knowledge, continues throughout his life when we consider his opinion of education and knowledge as displayed in ‘Of Education’.³⁸⁵ Milton claims that the education of all men should start ‘with the chief and necessary rules of some good grammar’,³⁸⁶ expressing a clear interest in the development of the individual’s knowledge of the Latin language, but feels also that ‘at the same time, some other hour of the day, might be taught them the rules of arithmetick, and soon after the elements of geometry’.³⁸⁷ Thus, Milton clearly expresses the importance of languages and Mathematics to

³⁸³ Given how highly defined Milton’s cosmos is, as has been demonstrated by Sarkar, *Cosmos and Character in Paradise Lost*, the vagueness of Satan’s flight is particularly significant as it adds a sense of the unknown to Satan’s portrayal. In essence, the deceptive flight of Satan mirrors the deceit inherent in Satan’s character.

³⁸⁴ J. Gillies, ‘Space and Place in *Paradise Lost*’, *ELH*, 74:1 (Spring, 2007), 27-57, p.27.

³⁸⁵ All references to ‘Of Education’ within this thesis are taken from, J. Milton, ‘Of Education’, in *The Complete Prose Works of John Milton*, vol.2, ed. Ernest Sirluck (New Haven: Yale University Press, 1959), 357-416.

³⁸⁶ *Ibid*, p.382.

³⁸⁷ *Ibid*, p.386.

all educated people as being of near equal significance to an individual's knowledge. When we consider that he also promotes the learning of 'use of the globes'³⁸⁸ (both terrestrial and celestial), expresses a desire to see youths 'read any compendious method of naturall philosophy' (l.126) and also his belief that the primary mathematical skills are '*Arithmetic, Geometry, Astronomy, and Geography*',³⁸⁹ it becomes clear that Milton would have every educated man equipped with the necessary skills to study the stars. Astronomers of Milton's age were termed 'mathematicians', and indeed they were not separated from those studying other branches of mathematics at universities, as a modern institution would. Geometry and arithmetic are the primary tools of Ptolemy's *Almagest*, in which vast diagrammatic explanations of the movements of the planets can be found. Thus, Milton is keenly interested in the pursuit of knowledge, and does not segregate his study as a modern academic might. Milton collates and collects knowledge, believing that all educated people should, drawing on this knowledge in his chosen tasks.

Despite Milton's promotion of a rounded education, including a keen interest and excitement in the study of astronomy, the relevance of the subject to Milton's poetry may be questioned. The idealism of a tract on education, defining the importance of all areas of study to the development of the individual, may seem somewhat naive when the practicalities of life are considered. Yet Milton saw no difficulty in drawing upon disparate knowledge and using it in a concerted attempt to improve the standards of his chosen artistic medium. Indeed, the modern sensibility, which divides arts, sciences and divinity, seems completely disregarded by Milton's mind. In the second book of 'Of Reformation'³⁹⁰ Milton describes

³⁸⁸ Ibid, p.389.

³⁸⁹ Ibid, p.391.

³⁹⁰ All references to 'Of Reformation' within this thesis are taken from, J. Milton, 'Of Reformation', ed. Don M. Wolfe and William Alfred in *The Complete Prose Works of John Milton*, vol.1, ed. Don M. Wolfe (New Haven: Yale University Press, 1953), 514-617.

the means by which to ‘govern a Nation piously, and justly’³⁹¹ and in doing so describes the pitfalls of such a pursuit as:

there is no art that hath bin more canker’d in her principles, more soyl’d, and slubber’d with aphorisming pedantry then the art of policie; and that most, where a man would thinke should least be, in Christian Common-wealths.³⁹²

And despite his opinion that governance is an ‘art’, this does not stop him from also defining political theory as a ‘Science’ of ‘greatest importance to the life of man’.³⁹³ Therefore, Milton feels that subjects need not fall into being solely an art or a science. If any definition can be drawn, it would seem that theorising falls more into the area of science, and more emotive aspects such as ‘principles’ come under the title of art. As both aspects, theory and principles, are crucial to the overall aim of governing, Milton seems to imply that any major task should and indeed does contain areas of art and areas of science. Milton puts into practical use his belief that an all-round education is crucial to fulfilment of a life, as he sees no need to keep the two areas of science and art apart, rather feeling that they are naturally symbiotic in their relationship with each other. Milton’s belief that a knowledge of science and arts is crucial to all seems to be drawn from his understanding of the world, man needs science and art for life, as science and art are in every aspect of life.

Whilst it is clear that Milton sees the areas of art and science as symbiotic in the educated areas of life, the exact nature of the relationship is still to be defined. In his

*Considerations Touching the Likeliest Means*³⁹⁴ Milton states that:

if men be not all thir life time under a teacher to learn Logic, natural Philosophie, Ethics or Mathematics, which are more difficult, that certainly it is not necessarie to

³⁹¹ Ibid, p.571.

³⁹² Ibid.

³⁹³ Ibid.

³⁹⁴ All references to *Considerations Touching the Likeliest Means* within this thesis are taken from, J. Milton, ‘Considerations Touching the Likeliest Means to Remove Hirelings out of the Church’, ed. William B. Hunter, Jr., in *The Complete Prose Works of John Milton*, vol.7, Revised Edition, ed. Robert W. Ayers (New Haven and London: Yale University Press, 1980), 274-321.

the attainment of Christian knowledge that men should sit all thir life long at the feet of a pulpited divine;³⁹⁵

Clearly then, Milton is defining science as 'more difficult' (l.494) than theology. Milton's educational beliefs, understandings of knowledge, and definition of the relationship between science and other knowledges all guide him into using a knowledge of science in his poetry. Milton sees no need, has no desire, and most importantly does not even make a definition between science and art that is strong enough to draw the two varied knowledges apart from each other. Milton does not make a decision to incorporate science in his art, it is natural for him to do so. Equally, Milton does not incorporate all areas of science into his poetry, as some are simply not poetic, and this is something that we shall come back to later (see p.235).

It is clear that Milton has a concerted interest in science and astronomy, and that he does not make divisions between his knowledge of art and science, whilst still accepting that each branch of knowledge has features unique to itself. The specific and particular nature of Milton's tracts on how to educate also assert Milton's belief in an inclusive education, whereby the various strands may be brought together to aid each other. This humanist pattern of thought demonstrates Milton's sincere belief in an unrestricted study, whereby interdisciplinary studies were likely to prove essential to the development of an individual. Milton can be seen to have practiced this all-inclusive brand of education when representations of the Sun, an object that had been a focus of so many different scientists' work, in his poetry are explored, and the manner by which the images progress is analysed.

³⁹⁵ Ibid, p.302.

'Instrumentall' Science and *Paradise Lost*.

Milton's interest in science, scientific knowledge, and particularly astronomy mainly resides within the bounds of *Paradise Lost* and, therefore, it is here that it is prudent to begin a determination of exactly which branches of the practice of science Milton deemed suitable for placing within poetic verse and, indeed, which areas of science most attracted his interest. The passage from Milton's 'Of Education', discussed earlier to establish the validity of a study of science in Milton's poetry and emphasise the role that the sciences played within Milton's ideas of education, knowledge, and learning, also contains a definition that will be useful in establishing which parts of science are worthy of a place within poetry. When discussing mathematics Milton makes reference to 'instrumentall' science.³⁹⁶ By this Milton means what today we would see as empirical sciences, those that can be measured by tools, apparatus, and devices so as to give clear data, which can be tabulated, and diagrammatically represented so as to allow analysis. I propose that this is the branch of science that Milton most readily turns to when aiming to position scientific knowledge within *Paradise Lost*. In book four, Milton presents:

Hung forth in heaven his [God's] golden scales, yet seen
Betwixt Astrea and the Scorpion sign,
Wherein all things created first he weighed, (IV.997-9)

and through this image we gain an insight into Milton's opinions on the nature of scientific knowledge. Clay Daniel has argued that this passage is an instance in which 'the celestial situation reflects the terrestrial one',³⁹⁷ with Libra separating the scorpion from the virgin as 'Gabriel, seconded by the divine scales, interposes between Satan and Eve'.³⁹⁸ However, his

³⁹⁶ 'Of Education', p.392.

³⁹⁷ C. Daniel, 'Astraea, the Golden Scales and the Scorpion: Milton's Heavenly Reflection of the Scene in Eden', *Milton Quarterly*, 20:3 (October, 1986), 92-98, p.92.

³⁹⁸ Ibid.

allegorical reading ignores the important scientific allusions that Milton is utilising. The scales, in this case the constellation of Libra, sit between Scorpio, ‘the Scorpion sign’, and Virgo, the virgin (Astrea too is associated with virginity, and is more appropriate to Milton’s image than a straightforward mention of Virgo owing to the connotations of justice that Astrea also embodies), in the star catalogues of both Ptolemy and Copernicus³⁹⁹ and as such Milton’s image has astronomical credibility. What Milton does do here, however, is ignore the unnamed stars that Copernicus’s catalogue refers to on either side of Libra⁴⁰⁰ presumably as they would only act to dull what is a well wrought poetic image.⁴⁰¹

The perspective Milton presents of this image is also intriguing. Milton mentions that the scales hang in heaven and describes them as ‘yet seen’. This subtly implies that the viewer of the scene is not in the heavens and, therefore, that the observation of the stars has been made from Earth. This, in turn, suggests perhaps the use of a telescope, though these stars are visible to the naked eye, but it definitely implies an observation of an area of interest to science, without defining the nature of the viewer as either expert or layman. The scales mentioned, as well as their obvious role as scales associated with justice, have a delicate suggestion of ‘instrumental science’ about them also. God is supposed to have taken the objects of the universe and weighed them, potentially not merely in the justice sense, but also in the sense of a scientist recording data. Therefore, the image of justice, framed with classical references, takes on a new understanding. There are suggestions of the potential of astronomical observation, with or without telescopes, and the potential knowledge of the heavens that can be attained by such a study. The nature of the science Milton is excited by is

³⁹⁹ Ptolemy pp.369-72: Copernicus pp.122-4.

⁴⁰⁰ Ibid, p.123.

⁴⁰¹ Alternatively, Milton’s vagueness may be the product of the inaccessibility of astronomical texts to him. Tycho Brahe, a famed astronomer, found the ‘acquisition of texts particularly difficult’ according to A. Mosely, *Bearing the Heavens* (Cambridge: CUP, 2007), pp.166-7. So perhaps a similar; or greater level of difficulty could be envisioned for Milton in acquiring texts.

also expounded in this section. Not only does he highlight the use of scientific tools, both the scales and possibly the telescope, and therefore promotes the idea of ‘instrumentall’ science as being the basis for his personal interest, but the things Milton chooses to ignore further emphasise the nature of the scientific knowledge he feels is capable of contributing to his epic poem. Milton does not mention the additional unnamed stars that Copernicus chooses to, as they are un-poetic. The details would spoil a beautifully designed passage; this type of accuracy is unnecessary in a medium designed to inspire the imagination. Milton also chooses not to go further into describing the weighing of the celestial and terrestrial forms. Such detail would again prove unsuitable for placing within poetry.

Therefore, it would appear that Milton decided to place images of scientific knowledge within his work, rather than hard empirical science. Milton focuses upon the ‘instrumentall’, as instruments and tools have imaginative potential, a potential that figures and recorded data simply do not possess. Furthermore, by deciding to leave out the unallocated stars about Libra, Milton also actively chooses to use an older scientific knowledge, as it best suits his needs. Milton is a poet, not a scientist, and his work does not need to have a perfectly defined, logical scientific frame. Milton chooses to use the older science as it fits better with the mythology he wishes to include. His science, is not truly science, but rather a collection of images, myths, and suggestions that in their own way are parts of science, but are not truly empirical science. Milton focuses upon the ‘instrumentall’ as it is the tool of science, with its potential for knowledge acquisition and discovery, and the associated dangers of such a pursuit, that has the greatest poetic potential, whilst the findings of such tools are often bland by comparison. Milton’s interest in the tools with which scientific discoveries can be made is clear from his image of the scales. It would, however, be remiss to ignore the most significant scientific tool within Milton’s work- namely, the telescope.

Milton, Galileo, and the Telescope.

Much has been written aiming to define Milton's use of the telescope throughout his poetry, and his opinion of, and relationship with, Galileo. J. M. Walker points out that these discussions are most often 'located within either the context of Milton's cosmology (was he presenting a post-Copernican universe in *Paradise Lost* or covering his cosmographical tracks with Ptolemaic and Platonic shadowings?) or the context of Milton's travels (did he really meet Galileo or just the Tuscan's Florentine students?)'.⁴⁰² I shall aim to answer both of these questions, starting with the second point, and shall furthermore explore the precise nature of the telescope that Milton portrays within his poetry, demonstrating its prevalence as a tool for the transmission of knowledge within Milton's works.

On the question of whether or not Milton actually met Galileo much has been written, but this question's roots are to be primarily found in the work of S.B. Liljegren. He argues that Milton's writings on his Italian journeys are filled with a 'desire to impress his importance on the public',⁴⁰³ and based upon his personal prejudices elaborates Milton's reference to the meeting with Galileo so as to make it appear ridiculous. Milton merely remarks 'I found and visited the famous Galileo grown old, a prisoner of the Inquisition',⁴⁰⁴ but Liljegren referencing Masson⁴⁰⁵ turns this into 'an excursion' followed by a 'cordial reception' and then further into 'a stroll, perhaps, under the guidance of the disciples in attendance, to the adjacent observatory, to see and handle the telescopes' followed by a return

⁴⁰² J.M. Walker, 'Milton and Galileo: The Art of Intellectual Canonization', *Milton Studies*, 25 (1989), 109-24, 109.

⁴⁰³ S. B. Liljegren, *Studies in Milton*, (Lund: Aktiebolaget Skånska Centraltryckkrikt, 1918), p.13.

⁴⁰⁴ J. Milton, *Areopagitica and Of Education*, ed. M. Davis (London: Macmillan and Co, 1963), p.44.

⁴⁰⁵ Masson, *Life of Milton*, pp.736-7.

for 'fine wines produced in welcome'.⁴⁰⁶ Liljegren, is correct in pointing out a fellow critic's over-indulgence in fancy. However, by quoting such a long passage from Masson's work, and revelling in its eccentricities, Liljegren would have us believe that Milton's meeting with Galileo never occurred as those working on the notion the pair met have embellished the meeting, making it akin to the meeting of two heads of state. To point out a flaw in another critic's methodology is acceptable, to use this flaw as evidence to contradict a primary source is not. Liljegren appears to have been writing against the fanciful nature he perceived in his fellow critics, and this, combined with the persona he creates for Milton, colours his reading so vividly that he finds it impossible for the meeting between Milton and Galileo to have occurred.⁴⁰⁷ Of course, Liljegren's methodology is as flawed as the methodology of those he attacks.⁴⁰⁸ He does not care greatly for the actual primary sources, merely for their handling, and, as previously stated, judging a source based upon how others have handled it, without interacting with the original source, is a fundamentally flawed approach and one that greatly discredits any conclusions based upon it. Therefore, it is clear that the argument against Milton meeting Galileo, despite occasionally falling into and back out of fashion with critics, is founded upon prejudices not evidence. Consequently, Milton probably did meet Galileo (if the primary source, not the secondary materials are believed) and whilst this meeting may not have had an immense effect upon Milton's works, it most definitely had some influence.⁴⁰⁹

⁴⁰⁶ Liljegren, *Studies in Milton*, p.17.

⁴⁰⁷ Neil Harris, 'Galileo as Symbol: The "Tuscan Artist" in *Paradise Lost*', *Annali dell'Istituto e Museo di Storia della Scienza di Firenze*, 10 (1985), 3-29, p.9, takes a similar position to myself with regards to Liljegren's work, concluding that there is 'no real reason not to believe Milton' when he claims to have met Galileo.

⁴⁰⁸ A further issue with Liljegren's objection is purely logical. If Milton were merely using this reference to Galileo to further his own self-image the question remains as to why he would emphasise Galileo's frailty by terming him to have 'grown old' and his impotence at being 'imprisoned'.

⁴⁰⁹ The stance I take on this point is supported further by G.F. Butler 'Milton's Meeting with Galileo: A Reconsideration', *Milton Quarterly*, 39:3 (2005), 132-137, which argues that whilst 'his meeting with the astronomer must remain conjecture' (p.137) even had Milton 'never mentioned Galileo in *Areopagitica* there would still have been ample reason to speculate that he had met the scientist.' (p.136).

The question of whether or not Milton was presenting a post-Copernican universe, or one that displays Ptolemaic shadowings, is a far more serious question that requires a far greater level of study. On the most simplistic of levels, *Paradise Lost* is vast. It is a lengthy poem, and its subject matter is enormous. When dealing with such enormity, understandably, arguments can be made for both a Ptolemaic and a Copernican universe, and in the case of *Paradise Lost* all of these arguments may seem to hold some level of truth.

In studying the precise nature of Milton's planetary system, first we must look to understanding the many planetary systems to which Milton, as a poet with a more than passing, but still amateur, interest in astronomy, would have had access. Too often the situation is simplified, into either geocentric or heliocentric models when the actual situation is far more complex. F.R. Johnson's work comments upon this fact and demonstrates multiple, lesser known astronomical layouts. Johnson demonstrates the theories of 'Leucippus and his more brilliant disciple Democritus'⁴¹⁰ as being one in which atomic theory is laid out, whereby the entire universe is created of tiny indivisible bodies known as atoms, and that planets form by the grouping of these atoms. Ultimately this theory led to a belief that there could be an 'infinite'⁴¹¹ number of universes similar to our own. Johnson also points to Pythagorus as discovering the 'spherical shape of the Earth'⁴¹² and that the moon shines with the reflected light of the Sun.⁴¹³ Johnson's extensive studies move next to the 'Philolaic system',⁴¹⁴ in which a central fire is at the universe's centre, about which the Sun and planets orbited, he discusses the system of Heraclides in which the 'sun, not the Earth

⁴¹⁰ F.R. Johnson, *Astronomical Thought in Renaissance England* (Baltimore: Johns Hopkins Press, 1937), p.27.

⁴¹¹ Ibid.

⁴¹² Ibid, p.28.

⁴¹³ Ibid.

⁴¹⁴ Ibid, p.29.

was the centre of the orbits of Venus and Mercury⁴¹⁵ and finally to Eudoxus and his successor Calippus as deriving a massively complex mathematical system to describe the planet's motions, very similar, though more convoluted, than the Ptolemaic system. Johnson demonstrates that 'by 1543, the date of publication of Copernicus's *De Revolutionibus* every important work of ancient astronomy was available to scholars'⁴¹⁶ (with the exception of Archimedes' work, published the following year). What Johnson does not demonstrate however, is the varied levels of importance that each of these texts held. Indeed, the main importance seems to have been that they were the first points at which certain principles, proved by the later Renaissance astronomers, were first aired, albeit with reasoning that today would be considered unscientific. The notion of the central fire confused many Renaissance thinkers, making Copernicus's heliocentric system seem like a revival or defence of the Philolaic system,⁴¹⁷ though it seems that Copernicus himself understood the differences. Pythagorus's discoveries were accepted and incorporated into most other major systems, and Heraclides' ideas (though not widely referred to or even widely accepted by Renaissance science) do show the embryonic starts to systems in which the Earth is not a dominant celestial body about which the whole universe rotates. However, despite these texts giving a first airing to many ideas that would later become scientifically proven, these texts represent the outer fringes of scientific thought, the mainstream of which (prior to Milton's birth) tends to be found in the theories of Aristotle, Ptolemy, Tycho Brahe, Copernicus, and the discoveries in support of the Copernican system made by Galileo.

Aristotle and Ptolemy's systems (broadly speaking the ancient astronomy) contain many similarities. Aristotle first defines astronomy as an 'aspect of natural science', before

⁴¹⁵ Ibid, p.32.

⁴¹⁶ Ibid, p.64

⁴¹⁷ Ibid, p.29.

deciding that the Earth ‘does not move’⁴¹⁸ and is ‘constrained by the centre of the universe’.⁴¹⁹ He ultimately decides that the universe ‘must be stable’⁴²⁰ and unchanging, and derives all of his thoughts from observations made with the naked eye, from drawing analogies with events and features apparent upon the Earth and upon logical reasoning. The Ptolemaic advances primarily concern themselves with the geometrical proving of the Aristotelian theory. Ptolemy’s work is a far more extensive volume, containing definitions of technical terminology, a star catalogue, and vast explanatory passages which, in a massively confident tone, deride as ‘absurd hypothesis’⁴²¹ any thought that rivals his own. He decides, as Pythagorus had previously, that the Earth is ‘sensibly spherical’.⁴²² Ptolemy also argues, as Aristotle had, that the Earth was at ‘the middle of the heavens’⁴²³ and was without motion. Ptolemy then orders the planets from the universe’s circumference to its centre (Saturn, Jupiter, Mars, Sun, Venus, Mercury, Earth), and admits difficulties in describing the orbits of Venus and Mercury (primarily because of his faulty ordering of the planets, though he never realises, or at least admits to this) and endeavours mathematically and geometrically to solve this issue. Indeed, it is only when describing the orbits of Venus and Mercury that Ptolemy ever portrays an uncertain tone in his work, and as such, his nervousness about this aspect of his understanding is apparent.

Aristotle and Ptolemy are the two most crucial early writers to have influence upon the works of Milton, though as we have seen from Nicolson’s work, Milton’s birth is at a point where the powerful influence of the renaissance astronomers is flourishing. The greatest

⁴¹⁸ Aristotle, *Physics*, trans. R. Waterfield (Oxford: Oxford World Classics, 1999), p.70.

⁴¹⁹ Ibid.

⁴²⁰ Ibid, p.211.

⁴²¹ Ptolemy, p.39.

⁴²² Ibid, p.40.

⁴²³ Ibid, p.41.

exponent of astronomical renaissance thought, namely Copernicus, laid his ideas down on paper in *De Revolutionibus Orbium Coelestium* (first published in 1543). Copernicus's prose is far more timid than that of Ptolemy. Copernicus addresses his preface to 'His Holiness Pope Paul III'⁴²⁴ expressing a fear that when people read his ideas they will 'clamour for me to be hooted off the stage',⁴²⁵ he speaks of how he 'long hesitated and even resisted'⁴²⁶ declaring his findings, only moving forward when supported by Nicholas Schonberg, the cardinal of Capua, and Tiedemann Giese, bishop of Kulm.⁴²⁷ The understandable religious nervousness of Copernicus is clear, and this permeates into the work proper. Copernicus again maintains that the Earth, and universe are 'globe-shaped',⁴²⁸ and that the motions of the planets are 'circular'.⁴²⁹ When he finally broaches his discovery, namely the motions of the Earth and its non-central position amongst the stars, again trepidation is in his tone. This makes sense, as Ptolemy's work had taken on church acceptance, alongside Aristotle's, and Copernicus is technically blaspheming. Furthermore, it makes sense that Ptolemy and Aristotle do not display such nerves, as they are writing in an era in which astronomy does not have to compete with the all powerful teachings of the Catholic Church, with its many punishments associated with any action deemed heretical. Copernicus first broaches the subject by re-iterating what is commonly believed; 'that the Earth is at rest in the middle of

⁴²⁴ Copernicus, p.23.

⁴²⁵ Ibid.

⁴²⁶ Ibid.

⁴²⁷ The city of Capua lies just north of Naples, and Copernicus's interest in establishing the support of an Italian religious leader is significant. Kulm was at this point part of Prussia, though is now known as Chelmo in modern day Poland. The bishop, Tiedemann Giese was a humanist of local significance within Prussia. He was a known correspondent of Erasmus, who collaborated with Copernicus on political issues outside of the astronomical ones raised here.

⁴²⁸ Ibid, p.36.

⁴²⁹ Ibid, p.37.

the universe'⁴³⁰ before timidly offering that 'another motion should be supposed for the Earth'.⁴³¹ He then, having first flagged his intention to ascribe the Earth an orbit, after several pages of filler material, begins to describe his ordering of the planets. Maintaining as close a relationship with Ptolemaic tradition as possible, he again re-iterates what was thought to be known, and follows the same system of telescoping from the outermost planet to the centre of the universe. He describes Saturn, Jupiter and Mars at length, including information on the time required for each orbit, and at the point of describing Earth's ring hesitates. Rather than adopting his previous formula of announcing the planet, then its length of orbit, Copernicus alters the formula so as to hide somewhat his original thought. He mentions first the 'annual revolution'⁴³² before naming the Earth, and then quickly moving to a discussion of the moon (a discussion that involves talk of 'epicycles',⁴³³ the tool used by Ptolemy to make his geometric models of the universe mathematically accurate). Copernicus then completes his order of the planets, Venus and Mercury, before praising the decision of God to place the Sun at the universe's centre. Copernicus's work then includes a star catalogue, fuller than Ptolemy's but with only minor variations, and concludes by reiterating the discoveries he has unveiled throughout the work. I have described at length the manner in which Copernicus unveils his theory, since to the modern reader it is generally accepted fact. The shock and scandal the idea had the potential to cause in the mid-1500s cannot be over stressed. It was a religiously volatile idea, and this is key to the understanding of Milton's use of it in *Paradise Lost*.

⁴³⁰ Ibid, p.40.

⁴³¹ Ibid, p.41.

⁴³² Ibid, p.49.

⁴³³ Ibid, p.50.

The rival to Copernicus's system came in the form of Tycho Brahe's system. He formulated it around 1582 and 'rejected all previous systems, including the Copernican, and evolved his own, this being a mixture of the old and new'.⁴³⁴ Brahe's system can be broadly termed a geo-heliocentric system. Tycho placed the Earth at the universe's centre, having the Sun and moon revolve about it, but then had the remaining planets revolve about the Sun. This was a neat, although not entirely sufficient, way of solving the issue of Venus and Mercury's orbits, whilst maintaining the religious sensibility that the Earth should be predominant in the universe's ordering. Brahe himself acknowledged the failings of this system however, begging upon his death bed that his pupil, Kepler, should use his model, alongside Kepler's discovery of the elliptical nature of orbits, to form a new planetary system, remaining separate from the Copernican one.⁴³⁵ Whilst Kepler would no doubt have been touched by his former tutor's pleas, he remained a constant and vocal supporter of Copernicus's theory throughout his career.

Whilst these four astronomers provide the most powerful and influential systems upon which planetary understanding could be based, the influence of Galileo upon the course of renaissance astronomy should not be ignored. It has regularly been stated that he is the only seventeenth-century figure to be mentioned in *Paradise Lost*, and as such it would be highly remiss to ignore his astronomical discoveries from a summary of astronomical thought pertaining to Milton's works. Whilst some have credited Galileo with the telescope's invention this is a misnomer. 'Hans Lipperhey, a spectacle maker from the Dutch town of Middelburg'⁴³⁶ is the actual inventor, having presented a device to Count Maurice of Nassau

⁴³⁴ J.A. Gade, *The Life and Times of Tycho Brahe* (Princeton: Princeton University Press, 1947), p.93.

⁴³⁵ *Ibid*, p.94.

⁴³⁶ Galileo, *Siderius Nuncius*, trans. W.R. Shea (Massachusetts: Watson Publishing International, 2009), p.1.

that ‘made things far away appear as being near’⁴³⁷ in September of 1608. Galileo soon heard of the device, applied it to study of the heavens rather than terrestrial matters, and indeed improved the design. Galileo’s telescope therefore, entailed a tube ‘four Venetian feet in length with a concave eyepiece ground spherically to a radius of less than a finger’s breadth, and an objective lens ground to a radius of six feet.’⁴³⁸ It is testimony to Galileo’s interest in the device that his improvements, study, and publication of his findings should happen within eighteen months.⁴³⁹

Galileo’s style is almost as important as his findings to a reader such as Milton. How could Milton not have been enticed by work so concerted in its convictions as to proclaim ‘great indeed are the things that this small book offers’.⁴⁴⁰ Galileo goes on to pronounce the importance of ‘the instrument’,⁴⁴¹ and, unlike Copernicus, immediately sets about describing his discoveries. He begins with the fact ‘the moon’s surface is not smooth and polished but rough and uneven’,⁴⁴² progressing to the discovery that the Earth reflects light onto the moon, much the inverse of the Pythagorean discovery of moon-light.⁴⁴³ Galileo then proudly abolishes any notion of Aristotle’s continuous universe by describing how he has viewed ‘within the limits of one or two degrees, more than five hundred [new stars] scattered among the old stars’.⁴⁴⁴ Finally, Galileo discusses how he has discovered satellites about Jupiter⁴⁴⁵

⁴³⁷ Ibid.

⁴³⁸ Ibid, p.2. Four Venetian feet is roughly 140cm.

⁴³⁹ *Siderius Nuncius* was first published on the thirteenth of March 1610.

⁴⁴⁰ Ibid, p.55.

⁴⁴¹ Ibid.

⁴⁴² Ibid.

⁴⁴³ Ibid, p.69.

⁴⁴⁴ Ibid, p.71.

⁴⁴⁵ Ibid, p.92.

and that these formed ‘a particularly strong argument to remove the scruples of those who are willing to examine dispassionately the revolutions of the planets about the Sun in the Copernican system’,⁴⁴⁶ since one of the major criticisms had been the belief that the moon quite simply couldn’t keep itself in orbit about the Earth, were the Earth in motion. By finding other moons managing to keep in orbit around bodies that were accepted as moving this argument disintegrated.

Now that the astronomical backdrop to *Paradise Lost* has been fully established, a precise examination of the manner in which Milton uses and adopts this information can begin. Walker’s first question, namely ‘was he [Milton] presenting a post-Copernican universe in *Paradise Lost* or covering his cosmographical tracks with Ptolemaic and Platonic shadowings?’,⁴⁴⁷ is a question to which both of Walker’s rhetorically embedded answers could be seen as true at various points throughout the text of *Paradise Lost*. As early as the first book of *Paradise Lost* Milton can be seen to develop a joint Galilean and Copernican understanding of space. In the passage beginning ‘Through optic glass...’ (I.288-I.291) Milton introduces the figure of Galileo, by means of allusion to his telescope. More pertinently than this, he also references the Tuscan’s discoveries. Maura Brady has argued that ‘to descry’ (I.290) relates to Galileo’s notions of the moon’s surface,⁴⁴⁸ but focusing upon merely the infinitive is misleading. If the quotation is taken in full, ‘to descry new lands’ (I.290), then the reference seems more appropriate to Galileo’s discovery of the ‘new lands’ of Jupiter’s satellites. If we take the reference to be to Jupiter’s moons, not to the surface of Earth’s moon, the passage gains an air of defending Copernican theory. Galileo felt that Jupiter’s moons indicated that ‘we now have not only one planet revolving about another

⁴⁴⁶ Ibid.

⁴⁴⁷ Walker, ‘Milton and Galileo’, p.109.

⁴⁴⁸ M. Brady, ‘Galileo in Action: The “Telescope” in *Paradise Lost*’, *Milton Studies*, 44 (2005), 129-152, p.140.

one'⁴⁴⁹ and this, as we have previously seen, denounced a major criticism of the Copernican idea. Whilst the context of the quotation may give Brady's idea some weight, there can be no doubt that the fuller quotation has implications beyond Brady's viewpoint. The later reference to the 'spotty globe' (I.291) is far more clearly involved in Galileo's notions of the moon's fractiousness, and again indicates this passage to be describing a jointly Copernican and Galilean system for the stars.

Milton continues to show subtle interest in Galileo's newly discovered moons later in book one. By suggesting that 'space may produce new worlds' (I.650) Milton is showing a guarded reference again to the discoveries of Galileo and his telescope. If we take these 'new worlds' to be Galilean, then Milton's actions here denounce the Aristotelian system, to which Ptolemy's and indeed most ancient theories of the universe owe a debt. Clearly, if there are new worlds, then it is impossible that 'the universe must be continuous'⁴⁵⁰ as such changes are not permissible in the arguments of Aristotle's *Physics*. This line, therefore, mimics the actions of Galileo, the actions that led to his incarceration under house arrest by The Inquisition. As we have seen, it is likely that Milton met Galileo, whilst he was under this arrest, and here the fault of Galileo becomes the fault of Milton. Galileo's imprisonment was born of rival scholars, scholars versed in the Aristotelian understanding of the universe, self-interested defence of their knowledge. The Aristotelian academics denounced Galileo as blasphemous and heretical to the Dominican preachers that had already shown opposition to the new astronomy. The concerted preaching against the new astronomy that followed caused Galileo's strife, and here in an act of belated support for Galileo's cause, Milton defends Galileo by joining him in a stance against out-dated knowledge.

⁴⁴⁹ *Siderius Nuncius*, p.92.

⁴⁵⁰ Aristotle, p.211.

These references, so early in the poem, indicate only the start of Milton's interest in defending the Copernican and Galilean systems. By book three, Milton's notion of 'innumerable stars' (III.565) is a direct quotation of Galileo's idea that 'the galaxy is nothing else but a collection of innumerable stars'.⁴⁵¹ This passage goes further in describing how the 'golden sun', sits 'above them all' (III.571-2) as this links neatly to the Copernican phrasing of how 'In the middle of all is the seat of the sun'.⁴⁵² Indeed, the directness of the relationship between the Miltonic and scientific texts at this point is further demonstrated by the image of the 'all-cheering lamp' (III.581) when we consider how Copernicus in a show of piety announces:

Who in this most beautiful of temples would put this lamp in any other or better place than the one from which it can illuminate everything at the same time.

Evidently, Copernicus is here praising God at the point where he most decries what has been previously taught as biblical truth with the intention and desire of self-preservation in mind. However, the linguistic similarities between his and Milton's works are undeniable. To describe the Sun, in the centre of the universe, as being lamp-like could conceivably happen by accident, but to do this whilst simultaneously emphasising how the position of the lamp allows for it to shine on all things makes the connection between these passages definite. The directness of the links between Milton's words and the texts he draws his knowledge from continues further as this book progresses. Milton's reference to 'stars Numberless' (III.718-9) again links neatly with Galileo's innumerable stars, but of more interest is the supposition that the Earth's side glows 'With light from hence, though but reflected' (III.723). The reciprocity of this image is crucial, the stars light the Earth, but here the Earth returns some of the glow through reflection. This image mirrors Galileo's notion that 'Earth

⁴⁵¹ *Siderius Nuncius*, p.73.

⁴⁵² Copernicus, p.50.

gives back... an illumination'.⁴⁵³ Indeed, that a subject as obscure as Earth-shine can find its way into *Paradise Lost* only serves to highlight the focused interest that Milton must have had during his reading of Galileo. *Siderius Nuncius*, predominantly, contains three new ideas with the satellites of Jupiter and irregularity of the moon's surface being the key two and, the third most significant, that of Earth-shine. Since it has little interest in contributing to the long-standing argument over the position of the planets, Earth-shine is often over-looked but here, in support of the Galilean system (and in reference to the Galilean text), Milton references it.

Were this passage of astronomical interest to end at this point, it would appear that Milton's astronomy, within *Paradise Lost* at least, is entirely one derived from Copernicus, and primarily through the Galilean defences of Copernican theorising. It does not conclude at this juncture, however. Indeed, the second half of this passage begins to show the case for the Ptolemaic and Aristotelian models within the poem. The suggestion that each of the heavenly bodies has 'Each had his place appointed, each his course' (III.720) mirrors Ptolemy's argument of the primary motions of the heavens that 'it rotates them with an unchanging and uniform motion'.⁴⁵⁴ That Milton should use the same closeness in quoting texts that describe the universe, whether they be Copernican, Galilean, or in this case Ptolemaic, hints at the true reason for the apparent convolution in Milton's portrayal of astronomical knowledge, and indeed in the confusion amongst scholars looking for a uniform system to ascribe to Milton's universe.

Simply put, the problem of ascribing a uniform nature to Milton's universe, is because there are two universes at work, and uniformity is only prevalent in one of them. Burden's argument that the poem is 'an exercise in clarification, finding system and order in what

⁴⁵³ *Siderius Nuncius*, p.69.

⁴⁵⁴ Ptolemy, p.45.

could, if wrongly taken, appear to be random and inexplicable',⁴⁵⁵ has proved to be incongruous. Milton creates one passage of varied Copernican, Galilean, and here, Ptolemaic references (if the circuit that 'walls this universe' (III.721) is considered to mirror the fixed stars that bound Aristotle's universe then his system too falls into this image) showing that uniformity of knowledge is undesired. The universe now described is the universe that takes place outside of the garden: it is the universe described during Satan's flights, the universe viewed by telescopes that peer outside of Eden into the chaotic world of knowledge that exists outside paradise. The second universe, the simpler, more uniform universe, is the universe as described in Eden.

The next area of astronomical interest within *Paradise Lost* arises in book five. Whilst within the Garden, the Sun is seen to be taking an 'eternal course' (V.173), and this image of motion ascribed to the Sun moves Milton's depiction of astronomy towards the Ptolemaic, Aristotelian, and possibly even Tyconic systems. The reference becomes more clearly Ptolemaic when the order of Milton's descriptions are considered. The passage (V.171-9) moves from first discussing the Sun, then the moon, next the fixed stars, and finally the 'wandering fires' (V.177), or planets (Ptolemy refers to them as 'wandering stars'). The structure of Ptolemy's *Almagest*, follows a pattern of first discussing 'the position of the ecliptic',⁴⁵⁶ 'secondly we have to go through the motion of the Sun and of the moon',⁴⁵⁷ 'our final task in this way of approach is the theory of the stars'⁴⁵⁸ 'first with the sphere of so-called fixed stars'⁴⁵⁹ 'and following that by treating the five planets'.⁴⁶⁰ Thus, if the

⁴⁵⁵ D.H. Burden, *The Logical Epic* (London: Routledge and Kegan Paul, 1967), p.1.

⁴⁵⁶ Ptolemy, p.37.

⁴⁵⁷ Ibid.

⁴⁵⁸ Ibid.

⁴⁵⁹ Ibid.

description of the ecliptic is ignored, and as a highly mathematical construct inappropriate for poetry it can be, then Ptolemy's structure is an exact replica of the one Milton follows in these lines.

Further evidence of Milton's double universe comes from the continued use of ancient astronomy within the Garden. The passage of astronomical geometry in book seven (VII.225-42) sets as the centre point for God's 'golden compasses' (VII.225) the centre of the universe, and 'self-balanced on her centre' (VII.242) hangs the Earth. This clear image of geo-centricity may appear to counteract the previous Copernican imagery, but again this passage describes knowledge within Eden. The bold images of geometry draw to mind the graphical representations of Ptolemy and the overtly stated geo-centricity here has been confused for 'Ptolemaic... shadowings'.⁴⁶¹ But it is not a mere shadowing. This is definite use of Ptolemy to describe the universe just as the earlier Copernican images were definite usages of Copernicus and Galileo. The universe of *Paradise Lost* is one in which the position inside, or outside, of Eden determines perspective. Within Eden, the universe follows the biblically sound Ptolemaic and ancient theories, outside the Garden knowledge is less stable, more convoluted, and Copernicus and Galileo are dominant.

Nowhere are these two worldviews, and indeed, as Milton poetically creates them, two worlds, shown in more open debate than in book eight, as Adam and Raphael frankly discuss the nature of the heavens (VIII.5-168). Nicolson has argued that these two standpoints are drawn from work of Milton's English contemporaries, arguing that Adam's words are based upon the works of 'John Wilkins'⁴⁶² and that Raphael 'follows Alexander

⁴⁶⁰ Ibid, p.38.

⁴⁶¹ Walker, p.109.

⁴⁶² M. Nicolson, *John Milton* (London: Thames and Hudson, 1964), p.272.

Ross'.⁴⁶³ However, considering the great interest that we have already seen in Galileo throughout Milton's work, and the lack of references to English science (Ross, Wilkins, Dee, and Recorde are all ignored, as are their works) I am more inclined to acknowledge Johnson's reading of this passage's source. Johnson has demonstrated that Milton's source for this discussion is Galileo's *Dialogue Concerning the Two Chief World Systems*⁴⁶⁴ and how these two systems were not actually the two primary opposing systems of the day, as 'the scientific rival of the Copernican system was the system of Tycho Brahe'.⁴⁶⁵ Indeed, that Galileo's vociferous damning of Aristotle could never 'prove that the Earth is *de facto* the centre of the universe'⁴⁶⁶ adds weight to Johnson's conclusion that Milton's Galilean source was designed purely to attack his 'Aristotelian and theological adversaries'.⁴⁶⁷ What Johnson ignores, however, despite his accurate identification of Milton's source and interesting note on Milton's interest in 'descriptive'⁴⁶⁸ astronomy, is that Milton takes Galileo's theme, and inverts its purpose. Milton produces a dialogue that in fact decries the Copernican system in favour of the ancient one. Raphael's mocking tone is more than apparent in his rhetorical questioning of 'What if the Sun, Be centre to the world' (VIII.122-3). Svendsen argues that this provides a 'technically shallow sketch of the heliocentric system',⁴⁶⁹ however, Raphael, as many more recent scholars have noted, seems to give a fairly full and accurate portrayal of the Copernican system. Raphael notes how the planets move 'about him [the Sun] in various

⁴⁶³ Ibid.

⁴⁶⁴ Johnson, *Astronomical Thought in Renaissance England*, p.284.

⁴⁶⁵ Ibid.

⁴⁶⁶ Galileo, *Dialogue Concerning the Two Chief Systems World Systems: Ptolemaic and Copernican*, trans. S. Drake (Berkeley and Los Angeles: University of California Press, 1953), p.33.

⁴⁶⁷ Johnson, p.286.

⁴⁶⁸ Ibid, p.285.

⁴⁶⁹ Svendsen, p.44.

rounds'⁴⁷⁰ (VIII.125) and 'three different motions' (VIII.130) ascribed to the Earth, before demanding that Adam shun such curiosity, focussing his attention upon serving and fearing God (VIII.168). Of greater interest though, are Adam's queries, about the 'numbered stars' (VIII.19), about 'Spaces incomprehensible' (VIII.20), and the 'sedentary Earth' (VIII.32) that he perceives as 'Served by more noble than herself' (VIII.34) as she is but a 'spot, a grain' (VIII.17). These initially seem to be the naive questioning of a student,⁴⁷¹ failing to comprehend fully the situation about which he speaks. However, the words have clear and powerful resonances. That the stars are now perceived as 'numbered' clearly opposes the earlier, Galilean, belief that they are innumerable. That space could be beyond comprehension openly mocks the pursuit that Galileo followed, and believing in a stationary Earth again shows that within Eden, the pursuits and learning of Galileo and Copernicus are shunned and ignored. The confusion, however, over why the 'more noble' planets would serve the 'spot' that is the Earth, shows hope for Galilean thought, as it survives through curiosity. Curiosity, as we shall later see through the lens of Milton's *Commonplace Book*, has an uneasy place within Milton's mind, as he both enjoys it as a means to learning, and fears it as a path to instability. Adam's curiosity over why the insignificant Earth⁴⁷² should be centre to the vastness of space has powerful implications. Thoughts such as these prompt the action of the telescope. They prompt the probing and searching that leads to discovery, ultimately it is through gazing out of paradise (through telescope, or through the desire to explore) that has the potential to expand Adam's mind. Eve wishes to know what she has been forbidden and, as such, eats the fruit that is prohibited. Galileo wished to know of the

⁴⁷⁰ The use of 'rounds' has two significances here. Firstly the word has connotations fitting with the dancing metaphor that Raphael is using, but secondly it shows Milton to be unaware of Kepler's studies into planetary orbits, as Kepler discovered that far from being 'round' the orbits are elliptical.

⁴⁷¹ Adam and Raphael's discussion has been compared to a discussion as played out in the Italian Academies by A. Nardo, 'Academic Interludes in Paradise Lost', *Milton Studies*, 27 (1991), 209-41, 236.

⁴⁷² Earth's insignificance can be seen as evidence for the Copernican system at play here since Copernicus was criticised for his systems demotion of the Earth's importance.

stars and viewed them, ultimately to the displeasure of those around him, leading to his incarceration. At this point in the poem, Adam has the potential to experience a similar fall from grace, because of a similar curiosity. Amy Boesky⁴⁷³ demonstrates that Galileo is constantly linked with ‘spots’ (as well as the more regularly observed link between Galileo and his telescope). The spots and Galileo are used in conjunction by Milton ‘five times’,⁴⁷⁴ and this, which can readily be taken as a reference to the spots that Galileo viewed on both the Sun and the moon, is seen by Boesky as portraying ‘the risks of curiosity and of certitude’.⁴⁷⁵ Boesky would have it that the spots associated with Galileo mark his work as dangerous, and potentially flawed, but as we have seen, Adam links the Earth with a spot. The linking of Adam with thoughts of astronomical spots, much as Galileo is linked to them, may merely be an attempt to justify the virulent mocking tone with which Raphael shall rebuke Adam’s curiosity. If this were so Raphael does not seem cruel in his mockery, as he does so to protect Adam from falling, as Galileo did, into curiosity. However, this mention of a ‘spot’ may also act to undermine the negative readings that Boesky, Brady, Flannagan, and others have acknowledged.⁴⁷⁶ Rather than being a flaw, or a sign of corruption in the pursuit of knowledge, or even in the data received from telescopic observations, the comparison of the Earth to a spot, rather than belittling the Earth, may glorify the ‘spot’. Milton has condensed the world into a ‘grain’ (VIII.17), and, thus, the beauty of paradise, the wonders of the garden, and indeed the world outside the garden, are capable of being reflected in a spot. For the spot to contain so much, to be so grand, surely removes any negative connotations from its portrayal. If the beauty of Earth is found in a spot, then the vastness of space can be

⁴⁷³ A. Boesky, ‘Milton, Galileo and Sunspots’, *Milton Studies*, 34 (1996), p.23.

⁴⁷⁴ *Ibid.*, p.26.

⁴⁷⁵ *Ibid.*

⁴⁷⁶ M. Brady, p.131: R. Flannagan, ‘Art, Artists, Galileo, and Concordances’, *Milton Quarterly*, 20 (1986), 103-5.

expounded properly, as making the spot a microcosm of the terrestrial world scales the universe into proportions that are imaginable to the reader.

Milton is keenly aware throughout *Paradise Lost* of the need to transfer potentially unimaginable images from his mind to the minds of readers. To force a mental image, the reader first needs a frame of reference, some form of cultural doxa that enables them to understand what it is they are attempting to create in their mind. As Milton's readers were probably unaware of the exactitudes regarding the telescope, and had little by which to explain and understand vastness on scales that exceed anything found on Earth, Milton had a significant problem to overcome. If he intended to use, vast astronomical expanses, and indeed astronomical imagery, he needed methods by which he could justify these scenes with his reader's personal experiences of life so that they may understand and imagine the images he presented. It is entirely fitting, that Milton's solution should come from science, as it is in attempting to portray science that the problem first arises. Milton manages to transfer knowledge, and images of science (particularly of scientific instruments) using analogy. Marjara terms Milton a 'poet of the unseen',⁴⁷⁷ and displays how Milton makes the unseen visible through analogy. Analogy is a scientific tool;⁴⁷⁸ Galileo used the analogy of the smudge of an oily finger upon a carafe of wine to explain the appearance of a comet's tail, and Milton also uses this tool. Adam's image of the 'grain' makes the scientific understanding of the magnitude of space understandable to a layman. It seems vastly appropriate, that Milton should take a tool for knowledge transference, from science, a practice that aims to seek out knowledge, in order to describe scientific method and tools, which in turn have been used to allow the reader to gain insight into Milton's personal conceptions of knowledge. Analogy, and other focused methods of knowledge transference,

⁴⁷⁷ Harinder Singh Marjara, 'Analogy in the Scientific Imagery of *Paradise Lost*', *Milton Studies*, 26 (1990), 81-100, p.82.

⁴⁷⁸ *Ibid*, p.83.

because they are transferring knowledge of science, ultimately lead to the transference of knowledge about the nature of knowledge.

A further instance of Milton concentrating upon how best to realise a poetic image in the readers' minds, so that they may have enough understanding to appreciate the knowledge he wishes to impart, comes from Milton's linking of Galileo, the telescope and 'spots'. We have seen how Boesky finds this linkage disparaging, and indeed Brady feels that this linkage is negative, finding that the poem 'yokes'⁴⁷⁹ Galileo with the device. However, what these two critics ignore is that unlike the modern reader, early modern readers would have been at a much greater disadvantage in terms of understanding Milton's images. The modern reader has internet searches; the early modern reader has the only newly affordable printed word. Milton, therefore, when discussing an obscure subject, such as Galileo's discoveries, the workings of a telescope and the 'spots' that can be perceived with the telescope's aid, creates and reuses images of a tripartite nature to help the reader understand. The scientist, his tool, and his discovery are presented together, as any one alone may not have significance to the reader, but the three in conjunction are far more likely to spark intellectual interaction. The tripartite tableau is a tool to make the obscure more knowable, since a knowledge of any of the three individual components can then be considered a knowledge that is relevant to all three components, owing to the repeated linking of the components to make a complete image. It makes sense that Milton would focus upon how best to transfer the images he is describing at points when he discusses science, since it is through the presentation of science, particularly astronomy, that Milton explores fully the concept of knowledge.

⁴⁷⁹ M. Brady, p.138.

‘Knowledge’ and Lying in Milton’s *Commonplace Book*.

To further a discussion of Milton’s conception of knowledge, it seems prudent to explore Milton’s *Commonplace Book*. The *Commonplace Book* is ostensibly a simple enough document. It covers Milton’s general reading from the Horton period (or possibly fractionally earlier)⁴⁸⁰ until 1665 (though some would argue that this date should be put back by a year or two, potentially up to the date of *Paradise Lost* being published). The work is divided into Moral, Economic and Political subcategories, with excerpts, quotations and Milton’s opinions upon these passages listed under them. Milton does not restrict himself in the genres he considers, with philosophy set next to poetry, the extreme alongside the moderate. Nor does Milton restrict himself in the languages he is prepared to use, with Italian, Latin, English and Greek all featuring. The work’s eclecticism is therefore clear. However, whilst the work itself is simple enough to describe, the work’s purpose is far from simple to define. The book is clearly not designed for publication; or even for consideration by anyone other than the poet. The book therefore has a highly personal aspect, and seems to be more a work for contemplation and introspection rather than a literary text. The book itself is a device, an aide memoir, and a manner by which Milton could, almost meditatively, return to a previous state of mind or a previous form of contemplation. The device acts as a pathway for Milton to stimulate opinions and notions that he may have experienced years before. The *Commonplace Book* can therefore be termed the work closest to Milton in terms of his thoughts, opinions and personality. Every entry, every comment, and every passage that is ignored are either included or excluded from the *Commonplace Book* according to what Milton personally believed, was emotionally moved by and was intellectually stimulated by. The passages are not corrupted by the desire to present any form of persona, or to create any

⁴⁸⁰ Sauer argues for the *Commonplace Book* covering all of the years ‘from college’ in E. Sauer, ‘Reading Practices’, in *Milton in Context*, ed. S. Dobranski (Cambridge: CUP, 2010), p.450.

public image, and as such the work can be seen as the purest episode of Miltonic thought (and preference in selection of materials) that is available to the modern critic.

Despite the work's value, and encyclopaedic nature, it does not contain references to Milton's scientific knowledge. Whilst this may originally appear a hindrance to this investigation, in fact, it is what makes the thesis a viable prospect; as with entries in the *Commonplace Book* describing Milton's opinions on science, there would be no room to theorise over this aspect of his works. Equally, the work does touch upon Milton's conceptual understandings of curiosity, of lying and of poetry, and each of these areas has a key part to take in a discussion of the presentation of science and knowledge in Milton's poetry. Clearly, the discussion Milton enters into 'OF CURIOSITY'⁴⁸¹ has great significance to a number of passages previously explored by this chapter. Milton's interest in the telescope, with its inherently curious nature, the attempts by Raphael to quash Adam's curiosity over the universe, the mistake of Uriel in feeding Satan's curiosity by leading him to the garden, and the very fact that man falls in the pursuit (and digestion) of knowledge, all display the power of curiosity within *Paradise Lost*. The *Commonplace Book* is fairly unadorned whilst talking about curiosity. Whilst talking 'of curiosity'⁴⁸² Milton quotes:

That the profound questions concerning God which the human reason explains or comprehends with considerable difficulty should either not be thought about or should be suppressed in silence lest they be proclaimed to the people and from this source a cause of schisms be given to the church.

These words (copied into the book in Latin, around 1635-7)⁴⁸³ clearly define curiosity as being dangerous to religion. The implications of this privately held conviction are enormous. Raphael's forbidding of curiosity to Adam is now- far from being the restrictive actions of an Aristotelian academic fighting the new wave of Galilean thought as a negative action- an

⁴⁸¹ *Commonplace Book*, p.380.

⁴⁸² Ibid.

⁴⁸³ Ibid.

action in defence of the faith. Raphael's line in this context is now entirely Miltonic. Uriel's actions in guiding Satan to Eden can now also be truly defined as a mistake, since Uriel is indulging an individual's curiosity, ultimately to the detriment of Christianity (or at least to the detriment of Christians). Thus, it would seem that Galileo, his telescope and his findings, despite their prevalence in Milton's work, are drawn into question. Not for their scientific accuracy, and potentially not even for being disruptive to the previously accepted understandings of the celestial bodies, but rather as implicitly dangerous to religion. Galileo is not a heretic according to Milton's definitions, but he is curious in a fashion that may prove detrimental to religious harmony. If we are to consider now the two universes that appear to be at work in *Paradise Lost* (the calm, scientifically inaccurate, but biblically sound astronomy of Eden and the disparate, scientifically accurate, but biblically reprehensible astronomy displayed outside of the garden) we can begin to understand the reason Milton values both universal views. Milton's universe, external to the garden, is riotous, it is unwieldy, but has a great deal of scientific truth in it. Milton is unwilling to deny this truth now it has been discovered, but the presence of a simple, stable universe, that, had Adam and Eve been religiously obedient, was perfectly suitable for the inhabitants of Eden shows Milton's questioning of whether such knowledge should be explored in the first place. Milton does not deny Galileo and Copernicus's findings, nor the right to find them, however he does question the piety of such actions in producing a pious astronomical landscape within the garden.

The second aspect of Raphael and Adam's discussion, and Uriel's mistake, that should be viewed in relation to the *Commonplace Book*, is the notion 'of lying'.⁴⁸⁴ Gillies, in measuring Milton's perception of lying, claims Milton 'did not feel himself licensed to lie in

⁴⁸⁴ Ibid, p.384.

the carefully delimited sense that Philip Sidney's *Apology for Poetry* had made legitimate'.⁴⁸⁵ It is apt that Gillies should turn to Sidney to define lying. His work *The Apology for Poetry* states poets to have been accused of being 'the principal liars',⁴⁸⁶ and defends them by claiming falsehood to be present in the works of 'physicians',⁴⁸⁷ and most importantly in the work of 'the astronomer with his cousin the geometrician'.⁴⁸⁸ Gillies is correct in perceiving that Sidney's answer to the critics of poets, namely that poets do not lie because 'he [the poet] nothing affirms',⁴⁸⁹ is not a substantial enough system by which to measure Milton's beliefs on the subject. Fallon also recognises that Milton has an 'unusual conception of the truth of poetry'.⁴⁹⁰ However, both offer very little by way of an alternative theory of lying through which Milton's conception of this act can be perceived. Such an alternative can be found in Milton's *Commonplace Book*. Milton's view of lying, within this work, is based around the notion that:

A good man is always accustomed to speak the truth, says Clement [of Alexandria in his book *Stromata*], "except as a form of healing as when a physician for the safety of those who are suffering will lie to the sick or speak a falsehood."

It is clear from the fact that Milton starts this section of his *Commonplace Book* with his own opinion, prior to a quotation, that he was keenly interested in the subject and morality of lying. It is rare for Milton to begin a new section of the book in any fashion other than a quote, paraphrase or direct reference, or a brief, usually two to three word, contextualising buffer followed by a quote, paraphrase or direct reference. Within the 'Ethical Index' of the book, Milton only on two out of twenty-four occasions opens a section with his personal

⁴⁸⁵ J. Gillies, 'Space and Place in *Paradise Lost*', p.27.

⁴⁸⁶ P. Sidney, *The Apology for Poetry*, ed. G. Shepherd (New York: Manchester University Press, 1973), p.123.

⁴⁸⁷ Ibid.

⁴⁸⁸ Ibid.

⁴⁸⁹ Ibid.

⁴⁹⁰ S.M. Fallon, *Milton Among the Philosophers* (Ithaca and London: Cornell University Press, 1991), p.160.

opinion followed by quotation or paraphrase that supports his assumption. Therefore, on the subject of lying, we can deduce that either Milton strongly held a conviction he wished to galvanise through received wisdom, or that he was troubled by his personal opinion and understanding of lying, leading to his expressing an opinion and then registering the opinion of another to justify his previously stated thought. In either scenario, Milton clearly has thought deeply about the nature of lying. His conclusion, that good men are honest, ‘except as a form of healing’ is of great significance within his poetic works. In the context of Raphael and Adam’s discussion, once again the *Commonplace Book* vindicates Raphael’s actions. Raphael has, as we have seen, condemned curiosity according to Miltonic belief, thus protecting the faith, now his lies about the nature of the universe (making Adam believe the universe to be Ptolemaic without allowing him to deduce evidence, whilst outside the Garden the universe is clearly Copernican) are equally justified. Raphael is acting to purge Adam of religiously dangerous curiosity, a curiosity that owing to its religious danger could potentially become physically dangerous to Adam owing to the expressly religious context within which he exists. As Raphael’s very name means ‘it is God who heals’,⁴⁹¹ and apocryphal tracts suggest that it is Raphael who heals the blindness of Tobit,⁴⁹² it is prudent to consider that Raphael is a form of physician telling lies. Thus Raphael is lying in a manner Milton deems permissible. Raphael’s untruths are the lies of an authority figure who is aiming to protect the one he is misleading, much as the physician of Milton’s example lies to his patient to protect him from mental anguish.

⁴⁹¹ ‘Raphael’ in P. Hanks and F. Hodges, *A Dictionary of First Names* (Oxford: OUP, 2006).

⁴⁹² The Book of Tobit 3.17. The healing of Tobit’s blindness is here also of interest as it points to a certain ironic humour in Milton’s decision to have Raphael as the angel who delivers the teachings of God to Adam. One might expect that Gabriel, more commonly God’s messenger, rather than Raphael should be the angel used to inform Adam. However, as Raphael is associated with Tobit’s miraculous return to sightedness, there is a dark irony in his now distancing Adam from viewing the universe as it naturally is. Also when we consider that Galileo often termed his telescope in a manner almost befitting spectacles, that Adam is denied knowledge which can be viewed via the device is again deeply ironic.

That Milton's section 'of lying' continues by quoting Berni's lines:⁴⁹³

Truth is beautiful, nor through fear
 Must it ever be silent, nor through shame.
 When force or something of importance presses,
 Such a time may come when it must not be told.
 Truth does not increase or diminish by feigning,
 Nor is it always hidden by being called a lie.
 Rather, worthy and wise often
 Is he who keeps it hidden.⁴⁹⁴

is highly intriguing. The poem is entered into the *Commonplace Book* at least twelve years after Milton first transcribed a quotation under the heading 'Of Lying' and the initial theme of the poem is largely similar to the earlier quotation. Berni suggests the 'beautiful' nature of truth, and the importance it has, also suggesting that 'a time may come when it must not be told' as Clement's earlier quotation does also. What the Berni quote introduces, is the notion that such omission is not always 'called a lie', and that those who lie by omission are often 'wise and worthy'. Relating this passage back to Raphael again seems to glorify the angel's action in not allowing Adam knowledge that has been deemed beyond his needs. However, Berni's suggestion that the truth should not be hidden 'through fear' adds the first instance of Raphael falling from the Miltonic perspective of how curiosity and lies should be dealt with. Raphael demands that instead of looking to the heavens for knowledge, Adam should 'serve and fear' (VIII.168) God. Clearly this transgresses Milton's opinion of how the truth should be hidden, when it is permissible to hide it. Therefore, Raphael is characteristically Miltonic in the way he stems Adam's curiosity, on the grounds of the religious turmoil that may be produced by such an impulse. He is again acting correctly, according to Milton's *Commonplace Book*, in hiding information from Adam. Indeed this hiding of information is not even a lie in Milton's opinion, rather a wise action. However, the manner by which

⁴⁹³ Francesco Berni (1497-1535) was a Florentine poet and translator most notable for his Tuscan translation of Matteo Boiardo's *Orlando Innamorato*, and it is from this that these lines are quoted. It is not surprising that Milton quotes the translation, rather than the original, given his interest in Tuscany and the Tuscan dialect.

⁴⁹⁴ *Commonplace Book*, p.386.

Raphael hides information is not permissible. Raphael could hide knowledge for Adam's sake, but not through an expression of fear.

This transgression from Miltonic opinion, however, is slight when we consider the transgressions of other characters in *Paradise Lost*. Uriel's action in aiding Satan's journey, as we have seen, appears to be a mistake⁴⁹⁵ but Uriel is the victim of both a lie and of information being 'hidden'. Satan's stated desire to 'serve him [God] better' (III.680) is a lie, and according to all of the quotations in the *Commonplace Book* this is an unjustified lie. Satan is taking advantage of Uriel, displaying curiosity and rather than hiding information to protect is altering information with the intention to injure. However, Satan's lie only works upon Uriel as 'neither man nor angel can discern Hypocrisy' (III.682-3). Thus, Satan only manages to lie to Uriel, and Uriel only reveals Eden's position and indulges Satan's curiosity, as he is ignorant of lies. Uriel therefore cannot be considered culpable for not recognising a lie as God has not divulged this information to him. It is God, who being infallible cannot make a mistake, that directs Satan to Earth then. God's decision to hide knowledge of lying from angels should also be scrutinised according to Milton's classifications of lying in the *Commonplace Book*. God has hidden information, and this may be considered wise, but in doing so he endangers mankind. Thus God's hiding of information is not justifiable according to Miltonic perceptions of morality. God is guilty of un-Miltonic lies about the nature of lying.

To criticise Milton's God has several obvious problems for any critic. Empson points out that many have seen Milton's God as 'somehow embarrassing'⁴⁹⁶ and also demonstrates

⁴⁹⁵ Uriel's name, as with Raphael's, is also of interest when we consider Milton's understanding of lying. Uriel's association with 'the sun in rabbinical writings' has been noted by Raymond in *Milton's Angels* p.271, and according to the relevant entry in *A Dictionary of First Names*, his name translates as 'God is my Light'. That Milton uses Uriel as the one who guides Satan (formerly Lucifer, meaning 'light-bearer') to Earth, has great ironic power, as Uriel is the bringer of the one who formerly was the bearer of light.

⁴⁹⁶ W. Empson, *Milton's God* (London: Chatto & Windus, 1965), p.9.

Lewis's defence of Milton's God that 'many of those who say they dislike Milton's God only mean they dislike God'.⁴⁹⁷ Empson was clearly distressed by the implications of Lewis's words upon his own work (and potentially immortal soul), and then goes into a lengthy explanation of his personal beliefs surrounding the nature and personality of God, both inside and outside of *Paradise Lost*. Such a justification of a critic's personal religious beliefs is unnecessary. Lewis's presumption that his fellow scholars are incapable of drawing a conclusion on a literary figure without the biases of their personal religious leanings conflicting with such a judgment is false. Therefore, when I say that God lies, my words are most certainly only intended for the God Milton writes of in *Paradise Lost*.

The concept of God lying may seem somewhat outrageous, but Book Ten of *Paradise Lost* seems to reveal a far greater lie that God has been promoting. Adam and Eve leave the garden disgraced, and as they do Milton describes the effect of their actions upon the universe. The Sun 'had first his precept so to move' (X.652), the 'blank moon' (X.656) had 'Her office... prescribed' (X.657), the planets take up positions with 'noxious efficacy' (X.660) according to the rules of 'sextile, square, and trine' (X.659) and the 'centric globe' is turned 'oblique' (X.671). These changes ostensibly describe the solar system being thrown into turmoil because of the magnitude of Adam and Eve's actions. There is a neat telescopic nature to the images Milton creates of the effects of the Fall, where an action so small as taking a bite, is instantaneously so massive, and the singular event can alter the universe in its entirety. However, the nature of the changes is telling. If the Sun has his 'first... precept so to move' this implies that previously the Sun was stationary. In essence the Sun can be seen to move from a Copernican stance (in which the heliocentric universe has a stationary solar orb) to a Ptolemaic stance (where the Sun moves). If we consider the dual nature of the universe that we have already viewed in this chapter, God's lie is revealed. Raphael preaches a

⁴⁹⁷ C.S. Lewis, *A Preface to Paradise Lost* (New Delhi: Atlantic Publishers, 2005), p.124.

Ptolemaic universe to Adam, and within the garden this is taken to be the truth, outside of the garden the evidence points to a Copernican system, and now God is altering the heavens so as to make them fit the Ptolemaic system. In essence God is hiding the lies he has told to Adam, so once he leaves the garden he cannot find evidence of God's lie. That the moon is now 'blank', denies the discoveries of Galileo in finding the imperfections of the moon's surface. There would be no need to mention the Earth as 'centric' had it previously not been so, and again this is a retrograding of the modern astronomical knowledge, back into the Ptolemaic system. I say Ptolemaic system in particular, rather than ancient, or Aristotelian, as the planets are defined in their various places by mention of the ancient tools of empirical astronomy. The 'sextile' the set-'square' and the 'trine' all aided Ptolemy in his defining of the universe, and Milton's mention of them subtly reveals the manner of God's deception. If the lie God tells by omission is un-Milonic (according to the morality laid down in the *Commonplace Book*), then this lie is even further from Milton's own moral understanding of acceptable lies. God cannot be acting as a healer, or even through the paternalistic actions of a supposed superior in defence of his subject, as the changes are harmful to Adam. God is casting out the first man and woman, and is disregarding their safety and health, so lying in this instance does not protect or serve the people lied to, God is merely hiding the evidence of his dishonesty.

Any criticism of God within *Paradise Lost*, must be considered as to whether or not it is a criticism of the Milonic character 'God' or of the Church that claims to act according to God's wishes. God's action at this point in the poem can be seen as also being a criticism of the Church's actions in their treatment of knowledge. God changes the world so that upon being cast out of Eden, Raphael's line is correct, but when he was spouting it, it was lies. God makes the universe mirror the biblical teaching within the garden, much as the Church forbade discoveries about the universe that made the universe other than that described in the

scriptures. Therefore, this subtly revealed lie is also a covert support for the actions of Galileo and Copernicus. Milton has wrangled over the nature of knowledge, and the problems of curiosity and piety, to the point of placing two universes (an experimenting and curious universal view, and a conservative introverted universal view) alongside each other. These two universes, with their opposing views of the treatment of curiosity and knowledge, sit alongside each other until the inhabitants of the Edenic world enter the extra-Edenic. They then collapse into a unity at this point, a unity that is both biblically adhering in its attributes, and simultaneously a lie. Thus, whilst Copernicus and Galileo's curious, experimental and expansive treatment of knowledge and knowledge gathering fails at this point; it is subtly approved of by Milton. As a treatment of knowledge, the expansive, non-conservative view is at least not corrupted by the morally reprehensible stance of lying. Thus, the conservative systems of knowledge seemingly win through in *Paradise Lost*, despite moral objection which favours the extroverted systems. Indeed, the moral objections make the Copernican system, whilst the physical loser in the piece, the moral victor, and as such the victor to those pursuing truth.

There is, therefore, a definite link between Milton's conception of science, his conceptions of knowledge and lying, and the manner by which science (particularly astronomy) is applied within Milton's poetic corpus. It would also appear that an answer to the most commonly asked question on Milton's astronomy (namely the scientific source of Milton's astronomical writings) can aid us in understanding the specifics of the relationship Milton wishes to define between science, art, knowledge and truth.

The scientific nature of Milton's astronomy is in fact far more complex than simply the assignment of one planetary theory, a methodology that many commentators have accepted. Notions such as Fallon's that 'Milton was careful to exclude elements that might be

falsified by later discoveries in science'⁴⁹⁸ and that Milton dissociates himself from 'the false lore of classical literature',⁴⁹⁹ are false in that they view the Copernican aspects of the universe of *Paradise Lost*, to the neglect of the Ptolemaic. Those, such as Nicolson, who see aspects of Ptolemy within a broadly Copernican structure, are equally falsifying the text of *Paradise Lost* as in fact both situations reside within the work. Therefore, it is not merely the discussion of Raphael and Adam (which has already been discussed at length by this chapter) that mirrors Galileo's *Dialogue Concerning the Two Chief World Systems*, in fact the entire astronomical structure of the universe as created by Milton does. However, unlike the discussion of book eight where the purpose of the *Dialogue* is inverted to promote a Ptolemaic system, the hollow 'victory' of the Ptolemaic system over the Copernican (at God's behest) in book ten, in fact agrees entirely with Galileo's argument. The Copernican system, by way of the honesty that is implied of it, owing to the dishonest nature by which the Ptolemaic system is implemented, is the literal loser of the contest but the moral victor. In Galileo's text, the Copernican system succeeds in the rhetoric of his philosophical debate. In Milton's, the Copernican system also succeeds, again by way of rhetoric rather than action. We have also seen how Milton's conceptions of knowledge, and ultimately the difference between truths and lies, are based in his reading. As Milton draws moral lessons on the nature of lying from poetry, it seems appropriate that he should reapply these lessons to the poetry he writes himself. Gillies has also pointed out that as *Paradise Lost* comes after *Eikonoklastes*, 'the polemic in which Milton had attacked his royalist opponents precisely for blurring the line between poetic fiction and historical truth in their mythologization of Charles as royal martyr',⁵⁰⁰ and therefore Milton had aligned himself with a 'commitment to

⁴⁹⁸ Fallon, *Milton Among the Philosophers*, p.163.

⁴⁹⁹ Ibid.

⁵⁰⁰ Gillies, p.28.

truthfulness'.⁵⁰¹ Milton's epic, in its handling of science, aims to give as true a perspective as is possible. Milton displays scientific debate (at least as far as a layman such as himself could understand it) within his text, placing contradictory knowledges alongside each other, precisely because the theories contradict. Milton's dual-natured universe displays fully the complexity of studying, and the passage by which theories must flow in order to become accepted as knowledge. That the 'knowledge' of astronomy that ultimately succeeds in *Paradise Lost* is a falsehood only strengthens further the implicit assault upon religion's attempts to curtail human knowledge for reasons that Milton cannot privately justify. When this idea is considered it becomes clear precisely why Galileo's *Dialogue* is presented in an inverted form by Raphael. Raphael, as a conduit of God's word and religion's teachings, is expressly altering the facts of Galileo's text. The evidence for the contents of Galileo's work is incontrovertible, as anyone reading Galileo's words can glean his argument, but here religious figures present the work inverted, thus displaying the corruptive way in which the Church of Milton's day could affect the dissemination of knowledge. It is a neat parallel, that Galileo's text should be falsely represented, and persecuted by religion, when Galileo himself spent time under the physical persecution of house-arrest at the behest of the church's inquisitors. That Milton should ultimately liberate the argument of the *Dialogue Concerning the two Chief World Systems* implicitly through God's deception is a fitting end to the discussion of knowledge and astronomy within *Paradise Lost*.

⁵⁰¹ Ibid.

Conclusion

It may seem unusual to attempt to unite two such disparate writers as Donne and Milton within the same thesis. The two are at a significant chronological divide, so much so that they lived through (what we would now term as) two different periods, under a variety of different monarchs. Their subject matter, experiences of life, and styles can seem – at first glance – to be alien to each other, with only tangential points of similarity. However, as this thesis has sought to demonstrate, the disparity between these two writers – when read in conjunction with their interaction with scientific literature – provides a far more coherent narrative than may originally have been expected. Indeed, the disparities serve only to embolden the claims that this thesis is capable of making.

We have seen Donne to be driven to write, notably in his *Devotions*, by the failings of the human form. Bodily imperfection became his inspiration – notably, the change in his body's workings and the experience of a new situation is a key factor in this increased creativity. Similarly, when dealing with the science of astronomy it was the 'new' that inspired Donne most significantly. *Biathanatos*, with its marginal references to Kepler, and *Ignatius His Conclave*, with its detailed discussions of the astronomers, lay testament to this fascination with the 'new'. Donne's relationship with scientific material also demonstrates a great deal of prototypic, and in some situations almost prophetic, interactions. In response to scientific development, he was guided towards the new and inspired by the potential it contained.

Milton's response to these same, or similar, stimuli has proved far more conservative. He treats the body as a unified form, rather than the dismembered parts that Donne revelled in. Even when relating the birth of Eve, which is in fact the dissection of Adam, within *Paradise Lost* – perhaps the most explicit dissective act in either author's canons – Milton

shies away from the realities of the act into ethereal description that ignores the images of body horror that Donne exploits. Milton is similarly restrained when his attention is turned to astronomical matters. He models his greatest cosmic debate – that of Adam and Raphael – upon a Galilean work which was already established by the time of Milton’s usage. Indeed, Galileo’s work in itself mirrored the present understanding with an archaic one – in the ancient style of a philosophical dialogue – and, thus, Milton’s desire for a conservative uniformity of thought in such matters becomes even more strongly established.

Although the two writers, from such brief summaries, may seem at severe odds in their interest in scientific matters – it is Milton’s *Commonplace Book* that best demonstrates a fundamental similarity between the two. Within this book – most often disregarded as a mere notebook, or storehouse of information – Milton dissects the corpora of the authors he has read and from this gains the same level of creative thought that Donne derives from imagined dissections of the human form. He took knowledge which he had gathered, filtered it for interest and use, and redacted various passages, before compiling them together in a further ‘compilation’ of parts. The process of commonplacing is in fact akin to the dissectory practice of the early anatomists – extracting the minutiae so that they in turn may be examined and new narratives of understanding forged, based upon this close examination. Indeed, this process of inspecting and shaping new knowledge based upon the understanding that such examination brings is crucial to all of the empirical science of the period. At a time when knowledge ideation was finally being linked explicitly with experiential evidence (and sensory evidence) both Donne and Milton are seen to engage in literary experiments that exploit the same techniques.

Thus, we are presented with a situation in which two seemingly disparate writers are seen to be treating the act of knowledge acquisition and dissemination – across what we would presently see as boundaries between the various genres of knowledge – in a highly

analogous form. Two writers as disparate as Donne and Milton followed the same basic process of empiricism and, moreover, this process is a replica of the methods of Galileo, Copernicus, Kepler, Harvey, and Vesalius – the most prominent scientific figures of their day. What is revealed is a system whereby both scientific understanding and scientific methodology, are transferred into an artistic situation. The images of Vesalius's *Fabrica* act as visual representations of the process at work. Whilst we now may deem the inter-relation of art and science as interdisciplinary, art – be it physical as in the images, or literary as in Donne and Milton's texts – and science are actually demonstrated to be simultaneously performing the same functions in the same manners. Both aim to explore, so that understanding may be gained and then disseminated as broadly as possible. In doing this, both rely upon empirical observation to achieve their aims.

Indeed, observation forms the fundamental process behind the act of empirical evidence collection. Thus, there is a great irony in the blindness of both Galileo – the man who first saw the Medicean stars – and Milton – the man who so deftly dissected an entire body of historical, philosophical, biblical, and classical literature in his *Commonplace Book*. It is perhaps for this reason that Milton's creativity is drawn from imagined dissections of theoretical concepts – such as the interaction of knowledges – rather than from the directly observable nature of the human body. In many senses, Milton's creative empiricism is performed despite his body – rather than because of his body as it is with Donne.

The notion of creative empiricism may seem oxymoronic. Indeed, our current understanding of empiricism is that it is without subjective interference – that it is free from the ill-discipline of creative action, being rooted in logic and a pursuit of 'truth'. What Donne and Milton's redefinition of scientific empiricism demonstrates is the fundamentally creative nature of the empirical act. Literary exploitation of empirical methodology inherently demonstrates the creative potential of empirical acts, as the empirical collection of data must

be expressed in order for this data to have worth and this expression is an act of creation. When placed in a literary context, the artistry of the creative expression makes this more evident than the more logically minded language of the scientist. Ultimately, artistic and scientific pursuits – within this period – are revealed by such thought processes not to be independent subjects, but rather to be complementary, and even symbiotic, pursuits. Both play crucial roles in the acquisition and dissemination of knowledge and – as this study of Donne and Milton’s works hopes to have demonstrated – neither would truly succeed in its aims without the other.

This thesis, therefore, reveals an underlying unity within the landscape of early modern knowledge and, in part, a similar harmony to the processes inherent to the workings, expansion, and perception of the nature of understanding. The classification of areas of study is rife in this period, but the boundaries that form these classifications are inherently permeable. Neither Donne nor Milton were fettered by a sense of being inexpert,⁵⁰² nor were they limited in their sources of inspiration – drawing creatively, as we have seen, from a wealth of scientific sources as well as many others outside of this thesis’s remit. Equally, despite the intrinsic differences in the lives, experiences, and artistic predilections of the pair, both Donne and Milton can be seen to exploit similar tactics, and strategies, when approaching scientific knowledge – and, therefore, to have had similar conceptions of the nature, purpose, and correct usage of advanced learning. In the most general terms, both writers took materials alien to themselves, and their readers, and, once satisfied with both their own understanding of the material and the voracity of the material’s accuracy,⁵⁰³ employed methodologies that to the modern reader would seem interdisciplinary (such as the

⁵⁰² Despite Donne’s complaints during his time at Mitcham of a ‘poor library’, the obvious limitations of Milton’s astronomical understanding as seen through his early Latin poetry (p.228), and his complaints regarding the Cambridge syllabus, neither writer refrains from exploiting scientific literatures (of which they openly admit their lack of expertise) within their works.

⁵⁰³ Processes which, as we have seen, took vastly differing period of time for each writer.

use of scientific style analogies or association through juxtaposition to convey the obscure, and dissectory methods to reduce information to its simplest form) in order to synthesise this information into their own creative output. Both Donne and Milton vary stylistically – with Donne’s dissectory practice spilling into his artistic works whilst Milton’s remains almost solely within the *Commonplace Book* – and yet there is an inherent similarity in purpose and practice. Ultimately, this thesis has revealed both the eclectic and democratic nature of knowledge within the English Renaissance – as the educated individual, regardless of specialisms, could access, absorb, and reproduce understanding using a standard set of practices which, owing to their repeated usage in a variety of contexts, must have been accessible and intelligible to the masses.

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