

**‘Christian Philosophy’: Medical Alchemy and
Christian Thought in the Work of Jan Baptista Van
Helmont (1579-1644)**

Submitted by Delia Georgiana Hedesan to the University of Exeter
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Abstract

Today, the Flemish physician, alchemist and philosopher Jan Baptista Van Helmont (1579-1644) is mostly remembered as one of the founders of modern chemistry and medicine. However, Van Helmont saw himself rather differently: he firmly believed he had been called to articulate a 'Christian Philosophy' that would bring together Christian thought and natural philosophy in a harmonious synthesis. His 'Christian Philosophy' would be purged of the Aristotelian 'heathenism' he felt Scholasticism had been tainted with. Instead, it would convey a unitary view of God, Nature and Man that was in accord with Christian doctrine.

The main purpose of this thesis is to understand how Van Helmont attempted to construct this new Christian Philosophy. The thesis will argue that the inspiration for this project lay in the medical alchemy developed by Theophrastus Paracelsus (1493-1541) following medieval precedents. Paracelsus and many of his followers expressed the view that alchemy can act as the Christian key to Nature, and therefore an alliance of alchemical philosophy and Christianity was not only possible, but natural.

Van Helmont concurred with this perspective, seeking to ground his Christian Philosophy in both orthodox Christian thought and medical alchemy. His religious ideas drew chiefly upon Biblical and Patristic sources as well as on German medieval mysticism. Van Helmont sought to complement this approach with an alchemical view that emphasised the hidden presence of God in Nature, as well as the role of the alchemist in unveiling this presence in the form of powerful medicine. Indeed, in Van Helmont's thought Christianity and alchemy were dynamically entwined to such an extent that their discourses were not clearly separate. Van Helmont firmly believed the source of all things was God, and hence both the Book of Grace and the Book of Nature had their common origin in the light of the Holy Spirit.

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General Introduction

In his posthumous *Ortus medicinae* (1648), the Flemish philosopher, physician and alchemist Jan Baptista Van Helmont (1579-1644)¹ talked on several occasions about the ‘Christian Philosophy’ he was trying to formulate in his work.² Thus, in the treatise ‘The Birth or Originall of Forms’ (‘Ortus formarum’), he affirms that his theory that forms are infused directly by God is dictated by ‘Christian Philosophy’.³ Later, in chap. 23, ‘Nature is Ignorant of Contraries’ (‘Natura contrariorum nescia’), he similarly claims that, according to ‘Christian Philosophy’, the *semina* always obey ends known to and directed by God.⁴ In the next chapter, ‘The Blas of Man’ (‘Blas humanum’), Van Helmont condemns the Aristotelian theory of the unmovable mover as incongruent with ‘Christian Philosophy’.⁵ In a similar vein, in chap. 91, ‘The Entrance of Death into Humane Nature is the Grace of Virgins’ (‘Mortus introitus in naturam humanam decus virginum’), he argues that Christian Philosophy rejects the Aristotelian concept of final cause.⁶

It is evident from these quotations that the concept of ‘Christian Philosophy’ is essential to Van Helmont’s worldview, and that it is strongly intertwined with his argument in the *Ortus*. This study is dedicated to investigating the ideas contained in his framework of ‘Christian Philosophy’. As the title of the thesis suggests, these can be

¹ There is no general accepted spelling of Van Helmont’s name. In respect to his first names, some scholars have used the French ‘Jean-Baptiste’, others the Latin ‘Johannes Baptista’; Walter Pagel and J.R. Partington preferred ‘Joan Baptista’. I have employed ‘Jan Baptista’, which is in line with the Flemish origins of the philosopher. In regards to the last name, both ‘van Helmont’ and ‘Van Helmont’ have been used in scholarship. I have adopted the latter spelling which seems relatively more common, for instance Pagel, Halleux and Ducheyne. It must be noted, for the sake of historical accuracy, that Van Helmont did not call himself ‘van’ at all, but ‘de’ in the French style; his letters are signed ‘J.B. de Helmont’ or ‘J.B.D.H.’. However, given the widespread usage of ‘Van’, I thought it was probably advisable not to change this familiar reference.

² Jan Baptista Van Helmont, *Ortus medicinae, id est, Initia physicae inaudita: Progressus medicinae novus in morborum ultionem ad vitam longam* (Amsterdam: Ludovic Elzevir, 1648). For the purposes of chapter titles, quotation and page references, I have referred to the English version of the *Ortus*, *Oriatrike or Physick Refined: the Common Errors Therein Refuted and the Whole are Reformed and Rectified*, trans. by John Chandler (London: Lodowick Lloyd, 1662). However, since the translation suffers from deficiencies, I included in the footnotes the page references to the edited Latin version of 1652: *Ortus medicinae, id est, Initia physicae inaudita: Progressus medicinae novus in morborum ultionem ad vitam longam* (Amsterdam: Ludovic Elzevir, 1652), accompanied where appropriate with the original Latin quotation.

³ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 133, ‘Ortus formarum’, p. 108.

⁴ Van Helmont, chap. 23, ‘Nature is Ignorant of Contraries’, p. 164, ‘Natura contrariorum nescia’, p. 134.

⁵ Van Helmont, chap. 24, ‘The Blas of Man’, p. 177, ‘Blas humanum’, p. 145.

⁶ Van Helmont, chap. 91, ‘The Enterance of Death into Humane Nature is the Grace of Virgins’, p. 648, ‘Mortis introitus naturam humanam decus virginum’, p.513.

roughly subsumed into two main areas: Christian thought and Medical Alchemy. Both terms require brief explanation.

Van Helmont's writings reveal a profoundly devout man, whose faith cannot truly be questioned. His was a religiosity that went beyond private belief; it was imbued in the very substance of his speculations, whether on Man, God, Nature or medicine. Hence this study proposes to analyse Van Helmont's Christian ideas in the context of his philosophy. The term 'Christian thought' encompasses not only Van Helmont's theology, but also his mystical practices, specific attitudes toward the natural world and theories about the divine status of the physician.

While infused with Christian ideas, Van Helmont's views are also deeply imbued with a philosophy inspired by medical alchemy.⁷ As is well known, Van Helmont was associated with the medical school of Theophrastus Paracelsus (1493-1541), even though he later moved away from it. This study will show that many influences on his thought stem from the speculation existing within the Paracelsian current. At the same time, the term 'medical alchemy' seemed more appropriate for Van Helmont's interests than 'Paracelsianism'. This is particularly so since Van Helmont was strongly attracted to medieval alchemy and was critical of Paracelsus on numerous occasions. The term 'medical alchemy' must also be taken to imply a strong philosophical component. For Paracelsians, alchemy was more than a practice, or *technē*; it was a well-contoured 'alchemical philosophy', a *scientia* that included both a theory and a practical side.⁸ This view was fully embraced by Van Helmont, who called himself 'philosopher by fire' (*philosophus per ignem*) as well as adept of the 'Art of the Fire' (*Pyrotechnia*).

These two terms, 'medical alchemy' and 'Christian thought' are hence key elements that comprise the framework of Van Helmont's 'Christian Philosophy'. Yet the composite term 'Christian Philosophy' seems to require further explanation. Unfortunately, despite using it rather extensively, Van Helmont did not offer any definition of the concept. Felicitously, the term 'Christian Philosophy' carries a level of

⁷ By 'medical alchemy' I am referring to a wide variety of ideas and practices related to the use of alchemical products or processes for medical purposes. I am subsuming within this framework such terms as spagyrics, chemiatria (or chymiatria), medical chymistry, iatrochemistry etc. Van Helmont tended to refer to this field as 'spagyria' or 'chymia'.

⁸ This was already recognised by the ground-breaking work of Allen Debus, *The Chemical Philosophy: Paracelsian Science and Medicine in the 16th and 17th Centuries*, 2nd edition (Mineola, NY: Dover Publications, 2002). Students of Paracelsianism and medical alchemy owe Debus a debt of gratitude for reconstructing the late sixteenth- and seventeenth-century current for the modern world. At the same time, as I will further note, recognition of the important philosophical and theological contributions of Paracelsians now demands that their ideas be investigated beyond the modern framework of chemistry and medicine.

intelligibility in itself. The juxtaposition of 'Christian' and 'philosophy' implies that Christian thought can be reconciled and compatible with philosophy.⁹ Undoubtedly, Van Helmont was aware that Christian thinkers since the time of St Paul, St Augustine (354-430) and Pseudo-Dionysius the Areopagite (fl 400-500) had attempted to reconcile Christian faith with Greek thought; closer to his times, this synthesis had been carried out by St Thomas Aquinas (1225-1274) and the Scholastic movement of the Middle Ages.¹⁰ However, in the era of the Renaissance, Scholasticism was no longer as popular as it used to be, and new perspectives were sought out. Perhaps one of the most promising alternatives that emerged in the early modern period was alchemical philosophy, which already had a tradition of merging alchemical theory and practice with Christian belief.¹¹ Following in medieval footsteps, Paracelsus and his followers developed their own versions of a religiously grounded natural philosophy in which alchemy was seen as the natural theoretical and practical foundation. The history of this endeavour is yet to be written.

In his turn, Van Helmont followed the path laid out by other alchemical philosophers and Paracelsians to affirm the profound complementarity of Christianity and alchemy. Yet raising alchemical thought to the status of Aristotelian philosophy required profound insight and analysis of the natural world. In his undertaking Van Helmont could partially rely on previous Paracelsians. On the other hand, it also required thorough knowledge of Christian sources and philosophical debates, as well as an all-encompassing and coherent vision that could rival, at least to some extent, the authority of Aristotle.

The main purpose of the study, then, is to understand how Van Helmont attempted to construct this new Christian Philosophy as a synthesis that could rival and even replace Scholasticism. I will try to equally disentangle, in the best possible manner, the ways alchemy and Christian thought interacted in his mind. It is one of the contentions of this study that religion and alchemy were dynamically entwined in his thought to such extent that their discourses were not clearly separate. This juxtaposition

⁹ It must be clarified from the start that I am not drawing here on the modern definition of 'Christian Philosophy'; instead, I am investigating what Van Helmont thought a 'Christian Philosophy' was. On the topic of 'Christian Philosophy' as a modern scholarly construct, see the useful review of Jorge J.E. Garcia, 'Does Philosophy Tolerate Christening? Thomas Aquinas and the Notion of Christian Philosophy', in *Philosophy of Religion for a New Century: Essays in Honor of Eugene Thomas Long*, ed. by Jeremiah Hackett and Jerald Vallulis (Dordrecht: Kluwer, 2004), pp. 37-63 (especially 37-41). As Garcia points out, the modern concept was introduced chiefly by the historian Etienne Gilson and his mostly Catholic Thomist supporters.

¹⁰ Hence Etienne Gilson's branding of Thomism as 'Christian Philosophy', despite the fact that St Thomas never called it by that name; see Garcia, 'Does Philosophy Tolerate Christening?', in *Philosophy of Religion*, ed. by Jeremiah Hackett and Jerald Vallulis, p. 38.

¹¹ This is further explored in chapter 3.

originated from a belief that the source of all knowledge (*scientia*) was God, and hence both the Book of Grace and the Book of Nature were intimately related, being inspired by the Holy Spirit.

Chapter 1: Scholarship on J.B. Van Helmont

1.1. Introduction

An overview of scholarly work on Van Helmont shows that it has been drawn almost exclusively from the field of history of science, particularly biology, medicine and chemistry. Consequently, most contributions have been intent on illuminating some aspect of Van Helmont's approach to science or his unclear standing in respect to the paradigm of the Scientific Revolution. However, in the past few decades the positivistic tone of the history of science has diminished, leaving room for more nuanced and historically sensitive approaches to the work of Van Helmont. This is also due to the fact that the grand narrative of the Scientific Revolution has itself come under question, even though it has by no means gone away.¹²

For the purpose of this literature review, I have focussed on those post-1900 works that have made a significant contribution to the understanding of Van Helmont's work. Particular attention has been paid to monographs, and in particular the landmark book of Walter Pagel, *Joan Baptista Van Helmont: Reformer of Science and Medicine* (1982). My main criterion of selection has been to identify those scholarly works that have enlarged our comprehension of the substance of the Helmontian opus. Hence I have dropped, in the interest of scope and space, the typical encyclopaedia entry on Van Helmont, with the exception of the fundamental one of J. R. Partington. I have also omitted those works where discussion of Van Helmont had a too narrow a focus; however, I have touched on such specific contributions elsewhere in the body of my analysis, where the scope of the study granted it.

¹² For a discussion of the Scientific Revolution and the questioning of the paradigm, see *Rethinking the Scientific Revolution*, ed. by Margaret Osler (Cambridge: Cambridge University Press, 2000), particularly the pro- argument of Richard S. Westfall, 'The Scientific Revolution Reasserted' (pp. 41-59) and the counter-argument of Betty Jo T. Dobbs, 'Newton as Final Cause and First Mover' (pp. 25-41). The ambiguity of modern scholars in relationship with the grand narrative is well summed up by Steven Shapin who begins his aptly titled book *The Scientific Revolution* (Chicago, IL: University of Chicago Press, 1996), p. 1 with the affirmation: 'There was no such thing as the Scientific Revolution, and this is a book about it.'

Before proceeding with the analysis, it is important to acknowledge that the beginnings of modern scholarship on Van Helmont are intimately tied with the nationalist concerns of Belgian intellectuals in the second part of the nineteenth century. A number of distinguished Belgian scholars were involved in the attempt to revive Van Helmont for the modern world. Their most important contributions were to carry out detailed research into the life of Van Helmont and to publish some of his manuscripts resting in the Archives of the Archbishopric of Mechelen (Malines).¹³

1.2. Classical History of Science Views of Van Helmont (c. 1900–1970)

The classical history of science approach was positivistic, taking modern science as the standard of truth and judging previous ideas and figures in comparison to it. Invariably, the same historical characters emerged as heroes (in the seventeenth century chiefly Galileo, Descartes, Newton and Boyle), while others had to be content with being second or third tier ‘scientists’, if not cast out as ‘pseudo-scientists’, ‘quacks’, ‘fanatics’, ‘fools’ or worse.¹⁴ Few in the seventeenth century were more suspect than the Paracelsians, whose ideas of natural philosophy appeared strange or dubious in comparison with modern science.

Amongst the suspect Paracelsian followers, however, Van Helmont usually occupied an enviable position, since his ideas were deemed less ‘occult’ than those of others. As James R. Partington observed in his painstaking survey of the history of medicine and science, references to Van Helmont between 1710 and 1950 tended to be positive, although rarely enthusiastic.¹⁵ Of course, Van Helmont’s ideas could not match those of the accepted heroes of the Scientific Revolution, but when contrasted with Paracelsus the Flemish thinker always emerged as the more ‘scientific’ man. Thus the chief editor of Van Helmont’s unpublished works, Corneille Broeckx, affirmed that

¹³ Corneille Broeckx, ‘Notice sur le manuscrit Causa J. B. Helmontii, déposé aux archives archiépiscopales de Malines,’ *Annales de l’Académie d’archéologie de Belgique*, 9 (1852), 277-327 & 341-367 and subsequent publications; Henri Masson, ‘Essai sur la vie et les ouvrages de Jean-Baptiste van Helmont,’ *Revue Trimestrielle*, 17 (1858), 5-33; G. Desmarez, ‘L’État civil de J.-B. Van Helmont,’ *Annales de la société d’archéologie de Bruxelles*, 21 (1907), 107-123, A. J. J. Van de Velde, ‘Helmontiana,’ *Verslagen en mededeelingen der Koninklijke Vlaamsche Academie voor Taalen Letterkunde*, 1929, 453-476, 715-737, 857-879 & 1932, 109-122.

¹⁴ As an anecdote, the nineteenth-century biographer David Brewster described the alchemical writings found in Newton’s collection as the products of ‘fools’ and ‘knaves’; *Memoirs of the Life, Writings, and Discoveries of Sir Isaac Newton*, 2 vols. (Edinburgh: 1855), II, 374–375.

¹⁵ J.R. Partington, *A History of Chemistry*, 4 vols (London: Macmillan, 1961), II, 209-242 (p. 209).

while ‘the ideas of Paracelsus are a type of delirium, those of Van Helmont announce a profound genius’.¹⁶

Classical historians of science have generally focussed on Van Helmont’s ‘discoveries’, such as his invention of ‘gas’ and his description of various kinds of them.¹⁷ Van Helmont’s analysis of the Spa waters has also drawn praise,¹⁸ as has his research on the urinary calculi in ‘Treatise on the Disease of the Stone’ (‘Tractatus de Lithiasi’).¹⁹ Another discovery he has been applauded for is that of the acidity of the gastric fluid.²⁰ His ideas on ferments were also recorded carefully, due to their link to his theory of digestion and also to their impact on later chemists such as Georg Stahl (1659-1734) or Hermann Boerhaave (1668-1738).²¹ Classical historians of science also tended to pay particular attention to Van Helmont’s experiments and practical laboratory techniques.²² Amongst the experiments most looked into was the so-called ‘willow tree experiment’ which is still being praised as the beginning of experimental plant physiology or the first quantitative experiment in plant nutrition.²³ Since the experiment had its origin in Nicholas of Cusa (1401-1464), there is a debate that is still going on about Van Helmont’s contribution in this respect.²⁴

There were classical scholars who were profoundly enthusiastic about Van Helmont, such as Franz Strunz, who tried to style him as the founding father of quantitative chemistry,²⁵ or James Campbell Brown, who called him ‘a great chemist, undoubtedly the greatest prior to Lavoisier’.²⁶ Similarly, Pagel’s 1944 analysis begins by noting that ‘Johannes Baptista Van Helmont, a figure well known from all text books in the History of Medicine, Chemistry and Biology, is duly praised for his momentous

¹⁶ Corneille Broeckx, *Essai sur l’histoire de la médecine belge avant le XIXe siècle* (Gand: Leonard Hebbelynck, 1837), p. 94.

¹⁷ Partington, *A History of Chemistry*, II, 227-232.

¹⁸ Partington, *A History of Chemistry*, II, 228.

¹⁹ Partington, *A History of Chemistry*, II, 233 remembers Boerhaave’s praise of this treatise.

²⁰ Partington, *A History of Chemistry*, II, 237.

²¹ Partington, *A History of Chemistry*, II, 236.

²² T.S. Patterson, ‘Van Helmont’s Fire and Water Experiments’, *Annals of Science* 1 (1936), 463-464.

²³ Douglas Allchin, ‘Reassessing van Helmont, Reassessing History’, *BioScene: Journal of College Biology Teaching*, 19:2 (1993), 3-5 (p.3); David R. Hershey, ‘Digging Deeper into Helmont’s Famous Willow Tree Experiment’, *American Biology Teacher*, 53 (1991), 458-460 (p. 458).

²⁴ Hebbel E. Hoff, ‘Nicolaus of Cusa, van Helmont and Boyle: The First Experiment of the Renaissance in Quantitative Biology and Medicine’, *Journal of the History of Medicine and Allied Sciences*, 19 (1964), 99-117 (pp. 115-116), H.M. Howe, ‘A Root of van Helmont’s Tree’, *Isis* 56 (1965), 409-419; David R. Hershey, ‘Pseudohistory and Pseudoscience: Corrections to Allchin’s Historical, Conceptual and Educational Claims’, *Science & Education* 15 (2006), 121-125 (p. 123).

²⁵ Franz Strunz, *Johann Baptist Van Helmont (1577-1644)* (Leipzig: Franz Deuticke, 1907), p. 5.

²⁶ James Campbell Brown, *History of Chemistry* (London: J. & A. Churchill, 1913), p. 202.

discoveries' and proceeds to show the numerous contributions that the Flemish philosopher made to modern science.²⁷

Other historians of science were much more restrained. Perhaps the most famous negative comment belongs to Herbert Butterfield in his influential work *The Origins of Modern Science, 1300 -1800*: in his opinion, Van Helmont

made one or two significant chemical discoveries, but these are buried in so much fancifulness [...] that even twentieth-century commentators on Van Helmont are fabulous creatures themselves, and the strangest things in Bacon seem rationalistic and modern in comparison.²⁸

Perhaps the most commendable contributions were what might be termed the 'non-judgmental' analyses. One of the best examples is Partington's entry on Van Helmont in the second volume of his voluminous *A History of Chemistry*. Partington praised Van Helmont as a precursor of scientific chemistry,²⁹ discussing in detail his ideas on the elements and principles, and carrying out an in-depth analysis of his experiments. By comparison, Van Helmont's anthropological, mystical and theological ideas were either ignored or quickly passed over. Partington mentions Van Helmont's idea of the mind (*mens*) as being the ruler of the body and the Archeus before the Fall, later being estranged from it and replaced by *anima sensitiva*, but this is only to clarify the term of Archeus, which is much more interesting to him as a 'peculiar form of vitalism'.³⁰ There is no attempt to tackle Van Helmont's religious writings, although Partington repeats the historian Heinrich Haeser's opinion that 'he was a good Catholic and his main ideal was the unification of knowledge of God and nature', without going much further into it.³¹

Partington's Whiggish scholarly approach is to quote different passages, selecting the ones that resemble modern scientific practice. Apparently objective, this type of analysis can be slightly misleading, because value judgments are still present in the selection of material. In Partington's case, his key purpose is that of ascertaining Van Helmont's position in the development of the chemical science.

²⁷ Walter Pagel, 'Some Religious and Philosophical Aspects of Van Helmont's Science and Medicine', *Supplements to the Bulletin of the History of Medicine* 2 (Baltimore, MA: Johns Hopkins Press, 1944), pp. v-vi.

²⁸ Herbert Butterfield, *The Origins of Modern Science, 1500-1800* (New York, NY: Macmillan, 1951), p. 98.

²⁹ Partington, *A History of Chemistry*, II, 220; see also his 'Joan Baptista Van Helmont', *Annals of Science*, 1:4 (1936), 359-384 (p. 384).

³⁰ Partington, *A History of Chemistry*, II, 234-235. For the problematic nature of terming Van Helmont's ideas 'vitalistic' see the Conclusion to this chapter.

³¹ Partington, *A History of Chemistry*, II, 212.

1.3. Paul Nève de Mévergnies, *Jean Baptiste Van Helmont, Philosophe par le Feu* (1935)

At the beginning of the twentieth century, an alternative strand of scholarship outside classical history of science sought to claim Van Helmont as a ‘mystic’ and ‘alchemist’. In 1908, Friedrich Giesecke wrote a doctoral dissertation called *Die Mystik Johann Baptist Van Helmonts (1577-1644)* which purported to show that the Flemish philosopher was a mystical ‘prophet and a martyr’ of the Christian faith.³² In 1922, H. Stanley Redgrove and I.M.L. Redgrove published a small work called *Joannes Baptista Van Helmont, Alchemist, Physician and Philosopher*, which insisted on Van Helmont as a transmutational alchemist (*chrysopoeian*) and affirmed that the Flemish writer was ‘not only a chemist and physician, he was also a philosopher and mystic – in the widest sense of the term, a man of wisdom’.³³

This little-known work by Stanley Redgrove inspired a much more in-depth monograph by a scholar from the University of Liège, Paul Nève de Mévergnies, who followed in Redgrove’s footsteps to show that Van Helmont was a *chrysopoeian* ‘adept’. Mévergnies rejected standard readings of Van Helmont as an exponent of early science and resisted attempts to associate Van Helmont with Francis Bacon (1561-1626), René Descartes (1596-1650) or Johannes Kepler (1571-1630) as a precursor of modern thought.³⁴ Nève de Mévergnies maintained that Van Helmont was an ‘adept of Hermetical philosophy’, defining ‘Hermetism’ as a form of occultism.³⁵ Mévergnies further explained that occultism was ‘a spiritual attitude adopted by those who cultivate and those that profess a secret doctrine, which can only be accessed by a mysterious initiation’.³⁶ This rather vague definition is not, unfortunately, accompanied by one that clarifies what Mévergnies considered ‘Hermetic philosophy’ to be, and how it fits within this larger framework of occultism.

In fact, a close analysis of Mévergnies’s work reveals that his concept of ‘Hermeticism’ and ‘Hermetic philosophy’ is drawn on the outdated theories of eighteenth-century French historians, particularly Nicolas Lenglet du Fresnoy (1674-

³² Friedrich Giesecke, *Die Mystik Johann Baptist Van Helmonts* (Leitmeritz: Pickert, 1908), p. 77.

³³ H. Stanley Redgrove & I.M.L. Redgrove, *Joannes Baptista Van Helmont, Alchemist, Physician and Philosopher* (London: Rider, 1922), pp. 10-11.

³⁴ Paul Nève de Mévergnies, *Jean-Baptiste Van Helmont, Philosophe par le Feu* (Liège: E. Droz, 1935), pp. 30-31; p. 32, n.10.

³⁵ Mévergnies, *Jean-Baptiste Van Helmont*, p. 5

³⁶ Mévergnies, *Jean-Baptiste Van Helmont*, p. 37.

1755). In 1742, Fresnoy had published a *History of Hermetic Philosophy (Histoire de la Philosophie Hermetique)*, where he had transcribed the *prisca sapientia* mythology of contemporary alchemy.³⁷ This *prisca sapientia*, which was focussed on *chrysopoeia*, traced itself back to Noah and Hermes Trismegistus.³⁸ Mévergnies's own chapter on the history of the Hermetic philosophy closely resembles Fresnoy's book; moreover, his indebtedness to Fresnoy's theories is revealed by frequent citations to this author elsewhere in the work.³⁹

To substantiate his argument, Mévergnies focuses on the term 'philosopher by fire' (*philosophus per ignem*) which Van Helmont used in reference to himself. Mévergnies argues that this expression demonstrates Van Helmont's allegiance to Hermetic philosophy, and to support this he observes that the added *Clavis* to the 1707 edition of Van Helmont's *Opera omnia* contains a definition of the word 'Adept' as 'those Philosophers by fire, who promote the Universal Wisdom philosophy, e.g. the transmutation of metals'.⁴⁰ Based on this later testimony, Mévergnies affirms that Van Helmont viewed himself as a *chrysopoeian* alchemist.⁴¹ To further support his evidence, the scholar also makes reference to three treatises in *Ortus medicinae* ('Tree of Life', 'Eternal Life' and 'The Thesis is Demonstrated'), where Van Helmont confesses to have used the powder of transmutation to project mercury to gold.⁴² However, Mévergnies fails to address the issue that Van Helmont never claimed to have prepared the powder of projection himself, stating that it had been given to him by a mysterious stranger.⁴³ Mévergnies brings further evidence, including Van Helmont's belief in spontaneous generation, which he interprets as 'transmutation',⁴⁴ the employment offers made by Emperor Rudolf II (1552-1612) and the Archbishop of Liège, the naming of Van Helmont's son (Francis Mercury) as 'Mercurius',⁴⁵ and Van Helmont's belief in the messianic figure of Elias Artista.⁴⁶

³⁷ See my discussion of *prisca theologia* and *prisca sapientia* in chapter 3.

³⁸ Nicolas Lenglet du Fresnoy, *Histoire de la Philosophie Hermetique* (Paris, 1742), pp. 5-7, 9-17.

³⁹ Mévergnies, *Jean-Baptiste Van Helmont*, pp. 92, 94.

⁴⁰ Mévergnies, *Jean-Baptiste Van Helmont*, p. 40. 'Adept' is another term Mévergnies uses freely without explaining the meaning.

⁴¹ Mévergnies, *Jean-Baptiste Van Helmont*, p. 41.

⁴² Mévergnies, *Jean-Baptiste Van Helmont*, pp. 41-43.

⁴³ Mévergnies, *Jean-Baptiste Van Helmont*, p. 42, n.10 seems to question the account of Butler because it did not address projection but therapy (*chemiatria*), but adds that 'we should not lose sight of the fact that the philosophical stone could [...] re-establish health and prolong life, as well as transmute the metals'.

⁴⁴ Mévergnies, *Jean-Baptiste Van Helmont*, pp. 74-77. This argument in fact is weak; as Pagel pointed out, there was nothing special about Van Helmont's belief in spontaneous generation, as this idea had also been supported by Aristotle and Harvey; Pagel, 'Some Religious and Philosophical Aspects', p. vii-viii, n.3.

⁴⁵ Mévergnies, *Jean-Baptiste Van Helmont*, pp. 80-83.

⁴⁶ Mévergnies, *Jean-Baptiste Van Helmont*, pp. 85-87.

Mévergnies' assessment of Van Helmont is intriguing in that it proposes an alternative reading of the Flemish philosopher as a *chrysopoeian* alchemist.⁴⁷ His argument, however, is marred by several problems. The main one is his failure to define the Hermetic school, Hermetism or Hermetic philosophy, borrowing without question outdated tenets of the eighteenth century.⁴⁸ Secondly, Mévergnies does not exactly clarify the relationship between *chrysopoeia* and the medical *chemiatria*.⁴⁹ Also questionable is his unqualified acceptance of the 1821 account of Colonel Poultier D'Elmotte who affirmed that Van Helmont was a Rosicrucian without adducing any evidence in support of his statement.⁵⁰ Finally, Mévergnies also argues that Van Helmont's frequent reference to the Bible and Christian faith was only because they gave him 'a feeling of security' and distanced him from heresy.⁵¹ Such an idea fails to take into account Van Helmont's pervasive use of religion in his works, as Pagel subsequently pointed out.⁵²

On the other hand, Mévergnies' work contains the most comprehensive detail about Van Helmont's life that can be found in any published book to date. It also includes a very closely researched review of what he calls 'the Helmontian Restauration', meaning the attempts, particularly in Belgium and Germany, of uncovering the figure of Van Helmont in the period 1800-1930.⁵³ Mévergnies also pays attention to aspects of his work that have generally been shunned by historians of science, such as Van Helmont's doctrine of prolongation of life.⁵⁴ Finally, his argument raises important questions as to the intentions and scope of Van Helmont's work, and his attitude toward *chrysopoeia*. Hence it is rather regrettable that Mévergnies' book has not been addressed by later scholars, except for a critical footnote by Walter Pagel in 1944.⁵⁵ As a historian of medicine it is unsurprising that Pagel takes issue with Mévergnies' work for attempting to isolate Van Helmont from the history of science and criticises the Belgian writer's framework of 'Hermeticism' as being un-

⁴⁷ I am discussing this aspect of Van Helmont's thought in chapter 4.3. On Man.

⁴⁸ Take for instance, this affirmation: 'only the Hermetical philosophy was revealed capable of realising this magnificent ideal [of long life]'; *Jean-Baptiste Van Helmont*, p.194.

⁴⁹ To his credit, Mévergnies affirmed that 'the qualification of spagyric equates in fact with that of Hermetical', p. 89.

⁵⁰ Mévergnies, *Jean-Baptiste Van Helmont*, pp. 106-107; again to his credit, several other authors like Vande Velde and Strunz repeated d'Elmotte's assertion without checking it.

⁵¹ Mévergnies, *Jean-Baptiste Van Helmont*, pp. 175-176.

⁵² Pagel, 'Some Religious and Philosophical Aspects', p. 8, n.3.

⁵³ Mévergnies, *Jean-Baptiste Van Helmont*, pp. 7-35.

⁵⁴ Mévergnies, *Jean-Baptiste Van Helmont*, pp. 187-205.

⁵⁵ Pagel, 'Some Religious and Philosophical Aspects', pp. vii-viii, n.3.

philosophical.⁵⁶ Inadvertently, Pagel falls into the same trap as Mévergnies by failing to clarify what he means by the term ‘Hermeticism’; to the outside reader, it is hard to ascertain whether the two are even talking about the same concept.

1.4. Walter Pagel, ‘Some Religious and Philosophical Aspects of Van Helmont’s Science and Medicine’ (1944)

Walter Pagel’s short 1944 monograph belongs to the field of history of science and medicine, but distinguishes itself from classical positivist accounts. In fact, Pagel criticises the traditional approach of the history of science, which assumes that Van Helmont’s treatises

...make dull reading as they are mixed with theosophical speculations, the account of dreams and visions. The usual method is to extricate from these the scientific detail which is valid today or should be regarded as stepping-stones for scientific discovery. The rest is ‘excused’ with the spirit of the age. It was customary in his day to mingle matters scientific and philosophical.⁵⁷

Distancing himself from such accounts, Pagel wishes to ‘investigate the interdependence and mutual motivation of van Helmont’s religious-philosophical and scientific side’.⁵⁸ His purpose is to show that ‘religious life may [...] actively support scientific research’,⁵⁹ hence that religious concerns can have a positive, rather than negative or neutral impact on science.⁶⁰ This is a laudable intention, except that Pagel’s analysis still shows signs of belonging to a classical, anachronistic history of science. Like all other classical scholars, Pagel continues to be focussed on Van Helmont’s scientific contribution to the modern world. Nevertheless, he is willing to explore adjacent and previously neglected factors (such as religion and philosophy) that contributed to the Helmontian ‘scientific outlook’.

⁵⁶ Pagel, ‘Some Religious and Philosophical Aspects’, p. vii: ‘I agree with Nève de Mévergnies that it is necessary to trace the philosophical link which unites the parts of van Helmont’s work to one whole and to study its significance in the History of Philosophy. To find this in “Hermeticism”, however, is tantamount to deny any such significance’.

⁵⁷ Pagel, ‘Some Religious and Philosophical Aspects’, p. vi.

⁵⁸ Pagel, ‘Some Religious and Philosophical Aspects’, p. ix.

⁵⁹ Pagel, ‘Some Religious and Philosophical Aspects’, p.11.

⁶⁰ This seems to have been a particular interest in Pagel’s Pre-Second World War II work; see also his ‘Religious Motives in the Medical Biology of the XVIIth Century’, *Bulletin of the History of Medicine* 3 (1935), 107-111.

Pagel considers religion an extrinsic factor to science, clearly demarcating between the two. Take for instance the statement below:

Van Helmont's Docta Ignorantia, however, concerns only the Deity and what emanates from him 'immediate et fontaliter'. Not unlike Nicolaus Cusanus who introduced the notion of Docta Ignorantia in the same sense in which it was practised by van Helmont, the latter recommends and undertakes scientific research himself, on things accessible to human investigation, on concrete objects which are comparable and measurable.⁶¹

Such a statement suggests that Van Helmont was somehow capable of separating the irrational, religious activities from the rational, scientific ones. Needless to say, this view does not do sufficient justice to the importance of religion in Van Helmont's enterprise, as the Christian concerns permeated his entire worldview. As will further be shown, his project of Christian Philosophy in itself reveals that Van Helmont did not see a categorical separation between the realms of religion and natural philosophy.

In addition, Pagel fails to make a convincing argument in respect to Van Helmont's choice of alchemy (or, in Pagel's term, chemistry) as a profession. Pagel seems to believe that alchemy just happened to be 'Van Helmont's method of choice'; to him there is nothing revelatory about Van Helmont's alchemical pursuit.⁶² Indeed, Pagel fails to identify any complementarity between alchemy and religion in Van Helmont's thought. In his critical commentary to Nève de Mévergnies's book, Pagel makes his assumptions overt when he affirms that 'there is no proof that Alchemy was actually the basis of van Helmont's Cosmology, Metaphysics and Theology. The converse could be assumed with equal right and his "Hermeticism" derived from these'.⁶³ Indeed, this is the gist of Pagel's argument: religious and philosophical thought came prior to alchemy, and alchemy or chemistry was simply the application of religious ideals to practice. This attitude is what Pagel terms 'Religious Pragmatism'.⁶⁴

Although Pagel's argument is clearly articulated, it does not adduce any proof for his contention that the relationship between Van Helmont's religion and natural philosophy was one of simple cause and effect. It is true that for Van Helmont Christian

⁶¹ Pagel, 'Some Religious and Philosophical Aspects', p. 10.

⁶² Pagel, 'Some Religious and Philosophical Aspects', p. 11.

⁶³ Pagel, 'Some Religious and Philosophical Aspects', p. vii.

⁶⁴ Pagel, 'Some Religious and Philosophical Aspects', p. 12.

charity was an important concept which coloured his pursuit of medicine.⁶⁵ However, Pagel's argument does not answer the important question of why Van Helmont chose alchemy of all other intellectual pursuits; furthermore, it does not completely address the issue of why religion appears so deeply embedded with natural philosophical rhetoric in Van Helmont as opposed to other, equally 'Christian' writers. While Christian piety was a common concern of the age, the juxtaposition of religious and scientific discourse was not necessarily so; it was precisely on this point that Marin Mersenne (1588-1648) reproached the alchemists.⁶⁶ In fact, it is one of the contentions of my dissertation that postulating a simple cause-and-effect relationship between religion and alchemical philosophy does not necessarily do justice to the complexity of their rapport in Paracelsian thought.

Moreover, despite the introductory rhetoric on the 'religious motive' behind Van Helmont's work, Pagel makes no attempt to address the issue of Van Helmont's Christian thought at all. In fact, it appears remarkably clear that for Pagel the sphere of religious impact on science is rather restricted; it does not seem to go beyond 'religious pragmatism'. Pagel moves quickly onto issues concerning the philosophy of science, where his competency is evidently much greater and his points much more substantiated. Yet even in this case, and true to his introductory words, he sees no link between alchemy and philosophy and addresses Van Helmont's ideas of the Archeus and gas only in respect to Aristotelian precedents and posthumous impact (such as on Stahl and Leibniz).⁶⁷

1.5. Allen G. Debus, *The Chemical Philosophy* (1977, reprinted 2002)

Between 1945 and 1975, the interest in Van Helmont seems to have decreased. The main contribution came from Walter Pagel, who continued to publish several articles meant to clarify Van Helmont's contribution to the history of medicine and biology, such as 'J.B. Van Helmont, *De Tempore*, and Biological Time' (1949), 'J.B. Van Helmont's Reformation of the Galenic Doctrine of Digestion – and Paracelsus' (1955), 'Van Helmont's Ideas on Gastric Digestion and the Gastric Acid' (1956), 'The Position of Harvey and Van Helmont in the History of European Thought: To

⁶⁵ See chapter 4.3. On Man.

⁶⁶ Armand Beaulieu, 'L'attitude nuancée de Mersenne envers la chymie', in *Alchimie et Philosophie à la Renaissance: Actes du Colloque International de Tours (4-7 Décembre 1991)*, ed. by Jean-Claude Margolin and Sylvain Matton (Paris: Vrin, 1993), pp. 396-403 (pp. 396, 399, 401).

⁶⁷ Pagel, 'Some Religious and Philosophical Aspects', pp. 24-27.

Commemorate H.E. Sigerist's Essay on Harvey (1928)' (1958), 'The Wild Spirit (gas) of Van Helmont (1579-1644) and Paracelsus' (1962), 'Van Helmont's Concept of Disease: To be or not to be? The Influence of Paracelsus' (1972), and 'The Spectre of J.B. Van Helmont and the Idea of Continuity in the History of Chemistry' (1973).⁶⁸ Since most of the ideas contained therein are covered in Pagel's summa of his studies, his monograph *Joan Baptista Van Helmont* (1982), I will analyse them in the extended commentary to his landmark book.

Apart from Pagel, there was limited interest given by other scholars to Van Helmont's work. The only exception was the extended discussion over the sources of the famous willow tree experiment, with Hebbel E. Hoff drawing attention to its background in Nicholas Cusanus and Herbert Howe going further to show that it originated in late antiquity.⁶⁹

Allen G. Debus's ground-breaking *The Chemical Philosophy: Paracelsian Science and Medicine in the 16th and 17th Centuries* (1977) arguably marked the beginning of new interest in Van Helmont's work.⁷⁰ *The Chemical Philosophy*, the first ambitious survey of the Paracelsian movement until the end of the seventeenth century, dedicated its entire chapter five to an appraisal of Helmontian 'chemical philosophy'. While Debus makes an important contribution in the integration of Van Helmont's thought within the larger perspective of Paracelsianism, his approach is unfortunately coloured by his concern with the impact of Van Helmont's ideas on future scientific chemistry.

In his analysis, Debus proves receptive to Van Helmont's religious attitude, drawing attention to Van Helmont's emphasis on the 'theological implication of the study of motion'⁷¹ and to the foundation of his two-element system on Genesis.⁷² He later states that

⁶⁸ Walter Pagel, 'J. B. Van Helmont, De Tempore, and Biological Time', *Osiris*, 8 (1949), 346-417, 'J. B. Van Helmont's Reformation of the Galenic Doctrine of Digestion - and Paracelsus,' *Bulletin of the History of Medicine*, 29 (1955), 563-568, 'Van Helmont's Ideas on Gastric Digestion and the Gastric Acid', *Bulletin of the History of Medicine*, 30 (1956), 524-536, 'The Position of Harvey and Van Helmont in the History of European Thought: To Commemorate H. E. Sigerist's Essay on Harvey (1928),' *Journal of the History of Medicine and Allied Sciences*, 13 (1958), 186-199, 'The 'Wild Spirit' (gas) of Van Helmont (1579-1644) and Paracelsus,' *Ambix*, 10 (1962), 1-13, 'Van Helmont's Concept of Disease: To Be or not to Be? The Influence of Paracelsus,' *Bulletin of the History of Medicine*, 46 (1972), 419-454, 'The Spectre of J. B. Van Helmont and the Idea of Continuity in the History of Chemistry,' in *Changing Perspectives in the History of Science: Essays Dedicated to Joseph Needham*, ed. by Mikulas Teich and Robert Young (London: Heinemann, 1973), pp. 100-109.

⁶⁹ Hoff, 'Nicolaus of Cusa, Van Helmont and Boyle', 99-117, Howe, 'A Root of van Helmont's Tree', 408-419.

⁷⁰ Debus, *The Chemical Philosophy*, pp. 295-381.

⁷¹ Debus, *The Chemical Philosophy*, p. 314.

⁷² Debus, *The Chemical Philosophy*, p. 318.

Theological considerations are in evidence everywhere, and if he believed that it was the duty of naturalists to study nature, he was equally convinced that this study was intimately connected with an understanding of the Creator.⁷³

Debus further claims that Van Helmont hoped to introduce ‘a new vitalistic philosophy based upon theological and natural truths’.⁷⁴ Despite such general statements, Debus displays the same reluctance as Pagel to enter into a serious discussion of Van Helmont’s theological and anthropological views. Instead, he concentrates on explaining Van Helmont’s concepts of *blas* and the *Archeus*,⁷⁵ repeats the traditional view of Van Helmont as a rejecter of the macrocosm-microcosm analogy and of the Paracelsian principles,⁷⁶ and then launches into a characterisation of his medical practice.⁷⁷ Perhaps most surprising is Debus’s acceptance of Van Helmont’s interest in transmutational alchemy, which is an aspect that Pagel was eager to minimise or avoid in his analyses.⁷⁸

Debus’s characterisation of Van Helmont’s ideas are mostly presented in a ‘non-judgmental’ style, by having recourse to quotations and paraphrases. He concludes that ‘Van Helmont may still be safely placed in the Paracelsian tradition’ and that ‘he may rightly be termed the most important chemical philosopher of the first half of the seventeenth century’.⁷⁹ Later he adds that

though, under certain circumstances, van Helmont could still argue for the proper reading of the stars and could give a circumstantial account of a transmutation or write in awe of alchemical adepts, he nevertheless had broken an important chain which held many to an older worldview.⁸⁰

Hence Debus, despite his sympathy and willingness to explore the ‘unscientific’ facets of Van Helmont, still believes that the Flemish philosopher ‘liberated’ chemists from the older worldview.

⁷³ Debus, *The Chemical Philosophy*, p. 317.

⁷⁴ Debus, *The Chemical Philosophy*, p. 376.

⁷⁵ Debus, *The Chemical Philosophy*, pp. 315-317, 349.

⁷⁶ Debus, *The Chemical Philosophy*, pp. 315, 320-321.

⁷⁷ Debus, *The Chemical Philosophy*, pp. 357-376.

⁷⁸ Debus, *The Chemical Philosophy*, pp. 322-327.

⁷⁹ Debus, *The Chemical Philosophy*, p. 376.

⁸⁰ Debus, *The Chemical Philosophy*, p. 377.

1.6. *Walter Pagel, Joan Baptista Van Helmont, Reformer of Science and Medicine (1982)*

In 1982, just a year before his death, Walter Pagel published a long-overdue monograph on Van Helmont. This work is still recognised today as the definitive work on Van Helmont, and contributed to renewed interest in the ideas of the Flemish philosopher. For this reason, I will pay comparatively more attention to this work than others I am addressing.

Pagel's work is divided into four main parts: the first briefly reviews Van Helmont's life and interest in the reformation of knowledge, the second and third focus on his natural philosophical and biological ideas, and the latter on his medical contribution. These chapters sum up Pagel's understanding of Van Helmont's work as formulated in his previous writings. As before, Pagel's overall intention is to emphasise Van Helmont's contributions to modern medicine and science, including his concept of gas and absolute time, the promotion of 'vitalistic' principles, the rejection of Galenic concepts and practices and the modification of Paracelsian doctrine. In the last chapter, 'Final Assessment', Pagel's thesis is finally affirmed overtly:

Van Helmont belongs to the group of illustrious pioneers and brilliant innovators of the early seventeenth century ... he has a share in the peripeteia which brought about the turning-away from the ancient masters, from unreal philosophy and imagination toward reality and true knowledge.⁸¹

This straightforward statement, taken out of context, might make the reader think that she is perusing a classical history of science work, complete with positivistic biases and assumptions about what is 'real' and 'true'. However, Pagel qualifies his statement that Van Helmont's case is a proof that 'this transition was far from smooth and simple, if it took place at all'.⁸² He further adds that 'Van Helmont's image as a key figure in scientific and medical history is decidedly complex and difficult to accommodate in a simple formula'⁸³ and concludes that his work is designed to help the reader 'to obtain and to enjoy insight into the true character of the cradle of modern science'.⁸⁴

⁸¹ Pagel, *Joan Baptista Van Helmont* (Cambridge: Cambridge University Press, 1982), p.203.

⁸² Pagel, *Joan Baptista Van Helmont*, p. 203.

⁸³ Pagel, *Joan Baptista Van Helmont*, p. 205

⁸⁴ Pagel, *Joan Baptista Van Helmont*, p. 208.

Such an agenda for the book explains Pagel's glaring lack of interest in Van Helmont's alchemy. Indeed, Pagel is keen to refer to the Flemish philosopher as practising 'chemistry' rather than 'alchemy'.⁸⁵ It must be added that Pagel confines the term 'alchemy' to *chrysopoeia*, with the rest (including natural philosophical speculation) being incongruently and anachronistically placed under the modern 'chemistry' denomination. Such categorisation betrays Pagel's ultimate origin in the school of classical history of science.⁸⁶

The reason for Pagel's rejection of alchemy in Van Helmont's thought becomes transparent in his final chapter, where he is keen to point out that Van Helmont should not be 'dismissible as an alchemist on the account [of his belief in transmutation]'.⁸⁷ Indeed, he later maintains, 'his work was rejected by some because as a whole as well as in detail his writings betray a belief in alchemical transmutation by virtue of the philosophers' stone.'⁸⁸ To this he adds rather forcefully that

...the conclusion that this in itself disqualifies and deprives Van Helmont of his high place in the history of science and medicine is simply absurd; it is due to crass ignorance of this very history, the development of these branches of learning and artful practice.⁸⁹

Pagel seems to address here hardliners committed to the classic history of science; also, I would argue, he is repeating his previous criticism of Nève de Mévergnies' work. Pagel is clearly worried that admitting Van Helmont's transmutational interests would somehow undermine his stature for the history of science, and in virtue of this he is willing to minimise those practices or ideas he suspects to be akin to 'alchemy'. Sometimes such worries lead Pagel to make rather untenable statements. For instance, Van Helmont's belief in alchemical transmutation is dismissed as 'a kind of messianic yearning which brought him to the belief in the philosophers' stone when he felt death approaching after a life of frustration and bitterness'.⁹⁰ In another place, Pagel is prepared to 'excuse' his ideas on transmutation

⁸⁵ Pagel, *Joan Baptista Van Helmont*, p. 20: 'It was through perfect knowledge (*scientia adepta*) that the "bolts" behind which truth "had hidden itself from him" were removed, by virtue of the "art of fire", that is, chemistry.'

⁸⁶ Pagel, *Joan Baptista Van Helmont*, p. 117 states that 'Van Helmont speaks everywhere as a chemist rather than in the secret jargon of the alchemists'. This view can be found in many classical historians of science, including Marie Boas Hall, 'The Establishment of the Mechanical Philosophy', *Osiris*, 10 (1952), 412-541 and A. Rupert Hall, *The Scientific Revolution, 1500-1800: The Formation of a Modern Scientific Attitude* (Boston: Beacon Press, 1962), p. 310.

⁸⁷ Pagel, *Joan Baptista Van Helmont*, p. 201.

⁸⁸ Pagel, *Joan Baptista Van Helmont*, p. 204.

⁸⁹ Pagel, *Joan Baptista Van Helmont*, p. 204.

⁹⁰ Pagel, *Joan Baptista Van Helmont*, p. 117.

as a ‘further evidence of the prerogative of the spirit over matter’, hence drawing them into his overall argument on Van Helmont’s vitalism.⁹¹

As I have already pointed out, Pagel’s reservations about alchemy were consistent throughout his life-long work; however, more curious is the reduced importance given to religion in this latter work compared to his 1944 short monograph where it figured prominently. Pagel’s 1944 insistence on the religious motives of Van Helmont’s work may have been lacking in detail and analysis, but it was an intriguing and revolutionary concept in the context of classical history of science. It is rather disappointing to find that this argument becomes less prominent in this central monograph.

It is true that, in line with his 1944 insight, Pagel formally affirms that ‘the work cannot be understood without taking Van Helmont’s whole religious philosophy and biological and medical work into consideration.’⁹² He further rightly states that ‘In Van Helmont’s concept of time, religious and naturalistic motives are as inseparable as in all the other fields of natural philosophy to which he dedicated his endeavour.’⁹³ Yet the surprising element in these statements is that, forty years after he first made his plea on behalf of the religious motives in Van Helmont’s work, Pagel feels the need to repeat this argument in a rather apologetic tone.⁹⁴ Thus, Pagel seems to be willing to seriously entertain the idea that ‘the biological insight of *De tempore* may seem to be overshadowed at least in bulk by its religious concerns’ before rejecting such a presumption.⁹⁵

Moreover, Pagel does not go any further into his religious analysis than he had in his 1944 work. Instead, Pagel considers that Van Helmont’s treatises on long life (which contain the bulk of his theological speculation) ‘were products of Van Helmont’s old age’ and that ‘the pessimistic trend which pervades his work as a whole consequently here receives a still more pointed expression and so does its grand theme: original sin’.⁹⁶ Such conclusions can be easily refuted by referring to Van Helmont’s pre-*Ortus* writings, which Pagel was never keen to address. If he had done so, his research would have shown that such concerns as Original Sin and transmutational

⁹¹ Pagel, *Joan Baptista Van Helmont*, p. 118.

⁹² Pagel, *Joan Baptista Van Helmont*, pp. 114-115.

⁹³ Pagel, *Joan Baptista Van Helmont*, pp. 115.

⁹⁴ The apologetic approach here is only surpassed by the fact that he feels he needs to motivate the study of Van Helmont in his final chapter.

⁹⁵ Pagel, *Joan Baptista Van Helmont*, p. 114.

⁹⁶ Pagel, *Joan Baptista Van Helmont*, p. 115.

alchemy were not a late product of Van Helmont's career, but occurred much earlier on and constituted an important side of his thought.⁹⁷

By comparison, the bulk of Pagel's monograph is dedicated to his portrayal of Van Helmont as a 'vitalist' thinker. While the gist of his argument is not stated from the beginning, we encounter later statements such as 'Van Helmont's theoretical biology can be designated as vitalist monism'.⁹⁸ Pagel also asserts on several occasions that Van Helmont's thought was expressed along vitalist lines.⁹⁹ Pagel believes that Van Helmont's rejection of Aristotle is only apparent,¹⁰⁰ and that his ideas can be closely linked to the Aristotelianism of William Harvey (1578-1657) and Francis Glisson (1599-1677).¹⁰¹ It appears that for Pagel the only 'real' criticisms of Aristotle are Van Helmont's rejection of material and external causes such as heat, the rejection of cure by contraries, and the introduction of a new concept of time.¹⁰² Yet Pagel's attempt to portray Van Helmont as an Aristotelian vitalist is anachronistic.¹⁰³ Van Helmont would not have seen himself as an Aristotelian; in fact his writings were dedicated to removing Aristotelian speculation from natural philosophy. Moreover, the term 'vitalist' would have made little sense to him. From a twentieth-century perspective, Van Helmont may perhaps be catalogued in the vitalist camp, but this is an ahistorical analysis which reminds the reader of the classical history of science.¹⁰⁴

Pagel's interest in vitalism colours his analysis of Van Helmont's thought on matter and form; for instance, he argues that Van Helmont simply replaces the efficient material cause 'heat' with the more spiritual 'archeus' (defined as a 'psychosomatic unit' and 'internal efficient').¹⁰⁵ Although this is true to some extent, such analysis bypasses the important role played by God and his proximate manifestation, light, in

⁹⁷ See Chapters 4.1-4.3 on these issues.

⁹⁸ Pagel, *Joan Baptista Van Helmont*, p. 118.

⁹⁹ Pagel, *Joan Baptista Van Helmont*, pp. 121, 128.

¹⁰⁰ Pagel, *Joan Baptista Van Helmont*, pp. 36-38.

¹⁰¹ Pagel, *Joan Baptista Van Helmont*, p. 42, see also the discussion on pp. 120-124 on 'tissue irritability' with reference to Harvey and Glisson. The forced association between Van Helmont and Glisson has also been criticised by Guido Giglioni, *Immaginazione e malattia: Saggio su Jan Baptista Van Helmont* (Milan: Francoangeli, 2000), p. 43.

¹⁰² Pagel, *Joan Baptista Van Helmont*, pp. 39, 42-46; his analysis of Van Helmont's concept of time is similarly dedicated to making him a precursor of vitalist ideas such as those of Henri Bergson.

¹⁰³ It is possible that Pagel was influenced by the revival of vitalism in early twentieth century and the influential *History and Theory of Vitalism* of Hans Driesch (London: Macmillan, 1914). According to Driesch, Van Helmont's theories were an inferior version of those of Aristotle's: 'This [Van Helmont's idea of the Archeus] is really and unmistakably the Aristotelian teaching – only less profound', p. 25. Pagel had a better opinion of Van Helmont, but he too thought Van Helmont was a 'closet' Aristotelian vitalist.

¹⁰⁴ See my discussion of 'vitalism' under Conclusions below.

¹⁰⁵ Pagel, *Joan Baptista Van Helmont*, p. 40.

Van Helmont's thought.¹⁰⁶ It is only in the analysis of Van Helmont's view on the elements that Pagel is willing to acknowledge the role paid by Christian thought in the Flemish philosopher's work. Like Debus a few years before, he notes that the concepts of water and air have a Scriptural basis.¹⁰⁷ Further on, he affirms that Van Helmont's belief in water as ultimate matter stems from 'Van Helmont's fundamentalist religious faith', and that his concept of gas betrays 'religious' intentions.¹⁰⁸

Pagel's analysis of specific agents such as gas, ferments, *blas*, odours, *archei*, as well as of Van Helmont's 'ontological' concept of disease,¹⁰⁹ constitutes the strength and bulk of the book and sheds an important light on these little-understood concepts.¹¹⁰ Once more, they reveal Pagel's own interest in vitalism as the fundamental aspect of Van Helmont's thought. So does his analysis of Van Helmont's concept of time, which closely reflects his previously published article on the topic.¹¹¹ In it, Pagel argues that Van Helmont is a precursor of Bergsonian concepts of biological time.¹¹²

Despite its limitations in the appraisal of Van Helmont, Pagel's work must be commended primarily for its instrumental support in putting Van Helmont 'back on the map' of scholarly research. The life-long attention Pagel paid to Van Helmont has effectively rescued his thought from the dusty shelves of classical history of science textbooks and encyclopaedias and re-introduced it into fresh scholarly discussion. Since Pagel's work, more and more scholars have been drawn to the study of Helmontian ideas, the present author not excluded. At the same time, Pagel's approach is outdated and his view of Van Helmont constrained by his interest in proving the Flemish philosopher's contributions to modern science. Pagel's plea at the end of the book, that a historian should not measure a figure 'against present-day standards instead of those of his own period',¹¹³ and that he should take 'the challenge of making himself contemporary to his subject',¹¹⁴ too often remained at the level of ideal rather than practice.

¹⁰⁶ I think it is telling for Pagel's intentions and interests that Van Helmont's elaborate concept of light is given short shrift; they did not fit in the 'vitalistic' paradigm.

¹⁰⁷ Pagel, *Joan Baptista Van Helmont*, p. 50.

¹⁰⁸ Pagel, *Joan Baptista Van Helmont*, p. 61. Again, one is left to wonder what 'fundamentalist' means in Pagel's mind.

¹⁰⁹ Pagel's views of Van Helmont's 'ontological' theory of disease were heavily criticised by Peter H. Niebyl, in 'Sennert, Van Helmont and Medical Ontology', *Bulletin of the History of Medicine*, 45:2 (1971), 114-138 (pp. 115-116).

¹¹⁰ Pagel, *Joan Baptista Van Helmont*, pp. 60-102, 118-140; for disease, see chapter 5, pp. 141-198.

¹¹¹ Pagel, 'J. B. Van Helmont, De Tempore', 346-417.

¹¹² Pagel, *Joan Baptista Van Helmont*, p. 113. Pagel's emphasis on Bergson further points out his interest in the revival of vitalism.

¹¹³ Pagel, *Joan Baptista Van Helmont*, p. 205

¹¹⁴ Pagel, *Joan Baptista Van Helmont*, p. 206.

1.7. Robert Halleux, ‘Helmontiana’ (articles between 1979-2004)

Beginning in 1979, Professor Robert Halleux of the University of Liège published a series of well-documented and enlightening articles on Van Helmont. The first article of note, ‘Helmontiana I’ (1983) analyses the Flemish Paracelsian scene in Van Helmont’s time.¹¹⁵ It also gives a brief synopsis of Van Helmont’s trial, suggesting that his persecution was caused by physicians opposed to Paracelsian medicine rather than by religious figures.¹¹⁶ To this article was added ‘Helmontiana II’ (1987), ‘Theory and Experiment in the Early Writings of Johan Baptist Van Helmont’ (1988), and most recently ‘Le procès d’inquisition du chimiste Jean-Baptiste Van Helmont’, which is a documented summary of his trial, including its background and context, accompanied by a closely researched timeline.¹¹⁷

From these articles, I will focus on Halleux’s most important one, ‘Helmontiana II’ (1987), which concentrates on the little-known manuscript of the *Eisagoge* found in the Archives of the Archbishopric of Mechelen. Halleux emphasises the originality of the Prologue, proceeding to contextualise its dream-vision not only within classical alchemical literature (such as the *Physika kai Mystika* of Pseudo-Democritus) but also contemporaneous accounts of initiatory dreams, such as those of René Descartes.¹¹⁸ Halleux further raises the question of the authenticity of Van Helmont’s dream, and after comparison with other dreams reported in *Ortus medicinae*, comes to the conclusion that it was a real, even provoked, state.¹¹⁹ Finally, Halleux contextualises the dream within an initiatory *prisca theologia* tradition of Paracelsian flavour, without developing the insight.¹²⁰

This article, which throws a brief glance at some important aspects of Van Helmont’s belief system, is arguably the most fascinating contribution Halleux has

¹¹⁵ Robert Halleux, ‘Helmontiana I’, *Academiae analecta* (Brussels: Koninklijke Academie voor Wetenschappen, Letteren en Schone Kunsten van België, 1983), 33-63 (pp. 37-50).

¹¹⁶ Halleux, ‘Helmontiana I’, pp. 56-57.

¹¹⁷ Robert Halleux, ‘Helmontiana II: Le prologue de l’*Eisagoge*, la conversion de Van Helmont au Paracelsisme et les songes de Descartes’, *Academiae Analecta* ((Brussels: Koninklijke Academie voor Wetenschappen, Letteren en Schone Kunsten van België, 1987), 17-36 (pp. 19-25); ‘Theory and Experiment in the Early Writings of Johan Baptist Van Helmont’, in *Theory and Experiment*, ed. Diderick Batens (Dordrecht: Reidel, 1988), pp. 93-101; ‘Le procès d’inquisition du chimiste Jean-Baptiste Van Helmont (1578-1644): les enjeux et les arguments’, *Académie des inscriptions et belles-lettres*, 148:2 (2004), 1059–1086 (pp. 1062-1078); Annex I is found on pp. 1079-1083.

¹¹⁸ Halleux, ‘Helmontiana II’, pp. 25-28, 30-33.

¹¹⁹ Halleux, ‘Helmontiana II’, pp. 28-29.

¹²⁰ Halleux, ‘Helmontiana II’, pp. 34-35.

made to the study of the Flemish philosopher to date. It undoubtedly draws upon a new perspective in the history of ideas introduced by Frances Yates and Allen Debus, as Halleux himself admitted.¹²¹ Halleux connected Van Helmont's dreams with those of Descartes in order to show that 'at the beginning of their career, the two philosophers shared the same background of ideas, representations and the same "hermetising" mentality'.¹²² One cannot help noticing the similarity between Halleux's ideas and those of his predecessor at University of Liège, Paul Nève de Mévergnies. Although Halleux does not explicitly mention Mévergnies in the text, he does quote him once; moreover, the interest in alchemy, the Hermetic tradition, the quasi-Rosicrucian 'college of initiates' and alchemical initiation connects him with Mévergnies' ideas, if not the latter's questionable scholarly approach.¹²³

1.8. Berthold Heinecke, *Mystik und Wissenschaft bei Johann Baptista Van Helmont (1579-1644)* (1995)

This short monograph by Berthold Heinecke is based on his doctoral dissertation at the Technical University of Dresden in 1990, and was accompanied by a summary article in *Ambix* published in the same year as the book.¹²⁴ Heinecke's monograph is divided into two main subjects: Van Helmont's 'mysticism' and his 'science', the two topics effectively dividing the book in half.

Heinecke's introductory remarks focus on key aspects of the intellectual environment of Van Helmont's time, emphasising the role of scepticism, the criticism of Aristotelianism and the overall debate on method during the period.¹²⁵ It is followed by a discussion of mysticism, which employs Alois Maria Haas's definition of it as a 'strict unity between subject and object'. Heinecke goes beyond Haas to qualify Van Helmont's thought as 'philosophical' mysticism.¹²⁶ Unfortunately, Heinecke does not clarify what this is, and the reader is left to guess the meaning of his term.¹²⁷ Given

¹²¹ Halleux, 'Helmontiana II', p. 36 also cites Walter Pagel, Frances Yates, William Shea and Allen Debus.

¹²² Halleux, 'Helmontiana II', p. 36.

¹²³ Halleux, 'Helmontiana II', p. 34.

¹²⁴ Berthold Heinecke, 'The Mysticism and Science of Johann Baptista Van Helmont (1579-1644),' *Ambix*, 42 (1995), 65-78.

¹²⁵ Berthold Heinecke, *Mystik und Wissenschaft bei Johan Baptista Van Helmont (1579-1655)* (Bern: Peter Lang, 1995), pp. 35-36; 53-63, 38-53.

¹²⁶ Heinecke, *Mystik und Wissenschaft*, p. 73; 'Mysticism and Science', p. 66.

¹²⁷ This confusion is deepened in Heinecke's *Ambix* article which completely fails to mention Alois Haas's definition and goes on to make such affirmations as 'Philosophical mysticism provided van

Heinecke's constant reference to Neoplatonism, Renaissance philosophy and Hermeticism, I can only construe that what he means by 'philosophical mysticism' is in fact an esoteric tradition of Stoic-Neoplatonic origin.¹²⁸

Heinecke further investigates several aspects which to him are an integral part of the concept of 'philosophical mysticism', such as light metaphysics, the *semina* theory and the macrocosm-microcosm analogy.¹²⁹ This leads Heinecke to argue that Van Helmont displayed a view of nature characterised by 'spiritual monism', a term explained in the following manner: 'all of nature derives from the energy of the "seeds", which, animated by a divine idea, bring forth and guide all material objects.'¹³⁰ Heinecke concludes that 'this thinking had a pantheistic tendency in that the world becomes deified and God threatens to dissolve as a discrete entity'.¹³¹ He further asserts that in response Van Helmont 'attempted to compensate for the threatening consequences of the premises [...] with increased mystical-religiousness'.¹³² This line of argumentation fails to persuade, as it demands the reader believe with no evidence that Van Helmont was aware of the presumed 'pantheistic' tendencies in his *semina* theory and then made the choice to compensate it by enhancing his religiosity. Yet the *semina* theory could be found in St. Augustine and other orthodox religious figures, so a 'pantheistic' interpretation was not the necessary conclusion during the early modern period.¹³³ Moreover, Van Helmont saw *semina* as being placed in matter by God, and as such He was hardly 'dissolving' in the Helmontian system. Finally, historical analysis cannot be based on modern psychological assumptions, such as that Van Helmont's mystical ideas were acting as a 'compensation' for his natural philosophy.

Heinecke further traces the long lineage of light symbolism throughout the Middle Ages, particularly amongst the German mystics.¹³⁴ Even though he briefly mentions Paracelsus, Heinecke surprisingly omits discussion of the pervasive use of light in natural philosophy.¹³⁵ The reason is that Heinecke focusses on light only as

Helmont with the basic premises from which the potential and the cogency of the mystical experience proceed', p. 66, never attempting to define his terminology.

¹²⁸ This is the only conclusion that I can draw based on statements such as 'one of the central ideas of philosophical mysticism is the macrocosm-microcosm analogy', *Mystik und Wissenschaft*, p. 83 or 'Forming a central part of van Helmont's philosophy of nature is the doctrine of seeds, which by way of the Stoics and Neoplatonists had always belonged to the theoretical repertoire of philosophical mysticism'; 'Mysticism and Science', p. 66.

¹²⁹ Heinecke, *Mystik und Wissenschaft*, pp.75, 78-87.

¹³⁰ Heinecke, 'Mysticism and Science', p. 70.

¹³¹ Heinecke, 'Mysticism and Science', p. 70.

¹³² Heinecke, 'Mysticism and Science', p. 70.

¹³³ For a discussion of St Augustine's *semina* theory see chapter 4.2 On Nature.

¹³⁴ Heinecke, *Mystik und Wissenschaft*, p. 75.

¹³⁵ See my discussion of these sources in 4.2 On Nature.

mystical experience and pays less attention to the natural philosophy of light, which is so fundamental to Van Helmont's thought.¹³⁶

Heinecke then moves to the central issue of knowledge of the self, which he rightfully associates with that of God and the world.¹³⁷ He observes that self-knowledge is a mystical process and that Van Helmont follows a 'graduated structure of mystical experience'.¹³⁸ Here Heinecke discusses in particular depth the 'visionary mysticism' of Van Helmont and the role of dreams and visions in his epistemology.¹³⁹ He also briefly addresses the issue of love in Van Helmont's mysticism; he notes that for the Flemish philosopher, 'the act of love and the act of knowing are structurally identical'.¹⁴⁰

Having affirmed Van Helmont as a 'philosophical mystic', it is surprising to discover that Heinecke affirms no strong logical link between this proposed image of Van Helmont and that of Van Helmont as a 'scientist' and founder of the Scientific Revolution. Indeed, Heinecke does not concern himself too strongly with reconciling these two images of Van Helmont. Instead, Heinecke ascertains that Van Helmont differentiated between mysticism and experiment.¹⁴¹ Having just said that, he goes on to make the confusing contrary claim that in fact 'for van Helmont *unio mystica* meant both experiment and vision'.¹⁴²

I have found no proof for Heinecke's suggestion that mystical knowledge of nature (*scientia*) actually meant experiment; although experiment may have been a part of it, it was not its essential aspect.¹⁴³ Neither does Heinecke illustrate the process whereby Van Helmont might have reached a 'mystical' state by experimenting. Helmontian *scientia* may have involved experiment, but cannot be circumscribed by this term.

Later on, Heinecke makes another questionable statement, according to which scepticism and mysticism resulted in Van Helmont's orientation toward empirical experiment 'by fire'. Here Heinecke adopts an unmitigated positivist view whereby he believes that Van Helmont's interest in 'chemical philosophy' (which to him includes magic and alchemy) resulted in his adoption of a type of Baconian trial-and-error

¹³⁶ Heinecke, *Mystik und Wissenschaft*, pp. 107-111 returns to the theme of light mysticism in the context of self-knowledge.

¹³⁷ Heinecke, *Mystik und Wissenschaft*, pp. 94-115.

¹³⁸ Heinecke, 'Mysticism and Science', p. 68.

¹³⁹ Heinecke, *Mystik und Wissenschaft*, pp. 115-135.

¹⁴⁰ Heinecke, 'Mysticism and Science', p. 68.

¹⁴¹ Heinecke, 'Mysticism and Science', p. 69.

¹⁴² Heinecke, 'Mysticism and Science', p. 69.

¹⁴³ For further discussion on this, see chapter 4.3 On Man.

method which included a strong quantitative component.¹⁴⁴ In the accompanying article, Heinecke further states, without quoting, that Van Helmont ‘wanted to firmly establish philosophy as an experimental science’.¹⁴⁵ Such statements conjure more Robert Boyle (1627-1691) than Van Helmont, whose goals were never stated in this shape. Although Van Helmont had an undeniable interest in experiment, portraying him as a modern experimental scientist appears anachronistic. Moreover, it obscures the fact that Van Helmont did not see himself as a scientist in the modern sense, but as a physician whose work in the laboratory was justifiable through its practical end goals.¹⁴⁶

The first part of Heinecke’s book is by far the strongest, as it addresses some of the issues that Pagel paid less attention to, such as the mystical knowledge of the self or light mysticism. Yet Heinecke’s analysis often falls short of the subjects he tries to address, as he seems to quickly move on from Van Helmont’s text to grand reviews of the tradition being addressed, such as the theme of ‘macrocosm-microcosm analogy’. This allows the reader to acquire a strong understanding of the origins and development of a specific theme, but less of Van Helmont’s own views. Moreover, these grand ‘histories of ideas’ tend to dwarf the issue of the direct sources of Van Helmont’s works; in fact, Heinecke seems little concerned with the Flemish philosopher’s actual readings.¹⁴⁷ At the end of the book, one is left with the sense that, although Heinecke does identify some important themes in Van Helmont’s thought, he does not analyse them in great depth. Neither does he always back his more debatable arguments with quotations from Van Helmont. Finally, despite his emphasis on the term *philosophus per ignem*, Heinecke does not show a strong acquaintance with alchemy and the development of Paracelsian thought, except for a brief mention of Petrus Severinus (1542-1602) and Andreas Libavius (1555-1616).¹⁴⁸ Indeed, Heinecke’s interest in ‘chemical philosophy’ is limited to a reading of Allen Debus and Walter Pagel, and only in terms of Heinecke’s argument that experiment stood at the core of Van Helmont’s practical approach.

¹⁴⁴ Heinecke, *Mystik und Wissenschaft*, pp. 150-151, 161-165.

¹⁴⁵ Heinecke, ‘Mysticism and Science’, p. 73.

¹⁴⁶ For this, see chapter 4.3. On Man.

¹⁴⁷ Heinecke does not address the issue of whether Van Helmont read Tommaso Campanella or Francesco Patrizi though he mentions them rather often.

¹⁴⁸ Heinecke, *Mystik und Wissenschaft*, p. 153.

1.9. Guido Giglioni: *Immaginazione e Malattia – Saggio su Jan Baptista Van Helmont* (2000)

Guido Giglioni's study on Van Helmont focusses on the role of imagination in Van Helmont's medical concepts of disease and healing. According to Giglioni, *Ortus medicinae* is the last great medical, theological and philosophical synthesis on the subject of imagination before 'the Cartesian fracture'.¹⁴⁹ He argues that, in accordance with Van Helmont, 'falling sick is a process of representation (imagination) and an "interiorisation" of the exterior'.¹⁵⁰

Giglioni's perspective on Van Helmont is drawn from the history of medicine and imagination.¹⁵¹ Van Helmont is presented chiefly as a Renaissance physician, albeit one for whom the role of God dwarfs that of Nature.¹⁵² Indeed, Giglioni emphasises the importance of God in Van Helmont's views of life as permeating all things.¹⁵³

Giglioni further terms Van Helmont's views of the relationship between matter and spirit 'panpsychism'. Through this term, Giglioni produces an alternative to Pagel's 'hylozoism'; moreover, the Italian scholar does not accept Pagel's argument on behalf of Van Helmont's 'covert' Aristotelianism, suggesting that the latter's ideas originate in Neoplatonism.¹⁵⁴ However, replacing Pagel's Aristotelian terminology with the rather nebulous term 'panpsychism' may not be ideal, especially given that definitions of 'panpsychism' vary widely.¹⁵⁵ In addition, standard definitions of panpsychism often have implications of pantheism, which again would not be congenial to Van Helmont's view.¹⁵⁶ This is the more so as Giglioni's argument is perfectly coherent without using this vague term: the gist of it is that, in contrast with the Aristotelian matter-form unity, Van Helmont juxtaposes active spirit to passive matter.¹⁵⁷ Giglioni's observation is

¹⁴⁹ Giglioni, *Immaginazione e malattia*, p. 10. All quotations henceforth are my translation of the original Italian.

¹⁵⁰ Giglioni, *Immaginazione e malattia*, p. 14.

¹⁵¹ See for instance the analysis of concepts of the imagination in the Renaissance at pages 60-67.

¹⁵² Giglioni, *Immaginazione e malattia*, p. 94.

¹⁵³ Giglioni, *Immaginazione e malattia*, pp. 143-148.

¹⁵⁴ Giglioni, *Immaginazione e malattia*, pp. 43-53; the discussion of panpsychism is on pp. 43-44.

¹⁵⁵ On the definition of 'panpsychism', see T.L.S. Sprigge, 'Panpsychism', in *Routledge Encyclopedia of Philosophy* (London: Routledge, 2000), p. 654; 'Panpsychism', *Stanford Encyclopedia of Philosophy* <<http://plato.stanford.edu/entries/panpsychism/>> [accessed on 16 May 2012]; Thomas More, 'Panpsychism', *The Catholic Encyclopedia* (New York: Robert Appleton, 1911), vol 11.

¹⁵⁶ Giglioni recognises that Helmontian thought is far from any animist ideas but insists on numerous occasions that Helmontian philosophy includes 'a clear panpsychist tendency', p. 94, or that *De magnetica* 'offers a systematic exposition of Helmontian panpsychism', p. 58.

¹⁵⁷ Giglioni, *Immaginazione e malattia*, pp. 44-49.

generally true; however, in the sub-chapter ‘On Nature’ I will show that Van Helmont’s ideas are often nuanced.¹⁵⁸

Giglioni points out that Van Helmont’s views of imagination originate from his fundamental belief that man is an ‘image of God’.¹⁵⁹ Indeed, Giglioni rightfully considers that *imago Dei* is a ‘cardinal concept of Helmontian metaphysics’.¹⁶⁰ This image is found in the intellect, which ‘constitutes the link which unites creature to creator and the guarantee of the correspondence of the real with the intelligible’.¹⁶¹ At the same time, Giglioni astutely observes that images play an ambiguous role in Van Helmont’s thought. On one hand, the transformation of the intellect in the image of God is paradoxically achieved by renouncing all images.¹⁶² On the other hand, the dream-vision (*visio somnialis*) plays an important part in the process of elevating the intellect toward God.¹⁶³ Hence, Van Helmont distinguishes between the inferior *imagines phantasiae* and the superior *imagines intellectuales*.¹⁶⁴

The strength of Giglioni’s subsequent argument lies in his close analysis of Van Helmont’s biological concepts related to disease and cure.¹⁶⁵ The issue of ‘life’ in Helmontian thought, including its degrees and the concepts of *vita media* and *magnum oportet* is carefully reviewed.¹⁶⁶ Giglioni also describes Helmontian thought in regards to healing, which chiefly imply the re-establishment of the equilibrium of the external and internal world.¹⁶⁷

However, what is conspicuously missing in Giglioni’s account is a discussion of Van Helmont’s medical alchemy and his reliance on alchemical medicine in his process of curing. This is mirrored by Giglioni’s limited reference to Paracelsian thought. His perspective is mainly drawn on the Renaissance history of medicine, with alchemy and chemistry being less significant in the discussion. Much more cogent is his emphasis on the religious origins of Van Helmont’s thought, including his theological speculations on the Original Sin insofar as this concerns the entrance of death and disease into human existence.

¹⁵⁸ See below, subchapter 4.2 On Nature.

¹⁵⁹ Giglioni, *Immaginazione e malattia*, pp. 12, 27; see also the conclusion, pp. 169-175.

¹⁶⁰ Giglioni, *Immaginazione e malattia*, p. 150.

¹⁶¹ Giglioni, *Immaginazione e malattia*, p. 27.

¹⁶² Giglioni, *Immaginazione e malattia*, pp. 150-152.

¹⁶³ Giglioni, *Immaginazione e malattia*, pp. 31-41.

¹⁶⁴ Giglioni, *Immaginazione e malattia*, p. 37.

¹⁶⁵ Giglioni, *Immaginazione e malattia*, pp. 75-80, 82-84, 101-106.

¹⁶⁶ Giglioni, *Immaginazione e malattia*, pp. 43-96.

¹⁶⁷ Giglioni, *Immaginazione e malattia*, p. 140.

1.10. Other Articles on Van Helmont's Thought

1.10.1 Norma Emerton's 'Creation in the Thought of J.B. Van Helmont and Fludd' (1994)

Emerton's article is inspired by Debus's emphasis on the Paracelsian view of Creation in *The Chemical Philosophy*.¹⁶⁸ While rightfully observing that Van Helmont and Robert Fludd (1574-1637) were similar in that 'both claimed to present a Christian philosophy of chemistry and medicine, based on creation and in agreement with the Bible', Emerton argues that the two held contrasting views of Nature.¹⁶⁹ According to Emerton, where Van Helmont believed that 'Nature is the command of God', Fludd believed that Nature was a 'semi-deity' and offered a creation myth that had little in common with the Biblical story.¹⁷⁰ This reading of Fludd is based on the unpublished *Philosophicall Key* and not on the fundamental *De macrocosmi historia*; nevertheless, Emerton argues that this latter book also 'had a different method and aim from the Biblical narrative', being essentially a Manichean cosmology.¹⁷¹ Later, Emerton asserts that the imagery is in fact based on the Hermetic cosmogony of *Poimandres*, an assertion which immediately raises the question of whether the scholar is trying to equate Manichaeism with Hermetism. The answer is given by Emerton herself later on, where she affirms that 'denigration of earth was a legacy of the Gnosticism transmitted by Hermetic thought. It had no place in the Biblical framework of creation'.¹⁷² Such stark affirmations are never supported by citations of any Hermetic or Gnostic scholars.¹⁷³

Set in such terms, Van Helmont acts as an orthodox Christian foil to Fludd,¹⁷⁴ even though from Emerton's account it clearly emerges that Fludd was much more Scholastic and less Paracelsian in thought than Van Helmont was. Ironically, in Van Helmont's day Scholasticism was the 'orthodox Christian' point of view and

¹⁶⁸ Norma Emerton, 'Creation in the Thought of J.B. Van Helmont and Robert Fludd', in *Alchemy and Chemistry in the 16th and 17th Centuries*, ed. by Piyo Rattansi and Antonio Clericuzio (Dordrecht: Kluwer Academic Publishers, 1994), pp. 85-103 (p. 85).

¹⁶⁹ Emerton, 'Creation in the Thought', p. 87.

¹⁷⁰ Emerton, 'Creation in the Thought', p. 87.

¹⁷¹ Emerton, 'Creation in the Thought', p. 87.

¹⁷² Emerton, 'Creation in the Thought', p. 91.

¹⁷³ On the contrary, as Faivre points out, the assumption of the Hermetica is 'the absence of absolute ontological dualism' such as exists in Gnostic thought; see Antoine Faivre, 'Ancient and Medieval Sources of Modern Esoteric Movements', in *Modern Esoteric Spirituality*, ed. by Antoine Faivre and Jacob Needleman (New York, NY: Crossroad, 1992), pp. 1-71 (p. 5).

¹⁷⁴ Emerton, 'Creation in the Thought', p. 89: 'Helmont was constrained by his adherence to the Biblical text and his faithfulness to orthodox Christian tradition'.

Paracelsianism was often accused of heterodoxy. Yet Emerton seems little concerned with the historical viewpoint; she is only concerned to uphold the preconceived notion that the 'Hermetic content' of Fludd's work was heretical (i.e. 'Gnostic').

Fludd aside, Emerton construes Van Helmont as a model orthodox thinker, an idea which would have surely appalled the Jesuits and other Scholastic opponents of the Flemish philosopher. The argument does of course raise the question of what 'orthodox' means and whether this term is not perchance linked with historical circumstances and confessional allegiance.¹⁷⁵ Moreover, Emerton seems to confuse Van Helmont's rhetoric, which in *Ortus medicinae* is carefully drawn on St Augustine and the Fathers, with Van Helmont's ideas and intentions; similarly, Fludd's Baroque rhetoric is rejected outright without taking into account the actual content of his affirmations. Emerton also fails to address the issue of the historical circumstances that might have made Van Helmont, directly accused of heresy, seek support for his ideas from patristic sources, while Fludd was not subject to any immediate pressure.¹⁷⁶ Neither does Emerton explain Van Helmont's use of the un-Biblical references to the abyss as 'the Night of Orpheus and the Darkness of Pluto', which could have been interpreted as remnants of Manichaeism, should the author want to make such a tenuous point.¹⁷⁷

Thus, questionable affirmations make Emerton's entire argument of opposing Van Helmont to Fludd unconvincing. It is true that Van Helmont dismissed Fludd in a letter to Mersenne, but his casual remarks do not by themselves give ground to such an elaborate contrast as Emerton tries to establish here.¹⁷⁸ The positive aspect of this article is that it raises the question of the religious substrate of the work of Van Helmont and Fludd, an aspect which, despite Pagel's general attempts in 1944, was generally ignored. However, making Van Helmont into a thorough-going Augustinian thinker (an idea which in itself raises the question of whether the label 'Augustinian' is equivalent to 'orthodox', a matter to reflect upon in light of the condemnation of Baianism and Jansenism in the period), is an exaggeration in itself and a simplification of his complex viewpoint.

¹⁷⁵ Presumably, Emerton means 'Catholic' by 'orthodox' but that assumption is never stated explicitly.

¹⁷⁶ We must keep in mind that, although Fludd was embroiled in a large number of controversies in his life, including in his own country, he was never pursued for heresy.

¹⁷⁷ Emerton, 'Creation in the Thought', p. 94.

¹⁷⁸ 'Jean-Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris: 19 Décembre 1630', in *Correspondance du Marin Mersenne*, ed. by Cornelis de Waard, 17 vols. (Paris: Gabriel Beauchesne, 1936), II, 584.

1.10.2. William Newman, 'Corpuscular Theory in J.B. Van Helmont and its Medieval Sources' (1993)

As part of his long-term project to demonstrate that corpuscular theory was an integral part of alchemical thought and thereby include it in the historiography of the Scientific Revolution, William Newman attempts to illuminate the corpuscularianism present in Van Helmont's work. In this, he takes up the argument of Kurd Lasswitz's 1890 work *Geschichte der Atomistik* by focussing on Van Helmont's corpuscular views.¹⁷⁹ In the first instance, Newman discusses Van Helmont's theory of the formation of gas by the extraversion of the sulphur in a water particle.¹⁸⁰ This idea, Newman argues persuasively, is a juxtaposition of Geber (fl. thirteenth century) and Paracelsus.¹⁸¹ Further, Newman points out Van Helmont's indebtedness to Scholastic ideas of the *minima naturalia*, which are linked with his ideas on the action of ferments and *semina*.¹⁸² Finally, Newman argues that Van Helmont's idea of the liquor Alkahest is inspired by Geber, maintaining that 'Geber's philosophical mercury is surely the model for Van Helmont's alkahest'.¹⁸³

Newman's article would have come across as a well-researched account of some of Van Helmont's Geberian and Scholastic sources of thought, if it did not carry some of its assumptions too far.¹⁸⁴ For instance, Newman terms Van Helmont's theories 'vitalistic corpuscularianism' based on a rather limited reading and without constructing a thorough argumentation of his terminology.¹⁸⁵ Despite the presence of corpuscularian views in Van Helmont's works, they only represent a minor part of his system. In addition, Newman's penchant for stark affirmations is especially problematic in the case of the source for Van Helmont's Alkahest. Stating that Geber's mercury is the model for

¹⁷⁹ This project is summarised by Newman in *Atoms and Alchemy* (Chicago, IL: University of Chicago Press, 2006), pp. 13-20.

¹⁸⁰ Newman, 'The Corpuscular Theory in J.B. Van Helmont and its Medieval Sources', *Vivarium*, 31 (1993), 161-191 (pp. 162-165).

¹⁸¹ Newman, 'The Corpuscular Theory', pp. 174-175.

¹⁸² Newman, 'The Corpuscular Theory', pp. 176-181.

¹⁸³ Newman, 'The Corpuscular Theory', p. 185. On the liquor Alkahest in Van Helmont, see also Paulo A. Porto, "'Summus atque felicissimus salium': The Medical Relevance of the Liquor Alkahest", *Bulletin of the History of Medicine*, 76 (2002), 1-29; Bernard Joly, 'L'alkahest, dissolvant universel, ou quand la theorie rend pensable une pratique impossible', *Revue d'Histoire des Sciences*, 49 (1996), 305-344; Ladislao Reti, 'Van Helmont, Boyle and the Alkahest', in Ladislao Reti and William C. Gibson, *Some Aspects of Seventeenth-Century Medicine and Science* (Los Angeles, LA: William Andrews Clark Memorial Library, 1969), pp. 3-19.

¹⁸⁴ Newman, 'The Corpuscular Theory', pp. 165-174.

¹⁸⁵ Newman, 'The Corpuscular Theory', pp. 181, 186. It seems the classical history of science paradigmatic division between 'mechanical' and 'vitalistic' is hard to set aside even today. Newman seems to have no problem terming Van Helmont's theories vitalistic, and even to state that there were 'older, vitalistic theories' than Van Helmont. Later, Newman further terms Van Helmont's ideas 'entrenched hylozoism', p. 190, an idea that Pagel would have certainly supported, but not Giglioli.

the Alkahest and that the inspiration came ‘not only from Paracelsus but from the tradition of Geberian alchemy’ is overstating the case.¹⁸⁶ Van Helmont may have drawn ideas from Geber, but he openly affirmed that his ideas on the composition of the Alkahest were influenced not by Geber, but by Raymond Lull.¹⁸⁷ Newman completely avoids this point made by Van Helmont himself.

1.11. The Contribution of Scholarship on ‘Helmontianism’

Since 1960 there has been a remarkable surge of interest in ‘Helmontianism’ and Helmontian influence in England. One of the trail-blazers was Piyo M. Rattansi who wrote a 1964 article on ‘The Helmontian-Galenist controversy in Restoration England’, written from the perspective of the history of medicine.¹⁸⁸ His lead was quickly followed by Charles Webster, ‘The English Medical Reformers of the Puritan Revolution: A Background to the Society of Chymical Physitians’ (1967).¹⁸⁹

As already pointed out, Debus’s *The Chemical Philosophy* generated sustained attention on both Van Helmont and his influence in late seventeenth and early eighteenth-century chemical and medical thought. It was hence followed by a flurry of works, which include Bernard Joly, ‘La réception de la pensée de Van Helmont dans l’œuvre de Pierre Jean Fabre’ (1990), Antonio Clericuzio, ‘From Van Helmont to Boyle. A Study of the Transmission of Helmontian Chemical and Medical Theories in Seventeenth-Century England’ (1993), Debus’s *Chemistry and Medical Debate: Van Helmont to Boerhaave* (2001), Newman and Principe’s *Alchemy Tried in the Fire* (2002), and more recently Steffen Ducheyne’s ‘A Preliminary Study of the Appropriation of Van Helmont’s oeuvre in Britain in Chymistry, Medicine and Natural Philosophy’ (2008).¹⁹⁰ This development, although tangential to the figure of Van

¹⁸⁶ Newman, ‘The Corpuscular Theory’, p. 186.

¹⁸⁷ Van Helmont, *Opuscula medica inaudita*, ‘A Treatise on Fevers’, chap. 14, ‘A Perfect Curing of All Fevers’, p. 988; ‘De Febribus’, chap. 14, ‘Perfecta febrium omnium sanatio’, p. 776: ‘A Mercurio vulgo venali, abstrahe liquorem Alkahest, cujus meminit 2. de viribus membrorum c. de hepate. Quod sit unius horae quadrante. Nam, inquit Raymundus, astantibus amicis & praesente Rege, coagulavi argentum vivum, & nemo praetor Regem, scivit modum. In quo coagulatione istud est singulare. Quod liquor Alkahest, idem in numero, pondere, & activitate tantum valet millesima actione, quantum prima. Quia agit sine reactione patientis. Mercurio igitur sic coagulato, absque ulla coagulantis remanentia, fac inde pulvere minutum.’

¹⁸⁸ Piyo M. Rattansi, ‘The Helmontian-Galenist Controversy in Restoration England’, *Ambix*, 12 (1964), 1-23.

¹⁸⁹ Charles Webster, ‘The English Medical Reformers of the Puritan Revolution: A Background to the Society of Chymical Physitians’, *Ambix* (1967), 14-41.

¹⁹⁰ Bernard Joly, ‘La réception de la pensée de Van Helmont dans l’œuvre de Pierre Jean Fabre’, in *Alchemy Revisited: Proceedings of the International Conference on the History of Alchemy at the*

Helmont, has sometimes shed important light on Van Helmont's work in itself. For this purpose I will review Newman and Principe's dedicated chapter on Van Helmont.

1.11.1. William Newman and Lawrence Principe, *Alchemy Tried in the Fire* (2002)

This influential work of Newman and Principe treats of Van Helmont's influence on English 'chymists'.¹⁹¹ Much of chapter two is dedicated to an analysis of some of Van Helmont's ideas under the title 'Number, Weight, Measure and Experiment in Chymistry: From the Medievals to Van Helmont'.¹⁹²

As the chapter title suggests, Newman and Principe's assessment of Van Helmont is confined to a specific topic, more precisely his use of quantitative and experimental techniques in alchemy. Indeed, from this particular viewpoint, the authors' analysis is very detailed and based on a close reading of several chapters of the *Ortus medicinae* and, somewhat surprisingly, the early *Eisagoge in artem medicam*.¹⁹³

The main gist of the argument is this: Van Helmont only apparently rejected mathematics, but in reality his rejection referred to Scholastic mathematics only, and not to the use of quantities in 'chymistry'.¹⁹⁴ In fact, Van Helmont integrated Paracelsian approaches with medieval metallurgical techniques to design a new concept of mass balance as a tool for chemical demonstration.¹⁹⁵ Although Newman and Principe are probably correct in pointing out that Van Helmont was guided by principles of medieval metallurgy for his practice, they fail to mention that Van Helmont's principle of mass balance also had a theoretical basis derived from his speculations on the Genesis. Thus, as I will point out in chapter 4.2 On Nature, Van Helmont was moved by his peculiar understanding of elemental matter to postulate a general principle

University of Groningen, 17-19 April 1989, ed. by Z.R.W.M. von Martels (Leiden: Brill, 1990), pp. 206-215; Antonio Clericuzio, 'From Van Helmont to Boyle. A Study of the Transmission of Helmontian Chemical and Medical Theories in Seventeenth-Century England', *The British Journal for the History of Science*, 26 (1993), 303-334; Allen G. Debus, *Chemistry and Medical Debate: Van Helmont to Boerhaave* (Canton, MA: Science History Publications, 2001); Steffen Ducheyne, 'A Preliminary Study of the Appropriation of Van Helmont's Oeuvre in Britain in Chymistry, Medicine and Natural Philosophy', *Ambix*, 55 (2008), 122-135.

¹⁹¹ Newman and Principe are supporters of the term 'chymistry' and 'chymist' for the alchemy and chemistry of the early modern Period, so I will use their term here. For their argument, see William R. Newman and Lawrence M. Principe, 'Alchemy vs Chemistry: The Etymological Origins of a Historiographic Mistake', *Early Science and Medicine*, 3:1 (1998), 32-65 (pp. 41-42).

¹⁹² William Newman and Lawrence Principe, *Alchemy Tried in the Fire* (Chicago, IL: Chicago University Press, 2002), pp. 35-91.

¹⁹³ Newman and Principe, *Alchemy Tried in the Fire*, pp. 56-91.

¹⁹⁴ Newman and Principe, *Alchemy Tried in the Fire*, p. 68: 'Van Helmont felt a profound repugnance for the Scholastic mathematics to which he was exposed as a university student.'

¹⁹⁵ Newman and Principe, *Alchemy Tried in the Fire*, pp. 90-91.

of conservation.¹⁹⁶ This example points out that Van Helmont was much more than a laboratory technician as may appear from Newman and Principe's account, but a thinker with a religious-philosophical theory to support his practice.

Hence, the image of Van Helmont that *Alchemy Tried in the Fire* paints can be misleading, since describing him as a good 'experimenter' or 'chemical practitioner' reveals only one side of his personality. Newman and Principe attempt to compensate this by offering a very brief biography of the man, but the result is a stripped down version of Van Helmont, especially of his dreams. Indeed, out of Van Helmont's complex epistemological scaffolding it is only the dreams that interest them, hence the term of 'oneiric epistemology' applied to Van Helmont. One is left to suspect that the authors are either not aware or unconcerned with Van Helmont's anthropological system, which enters little in their interest in the Flemish philosopher's quantitative techniques.

1.12. Conclusion

This historical overview has chronicled a steady increase in scholarly interest in Van Helmont, despite a remarkable thirty-year gap after the end of the Second World War. Particularly since the 1977 publication of Allen Debus's work *The Chemical Philosophy* and Pagel's 1982 monograph, there has been a more or less steady flow of articles and books on the topic of Van Helmont or Helmontianism.

This survey has also demonstrated that some significant scholarly efforts have been made to understand the work, life and times of Van Helmont. At the same time, they have all too often been undertaken with the explicit or implicit purpose of establishing his position in the history of science's gallery of early scientists. Due to the surviving Whiggish paradigm of the 'contribution to modern science', limited attempts have been made to comprehend the original and comprehensive nature of the Helmontian framework of philosophy and theology.

We have also seen how Van Helmont has constantly been bracketed in distinctly defined categories, most of them anachronistically created by the grand narratives of the early twentieth-century history of science. For instance, Pagel saw him as an Aristotelian vitalist and monist. Newman concurred with Pagel's general statement, but qualified the latter's interpretation by baptising Van Helmont a 'vitalist corpuscularian'.

¹⁹⁶ See below, chapter 4.2 On Nature.

Both Pagel and Newman agreed in terming him ‘hylozoist’. By comparison, Giglioni rejected the Aristotelian connotations of ‘hylozoism’ and preferred to refer to Van Helmont’s ‘panpsychism’.¹⁹⁷

With regards to Van Helmont’s natural philosophical ideas, the almost universal tendency of historians to categorise Van Helmont’s ideas as ‘vitalism’ is particularly problematic. This term may help situate his ideas for our modern mind, but historically it is completely anachronistic, as ‘vitalism’ stands for a specific eighteenth-century current of thought that developed in opposition to Cartesian mechanism. This is clearly explained by André Pichot in his *Histoire de la notion de vie*, where he observes that in the eighteenth century, mechanism transformed nature into something not alive and vitalism was a response to this new doctrine.¹⁹⁸ As he points out, one can talk of vitalism only beginning with the eighteenth-century chemist Georg Stahl,¹⁹⁹ and more accurately with the school of Montpellier.²⁰⁰ Besides the historical anachronism, applying a twentieth-century dichotomy between ‘mechanism’ and ‘vitalism’ to Van Helmont obscures the real intentions and scope of his thought. Lumping together Van Helmont with the Aristotelians as ‘vitalists’ does not do justice to his explicit goal of overthrowing Aristotelianism as a pagan and obsolete philosophy, neither does it allow us to capture the subtlety of his ideas regarding matter and spirit.

Going beyond his ideas of Nature, the modern penchant for categorisation did not escape even those few authors who tackled Van Helmont’s ‘spiritual’ side. Pagel described him as a religious ‘fundamentalist’, a term he did not explain.²⁰¹ Emerton also wrote an elaborate article designed to identify Van Helmont as an orthodox Augustinian Christian. Others have preferred to see Van Helmont more vaguely as a mystic, for instance Heinecke, who described him as a philosophical mystic and spiritual monist. It seems as if Van Helmont’s image was prone to being twisted into whatever shape the scholar wanted to convey. Unsurprisingly, some of these images have been diametrically opposed to one another. For instance, Heinecke’s views of Van Helmont as a potential pantheist contrasts with that of Emerton, who believed Van Helmont was genuinely orthodox. Where Partington and Pagel have described Van Helmont as a thorough-going Catholic, even a ‘fundamentalist’, Mévergnies portrayed his allegiance to religion as a method to cover up his unorthodox views.

¹⁹⁷ Giglioni, *Immaginazione e malattia*, p. 13.

¹⁹⁸ André Pichot, *Histoire de la notion de vie* (Paris: Gallimard, 1993), p. 453.

¹⁹⁹ Technically, Pichot shows, Stahl’s views were ‘animist’ rather than ‘vitalist’ and the vitalist school drew its arguments from Gottfried Leibniz and Isaac Newton rather than from Stahl; see pp. 524-525.

²⁰⁰ Pichot, pp. 453, 524-525.

²⁰¹ Pagel, *Joan Baptista Van Helmont*, p. 61.

The present study seeks to place Van Helmont's work within a historical perspective, avoiding, to the greatest extent possible, modernist labels that would have been incomprehensible to Van Helmont or his intellectual milieu. The approach is congruent with that of modern anti-eclectic historiography, which seeks to investigate a historical figure or period beyond traditional boundaries of the academic disciplinary fields.²⁰² The work will hence not focus on his contribution to modern science or the modern mentality, but will try to investigate Van Helmont's ideas in relationship to his times. The approach will be multidisciplinary and governed by the principle of objectivity. The intention is to present, as devoid of *a priori* judgment as possible, the complexity of his worldview as an integral whole. Of course, no overview can achieve the complexity of Van Helmont's thought in itself, and constraints of the thesis force a selection of ideas and quotations presented. Yet, within these limitations the study will attempt to be as comprehensive and non-judgmental as possible.

²⁰² Anti-eclectic historiography 'questions the selective procedures by which historians since the period of Enlightenment have been defining and demarcating their disciplinary fields. It argues that such procedures are ideological and normative, and seeks to correct the historical distortions they have created by calling attention to the role and significance of those currents and ideas that, as casualties of the process of academic professionalization, have ended up in the reservoir of "rejected knowledge". As a result, anti-eclectic historiography questions the established canon of modern intellectual and academic culture and emphasizes that our common heritage is of much greater complexity than one would infer from standard academic textbooks... Ideally, the practice of anti-eclectic historiography implies that the criteria for what is and what isn't included or taken seriously in a given field of research should not be determined by any traditional discipline and its theoretical or methodological conventions, but should be derived directly from the requirements of whatever it is that is being studied'; Wouter J. Hanegraaff, 'Jacob Brucker and the History of Thought', in *The Making of the Humanities: vol 1, Early Modern Europe*, ed. by Rens Bod, Jaap Maat & Thijs Veststeijn (Amsterdam: Amsterdam University Press, 2010), pp. 367-385 (p. 379). See also Wouter J. Hanegraaff, *Esotericism and the Academy: Rejected Knowledge in Western Culture* (Cambridge: Cambridge University Press, 2012), p. 152.

Chapter 2: The Background to Van Helmont's Ideas

No historical investigation of Van Helmont's thought can be undertaken without taking into consideration the intellectual scene at the turn of the seventeenth century and the circumstances of Van Helmont's life. The Flemish philosopher was a man of his time, emerging from a specific intellectual environment and historical circumstance. He lived in a period of great turmoil for Western Europe and his native Netherlands, one racked by religious, political and philosophical conflicts. The general upheaval of this period was reflected at a microcosmic scale in Jan Baptista's life itself, as will be seen in the brief biography. Caught in the midst of religious and philosophical strife, in a time of increasing intolerance, Van Helmont paid for his idiosyncratic views with more than a decade of persecution. Although his travails do not compare to the contemporary persecutions of Giordano Bruno (1548-1600) or Galileo Galilei (1564-1642), one cannot lightly discount either their seriousness or their impact on his thought.

This chapter is hence divided into two sections: the intellectual landscape around Van Helmont's lifetime, as well as an overview of his life and works. While the first part seeks to convey some of the intellectual substrata of the period, limits of space and scope have demanded concentration on those currents of thought that had a direct or semi-direct bearing on the thought of Van Helmont. Where necessary, the earlier roots of some ideas permeating the epoch have been reviewed.

2.1. The Intellectual Landscape in Van Helmont's Time (1550 – 1650)

This part of the 'Background' chapter focusses on the historical situation and the wide currents of thought that permeated the time of Van Helmont. It is hence divided into three sections: the first briefly overviews the historical and political situation of the Southern Netherlands at the time of Van Helmont's life. The second one focusses on the complex religious situation of the period, including the Catholic conflict surrounding the Jesuits at Jan Baptista's *alma mater*, the University of Louvain. In this 'religious' category I have included the growth of eschatology and prophecy in the period as well as the focus on divine illumination rather than reason as a means for the pursuit of knowledge. As will be seen in the analysis of Van Helmont's work, these themes constitute significant aspects of his thought.

Finally, the third section will review the changes occurring in the natural philosophy of the period. It should be noted that, in the context of the intense piety of the post-medieval world, natural philosophy was generally intertwined with religion. Far from the Enlightenment tendency of separating religion and philosophy, the general assumption was one of continuum between the two. It was rather the modalities whereby God interacted with the world that sparked debate. Van Helmont himself was part of a current, originating in the Renaissance, which emphasised the presence and immanence of God in Creation. This current, further advanced by the alchemical philosophy of Van Helmont's time, argued for the close kinship between God, Man and Nature, and hence sought a new synthesis between Christianity and philosophy.

2.1.1. The Historical Situation in the Low Countries (1550 – 1650)

The sixteenth and early seventeenth centuries were a period of religious and political turmoil caused by the Reformation. The break with Rome, begun in the 1520s under the leadership of Martin Luther (1483-1646) in Germany and Ulrich Zwingli (1484-1531) in Switzerland, spread like wild fire and acquired more and more revolutionary forms in the shape of Calvinism, and the numerous radical sects such as Anabaptism or Unitarianism. Threatened by this ascendancy, Catholicism responded both militarily, through the campaigns of the Spanish and Austrian Habsburgs, and religiously through the Counter-Reformation drawn up in the Council of Trent (1545-1563). Eventually, the tension exploded in the Thirty Years' War (1618-1648), the widest European conflagration prior to World War I.

The turmoil of early modern Europe affected the Low Countries in a particularly dramatic fashion. The lands, inherited by the Habsburgs from the dukes of Brabant at the beginning of the 1500s, fragmented along religious lines and ultimately broke up into the Protestant Netherlands, in the north, and Catholic Belgium in the south.¹ Henceforth, the two areas would develop as separate countries with their own government and organisation.

¹ Strictly speaking, the Southern Netherlands were not formally known as Belgium until 1831. However, 'Belgium' was a recognisable unit during Van Helmont's time as an equivalent with 'Flanders', a term which was receding from use. See for instance Van Helmont, chap. 2, 'The Author's Studies', p. 11, 'Studia authoris', p. 14.

The story of the break-up of the united Low Countries has been subject of many a historical study.² An already ambiguous relationship between the local nobles and the Spanish Habsburg dynasty that ruled them was worsened by the spread of Protestantism to the Low Countries in the mid-1500s.³ In 1565, the nobility, particularly the Calvinist-sympathising youth, revolted against Philip II of Spain.⁴ To restore order, Philip sent a large army led by the Duke of Alva (1507-1582), ‘the iron duke’, who established a reign of terror in the Low Countries between 1567 and 1573.⁵ Unfortunately, rather than stem the rebellion, Alva’s aggressive policies worsened it. In 1572, a meeting of Protestant rebels at Dordrecht proclaimed Prince Willem of Orange (1533-1584) as the *stadhouder* of the provinces. The de-facto division was made official in 1581, when the self-proclaimed General Estates of the United Provinces (now the Netherlands) officially deposed the king of Spain as hereditary ruler.⁶ By comparison, the southern lands, predominantly Catholic, reconciled themselves with the king of Spain in May 1579 under the Union of Arras, which confirmed the Catholic faith in Flanders.⁷

This state of affairs resulted in continuous military confrontations and skirmishes between the North and the South as each tried to assert their dominance over strategically important cities and areas of the Low Countries. For instance, in 1595, the Dutch army occupied the city of Huy in a surprise move, but were quickly repelled by the Spanish army.⁸ Larger cities like Brussels passed from the control of one side to the other. In 1579, the audacious Count of Egmont (1558-1590) established a firmly Calvinist government in Brussels with the support of five contingents of Scottish troops. In 1581 he attempted to eradicate Catholic belief in the town by forbidding the public display of Catholicism, an edict which resulted in a major migration of Catholics from the town.⁹ In 1585, the governor of the Spanish Netherlands, Alexander Farnese,

² See for instance, P. Janssens, ‘The Spanish and Austrian Netherlands, 1579-1780’, in J.C.H. Blom, *History of the Low Countries* (Amsterdam: Berghahn, 2006), pp. 221-275; Alastair Duke, *Reformation and Revolt in the Low Countries* (London: Cambridge University Press, 2003) or Geoffrey Parker, *The Dutch Revolt* (Harmondsworth: Penguin, 1990). Most of these accounts are, however, focussed on the revolt in the northern Netherlands.

³ Henri Pirenne, *Histoire de Belgique*, 7 vols (Brussels: Henri Lamertin, 1920), V, 239.

⁴ Pedro Rubio Merino, ‘Introducción’, in Juan Roco de Campofrío, *Espana en Flandes, Trece Anos de Gobierno del Archiduque Alberto (1595-1608)* (Madrid: Graficas Yagues, 1973), pp. 1-21 (p. 20).

⁵ Pirenne, *Histoire de Belgique*, V, 269-271, Carter Lindberg, *European Reformations* (Oxford: WileyBlackwell, 2009), p. 289.

⁶ Pirenne, *Histoire de Belgique*, II, 357.

⁷ Pirenne, *Histoire de Belgique*, II, 346-347.

⁸ *Biographie Nationale de Belgique*, 27 vols (Brussels: Thiry & Van Buggenhout, 1866-1938), V, 640.

⁹ Pirenne, *Histoire de Belgique*, II, 350-351.

managed to finally uproot the Calvinist party from the city. He made a spectacular entry into Brussels in December 1585.¹⁰

In 1598, prior to his death, Philip II of Spain decided to pass the government of the southern Low Countries to his daughter the infanta Isabella (1566-1633) and her betrothed, Archduke Albert of Austria (1559-1621).¹¹ The agreement foresaw that that Albert and Isabella and their progenitors were allowed to rule the Low Countries autonomously for as long as they had a male heir. However, as the two archdukes were unable to have children, the rule of Belgium passed back to Spain after Albert's death in 1621. The short period of autonomy under the leadership of Albert and Isabella was hailed as the beginnings of modern Belgium and the model of an independent rule for later Belgian leaders.¹² During this time, the archdukes contributed to a flourishing of the state, arts and sciences in Belgium. In 1609, they signed a truce of twelve years with the United Provinces that enabled the recovery of the country in the aftermath of the long period of troubles.

After Albert's death in 1621, Belgium found itself as a major theatre of conflict in the Thirty Years' War, between the Netherlands, Spain, France, and the German states.¹³ Under the rule of the new King Philip IV (1621-1665), Spain resumed its belligerence with the Netherlands, temporarily suspended by the truce of 1609. Despite initial successes such as the conquest of Breda in 1625, the Spanish troops soon found themselves in the defensive; in 1629 the Dutch army occupied Bois-le-Duc and in 1632 Maastricht.¹⁴ In 1635, the Dutch concluded a treaty with France whereby they would unite their forces to invade the Spanish Netherlands. After several years of conflict, in 1643, Spain lost a major battle at Rocroi in front of the French armies.¹⁵ Despite the 1648 peace treaty of Munster, the war between France and Spain raged on many years after the end of the Thirty Years' War, ending only in 1659 with the Treaty of the Pyrenees.

¹⁰ Alexandre Henne and Alphonse Guillaume Ghislain Wauters, *Histoire de la ville de Bruxelles* (Brussels: Librairie Encyclopedique de Perichon, 1845), pp. 4-5.

¹¹ Victor L. Brants, *La Belgique au XVIIe siecle: Albert et Isabelle* (Brussels: Ch Peeters, 1910), p. 6.

¹² Brants, *La Belgique au XVIIe siecle*, pp. 128-129.

¹³ Camille Gaspar, Louis Hissette, Victor Tourneur et Auguste Vincent, *La Belgique sous les Habsbourg d'Espagne*, 2 vols (Brussels: Bibliotheque Royale de Belgique, 1925), I, 6-7.

¹⁴ Henne and Wauters, *Histoire de la ville*, pp. 47, 50.

¹⁵ Thomas Munck, *Seventeenth Century Europe: State, Conflict and Social Order 1598-1700* (Basingstoke: Palgrave-Macmillan, 2005), p. 58.

2.1.2. The Religious Background

2.1.2.1. Catholicism in the Southern Netherlands

At the beginning of the 1600s, the Catholic Church of the Southern Netherlands was deemed to be one of the strongholds of the faith in Europe. Louvain theologians took an active role in the intellectual struggle of Catholicism against Protestantism, censuring the work of Martin Luther in 1519 and participating in the Council of Trent.¹⁶ Yet the united front against the threat of Protestantism hid internal doctrinal and power struggles between the Belgian theologians, grouped around the University of Louvain (Leuven) and the Jesuit order, seeking to establish a strong foothold in the Southern Netherlands.

Since the fifteenth century, the intellectual life of the Low Countries had been dominated by the University of Louvain, founded in 1425 by Duke Jean IV de Brabant (1403-1427).¹⁷ In 1432, Pope Eugen IV (1388-1447) allowed the organisation of a theology faculty, a supreme honour offered to a university at the time.¹⁸ Grateful for its Papal protection, Louvain remained throughout the fifteenth and sixteenth century theologically close to the Papacy.¹⁹

However, while remaining firmly anchored in the Catholic faith, Louvain theology evolved in an idiosyncratic direction due to its long-standing interest in Augustinian studies. During the early modern period, it even bred the unorthodox movements of Baianism and Jansenism. Michel de Bay or Baius (1513-1589), a Louvain professor of theology who became the Dean of the school in 1570, attacked the Scholasticism of the Catholic Church and proposed a doctrinal return to the theology of St Augustine and other Church Fathers.²⁰ Amongst his most controversial propositions was the idea that the Original Sin of Adam and Eve was sexual concupiscence, an interpretation that drew on his understanding of the concept of *libido* (desire) in St

¹⁷ Leon Van der Essen, *L'Université de Louvain – Son origine, son histoire, son organisation 1425-1953*. (Brussels: Office de Publicité, 1953), p. 5.

¹⁷ Leon Van der Essen, *L'Université de Louvain – Son origine, son histoire, son organisation 1425-1953*. (Brussels: Office de Publicité, 1953), p. 5.

¹⁸ Van der Essen, *L'Université de Louvain*, p. 7.

¹⁹ Van der Essen, *L'Université de Louvain*, p. 14.

²⁰ For a presentation of Baius's ideas, albeit from a Catholic point of view, see F. X. Jansen, *Baius et le Baianisme: Essai théologique* (Brussels: Dewit, 1927), pp. 127-145. Jansen points out that Baius condemned Scholasticism and philosophy and tried to ground all Christian thought on St Augustine. From a Catholic viewpoint Jansen condemns Baius's 'cult' of St Augustine and argues that Catholic doctrine is a 'moderate' form of Augustinianism; see pp. 132-137.

Augustine.²¹ Many of his propositions were condemned by Pope Pius V (1504-1572) in his Bull *Ex omnibus afflictionibus* of 1567, which, however, was interpreted ambiguously due to its failure to mention Michel de Bay as the originator of the condemned ideas.²² In 1580, the new Pope, Gregory XIII (1502-1585), had to republish the condemnation to quell dissent.²³ Yet de Bay's doctrines did not die with this condemnation; on the contrary, it bred a new movement centred on the Bishop of Ypres, Cornelius Jansenius (1585-1638), another graduate and professor of Louvain. Jansenius, who wrote his book *Augustinus* (1640) as a defence of de Bay, was condemned by the papacy in his turn in 1642, despite protest by the university.²⁴

The Louvain school of Augustinian thought drew its doctrines in sharp contrast with those of the Jesuits, who based their views on Thomism and Scholasticism. Thus, when Jesuits Leonard Lessius (1554-1623) and Jean Hamelius (1554-1589) were invited to teach at Louvain University in 1587, the Faculty of Theology protested that their doctrine of predestination and grace was in contrast with the teachings of St Augustine.²⁵ In September 1587, the *Doctrina Lovaniensis* was issued, condemning Lessius's ideas as being semi-Pelagian.²⁶

The conflict became seriously aggravated in 1593, when Jesuits sought to teach philosophy and metaphysics at Louvain.²⁷ Jacobus Jansonius (1547-1625), Henri Cuyckius (1546-1609) and others organised a stiff resistance to the Jesuit projects. This powerful anti-Jesuit faction was highly influential, with ties deep within the Papal curia in Rome.²⁸ Under the pressure of the party, the Pope issued the brief *Accepimus Nuper* during the same year, whereby the Jesuits were forbidden to teach physics and logic, although they were allowed to teach metaphysics and other sciences.²⁹ Archduke Albert

²¹ Nigel Abercrombie, *The Origins of Jansenism* (Oxford: Clarendon Press, 1936), pp. 87-93. On the meaning of concupiscence in St Augustine, see Peter Burnell, 'Concupiscence', in *Augustine throughout the Ages: an Encyclopedia*, ed. by Allan Fitzgerald and John C. Cavadini (Grand Rapids, MI: Wm B. Eerdmans, 1999), pp. 224-227.

²² The contents of the Bull can be found in Appendix I of Jansen's work on Baius, pp. 185-195. Jansen observes that not all of the incriminated passages were actually those of Baius.

²³ E. J. M. Van Eijl, 'La controverse louvaniste autour de la Grace et du libre arbitre à la fin du XVI^e siècle', in *L'Augustinisme à l'ancienne faculté de théologie de Louvain*, ed. by M. Lamberigts and L. Kenis (Leuven: Leuven University Press, 1994), pp. 207-283 (p. 215).

²⁴ Pirenne, *Histoire de Belgique*, III, 46.

²⁵ Van Eijl, 'La controverse louvaniste', pp. 210-211.

²⁶ Van Eijl, 'La controverse louvaniste', pp. 219-222.

²⁷ Bruno Boute, *Academic Interests and Catholic Confessionalisation: the Louvain Privileges of Nomination to Ecclesiastical Benefices* (Leiden: Brill, 2010), pp. 271-313 for an in-depth analysis of the Louvain Jesuit controversies. Boute sees anti-Jesuit resistance stemming mainly from academic politics and privilege. Officially, indeed, the 1596 memorandum emphasised the importance of traditional promotion rituals for the school, rituals that were being put in jeopardy by the Jesuits' separate graduation ceremonies; see p. 295.

²⁸ Boute, *Academic Interests*, pp. 304-306.

²⁹ Boute, *Academic Interests*, p. 275.

eventually allowed the Jesuits to teach philosophy at Louvain, yet this right was again withdrawn in 1617 when Jansenius convinced the court of Spain that the Jesuit views were not orthodox.

Despite the resistance of the academic community, the Belgian Jesuits continued to produce significant scholarship during this period.³⁰ One of the most famous Louvain Jesuits scholars was Martin del Rio (1558-1608), who wrote a large anti-magical treatise, *Disquisitione magicarum libri sex* (1599) and also became embroiled in a conflict on the subject of the authenticity of pseudo-Dionysius with Joseph Justus Scaliger (1540-1609).³¹ His *Disquisitione magicarum* became recognised as one of the most reputed contributions to the analysis of witchcraft.³² Del Rio's reputation in regards to magic determined Van Helmont to attend his Louvain courses, as shall further be shown in the latter's biography.

2.1.2.2. *The Illuminationist Tradition*

Early Christianity had professed an ambiguous view of Greek philosophy, whose methods and views of divinity it condemned. At the same time, early Church Fathers recognized the potency of Greek discourse which they tried to appropriate within the Christian church, adopting many of the ideas of Platonism and Neoplatonism. Theology itself was born at the confluence of Christian thought and Greek metaphysics.

Despite the incorporation of philosophical inquiry into Christian thought, many Christian thinkers of mystical bent distrusted the epistemological value of the faculty of reason, proposing instead an illuminationist path to knowledge.³³ This was a particular characteristic of the German mystical tradition, as affirmed by Meister Eckhart (c. 1260-c.1327), Heinrich Suso (1300-1366), Johann Tauler (c.1300-1361), Mechtilde of Magdeburg (1210-1285) and others. In the later Middle Ages, the movement of *Devotio moderna* originating in the Low Countries expressed the ideals of a simple life of

³⁰ On a survey of Jesuit contributions to knowledge, particularly science, in the early modern Southern Netherlands, see G.H.W. Vanpaemel, 'Jesuit Science in the Spanish Netherlands', in *Jesuit Science and the Republic of Letters*, ed. by Mordechai Feingold (London: MIT Press, 2003), pp. 389-433 (p.393-398).

³¹ On del Rio and his work on magic see P.G. Maxwell-Stuart, 'Introduction', in *Martin Del Rio: Investigations into Magic*, ed. and trans. by P. G. Maxwell-Stuart (Manchester: Manchester University Press, 2000), pp. 1-15 (pp. 2, 7, 8).

³² Maxwell-Stuart, 'Introduction', p. 8.

³³ By 'illuminationist tradition' I am not trying to argue that there was a coagulated current of thought that was advocating such ideals, but am using the term in a very general sense as an approach that expressed doubts about reason as a path to true knowledge and viewed divine inspiration as essential. James Joseph Bono referred to this type of attitude as 'illuminationist epistemology', in *The Word of God and The Languages of Man: Interpreting Nature in Early Modern Science and Medicine*, 2 vols (Wisconsin: University of Wisconsin Press, 1995), I, p. 127.

faith.³⁴ A product of this environment, Bishop Nicholas of Cusa (1401-1464) introduced the idea of 'learned ignorance' into mainstream Catholic thought.³⁵ Yet it was not only Germans that expressed an attraction toward ideas of illuminationist mysticism and simple faith. In Italy and Southern France, the tradition of Franciscanism was drawn to prophecy and similar forms of knowledge through divine inspiration.³⁶ The Jewish Kabbalah also had an impact on Christians through its emphasis on prophecy and mysticism.³⁷ Many Italian Renaissance thinkers were attracted to illuminationist and prophetic ideas. Lodovico Lazzarelli (1447-1500) proposed a 'new revelation' drawn mainly from Kabbalistic sources. He was a disciple of a notorious Hermetic prophet and alchemist, Giovanni Mercurio da Correggio (c.1450-c.1503), who toured Rome and Italy with his message of penitence and the last days.³⁸ In Florence, almost all intellectuals of the city, including Giovanni Pico della Mirandola (1463-1494), rallied behind Savonarola (1452-1498), who proffered an anti-philosophical and anti-rational stance. Pico's nephew, Gianfrancesco Pico (1470-1533), continued Savonarola's anti-rationalism, concentrating his attack particularly against Aristotle.³⁹

The illuminationist argument also found solid support in early modern Germany, being upheld by Johannes Reuchlin (1455-1522) in his two books, *De Verbo Mirifico* (1494) and *De Arte Cabbalistica* (1517). According to Reuchlin, reason cannot reach the substance of things and may in fact hinder divinely bestowed insight.⁴⁰ Another influential illuminationist treatise was the *De incertitudine et vanitate scientiarum* (1526) by Heinrich Cornelius Agrippa. Agrippa analysed each art and science known to man and dismissed them all as mere vanity. Instead, he proposed simple belief in a manner not unlike Nicholas of Cusa, Erasmus (1466-1536), Savonarola or

³⁴ The most famous product of *Devotio moderna* was Thomas à Kempis' work *Imitation of Christ*, which Van Helmont was to cite on several occasions.

³⁵ Donald Duclow, *Masters of Learned Ignorance: Eriugena, Eckhart, Cusanus* (Aldergate: Ashgate, 2006), particularly pp. 307-325.

³⁶ Marjorie Reeves, *The Influence of Prophecy in the Later Middle Ages* (Oxford: Clarendon Press, 1969), pp. 175-228. The link between the Franciscan prophecy and alchemy is most evident in the fascinating figure of Johannes de Rupescissa, which has been studied by Leah deVun, *Prophecy, Alchemy and the End of Time: John of Rupescissa in the Later Middle Ages* (New York, NY: Columbia University Press, 2009).

³⁷ These traits were particularly prominent in Italian Kabbalah; see Moshe Idel, *Kabbalah in Italy (1280-1510): A Survey* (New Haven, CT: Yale University Press, 2011).

³⁸ On da Correggio, see Lodovico Lazzarelli, *The Hermetic Writings and Related Documents*, ed. by Wouter J. Hanegraaff and Ruud M. Boothorn (Tempe, AR: Arizona Center for Medieval and Renaissance Studies, 2005), pp. 22-44, 311-335.

³⁹ Richard Henry Popkin, *The History of Skepticism from Erasmus to Spinoza* (Berkeley, CA: University of California Press, 1979), p. 24.

⁴⁰ Bono, *The Word of God*, pp. 126-128.

Gianfrancesco Pico. It is not surprising that, just like the Italian thinkers, he believed in the gift of prophecy to illuminate that which the human knowledge could not.⁴¹

In line with this current of thought, Theophrastus Paracelsus (1493-1541) also believed in the virtue of those poor in spirit.⁴² He strongly rejected any appeal to authority, even the revered ancients, in favour of direct experience.⁴³ His approach found strong support amongst the Paracelsian alchemical philosophers of the late sixteenth century. The early Paracelsian Alexander von Suchten (c. 1520-c.1576) emphasised illumination as the source of knowledge of God, Man, and Nature.⁴⁴ The Danish physician Petrus Severinus (1540/2-1602) also exhorted physicians to base their ideas on experience rather than traditional authorities.⁴⁵ The German physician Oswald Croll (1560-1608) incorporated a large amount of folk medicine into his *Basilica chymica* (1609).⁴⁶ At the turn of the seventeenth century, Michael Sendivogius's *Novum lumen chymicum*, as well as the anonymous 'Waterstone of the Wise' also emphasised the importance of divine illumination in alchemy.⁴⁷

The Paracelsian support of illuminationist ideas cannot be divorced from similar medieval alchemical views. For instance, Pseudo-Lull (fl. fourteenth century) and Petrus Bonus of Ferrara (fl. fourteenth century) argued that the knowledge of the Stone is only given through divine inspiration.⁴⁸ Van Helmont chose to draw his arguments not only from the Paracelsians, but also from medieval alchemical tradition and Renaissance philosophers.⁴⁹

⁴¹ Heinrich Cornelius Agrippa, *Opera omnia*, 2 vols (Lyon, 1660), II, 312: 'Quoties ergo de sensu Scripturae pugna est, non propterea humano ingenio tribuenda est eius interpretatio, sed dono spiritus et prophetiae, ad quos nos hortatur Paulus, ut videlicet non solum linguis loquamur, sed et prophetemus, hoc est, interpretemur sensum Scripturarum ex Spiritu Sancto'.

⁴² Webster, *From Paracelsus to Newton: Magic and the Making of Modern Science* (Cambridge: Cambridge University Press, 1982), p. 84.

⁴³ Debus, *The Chemical Philosophy*, p. 51.

⁴⁴ Carlos Gilly, 'Paracelsianism Brings Forth a Fine Hermetical Treatise: Suchten's *De Tribus Facultatibus*', in *Magic, Alchemy and Science, 15th – 18th Centuries: The Influence of Hermes Trismegistus*, ed. by Carlos Gilly and Cis van Heertum, 2 vols (Florence: Bibliotheca Philosophica Hermetica and Biblioteca Nazionale Marciana Venezia, 2002), I, 193-198 (pp. 195-196).

⁴⁵ The whole exhortation runs: 'you should sell your lands, your houses, your clothes and your jewelry, burn up your books. On the other hand, buy yourselves stout shoes, travel to the mountains, search the valleys, the deserts, the shores of the sea and the deepest depressions of the earth...' This is Debus's translation, *The Chemical Philosophy*, p. 70, of Petrus Severinus, *Idea medicinae philosophicae* (Basel: Henricpetri, 1571), p. 59.

⁴⁶ Debus, *The Chemical Philosophy*, p. 123.

⁴⁷ Michael Sendivogius, 'De Sulphure, altero naturae principio' in *Novum lumen chymicum* (Geneva: Ioan de Tournes, 1628), pp. 109-202 (p. 166); 'The Waterstone of the Wise', in *The Hermetic Museum, Restored and Enlarged*, trans. by Arthur Edward Waite (Los Angeles, CA: S. Weiser, 1973), p. 78.

⁴⁸ 'Raymundi Lulli Theorica & Practica', in *Theatrum Chemicum*, 6 vols (Strasbourg: Lazarus Zetzner, 1659), IV, 1-171 (p. 47, 29); Petrus Bonus of Ferrara, *The New Pearl of Great Price*, ed. by Janus Lacinius, trans. by Arthur Edward Waite (New York, NY: Arno Press, Inc, 1974), p. 144.

⁴⁹ See below, chap. 4.3. On Man.

There was also kinship between divine inspiration and the divine Grace of Protestant doctrine. Both emphasised this God-given gift that illuminated and transformed one's life. Hence Paracelsian illuminationist ideas both drew upon and made an impact on the Protestant fringe, such as proto-pietistic Lutherans, Spiritualists and Radical reformers (the so-called 'Schwärmer' or 'enthusiasts').⁵⁰ For instance, Pastor Valentin Weigel (1533-1588) combined Protestant thought with Paracelsian theosophy to create a vision of the eternal presence of Christ in the human soul.⁵¹ Influenced by Weigel, Johann Arndt (1555-1621) taught that the Holy Spirit, rather than the Lutheran dogma was the only guarantee of salvation. However, the appeal of Paracelsianism to radical Protestant movements should not obscure the fact that there were plenty of Catholics and mainstream Protestants who were interested and attracted by alchemy. The lure of alchemical knowledge went beyond confessional boundaries.⁵²

The illuminationist tradition, with its general scepticism of human reason, may sound deeply pessimistic. However, its upholders never intended to deny the human ability to reach truth. Instead, they believed that the higher *intellectus* or *mens* was the only one that could gain access to divine truth. The *mens*, however, was much harder to reach than reason; it often required a long, arduous spiritual journey not everyone was prepared to undertake, or was perhaps even called to make.

⁵⁰ Paracelsus himself, even though never renouncing Catholicism, was often viewed as a radical theologian; see Charles Webster, *Paracelsus: Medicine, Magic and Mission at the End of Time* (London: Yale University Press, 2008), pp. 169-209; George Huntston Williams deemed Paracelsus a proto-Spiritualist; *The Radical Reformation*, 3rd edition (Kirkville, MI: Sixteenth Century Journal Publishers, 1992), pp. 195-198, 325-327. Trevor-Roper argued that by the 1600s Paracelsianism had become 'an ill-defined Protestant heresy' by being mixed with Weigelians and Schwenckfeldians; see Hugh Trevor-Roper, 'Paracelsianism Made Political, 1600-1650', in *Paracelsus: the Man and His Reputation, His Ideas and their Transformation*, ed. by Ole Peter Grell (Leiden: Brill, 1998), pp. 119-135 (p. 121), while Carlos Gilly signalled the appearance of the Paracelsian 'Theophrastia sancta' as a new religion; 'Theophrastia sancta: Paracelsianism as a Religion in Conflict with the Established Churches', in *Paracelsus: the Man and His Reputation*, ed. by Ole Peter Grell, pp. 151-187 (pp.161-165). However, the attraction of Paracelsian tenets for radical believers does not mean that Paracelsianism as a whole must be described as a radical Protestant movement.

⁵¹ Urszula Szulakowska, *The Alchemy of Light: Geometry and Optics in Late Renaissance Alchemical Illustration* (Leiden: Brill, 2000), p. 80.

⁵² J.B. Van Helmont, with his staunch Catholic attitude, is a case in point; but we can also consider other Catholic alchemists like Pierre Jean Fabre or Sir Kenelm Digby. The alchemical interest of the Jesuit Father Francois d'Aguillon, mentioned further, is also revealing. Recently, Bruce Janacek has made a compelling case that in England, at least, alchemy was in fact popular particularly with conservative Anglicans rather than dissenting Puritans as it had been thought until now; see his *Alchemical Belief: Occultism in the Culture of Early Modern England* (University Park, PA: Pennsylvania University Press, 2011).

2.1.2.3. *The Rise of Eschatology and Prophecy*

As an outcome of the Renaissance interest in non-rational forms of knowledge, the volume of prophecies exploded toward the end of the fifteenth century. The Reformation itself may have been influenced by a tide of prophecies and heightened non-rational expectations of millennialist change. Many persons, particularly of Protestant persuasion, lived with the expectation of the End Time and Last Judgment. As Robin Barnes has pointed out, Luther held a strong belief in the Second Coming, seen in apocalyptic terms of a complete destruction and rebirth of the world.⁵³ By defining the Pope as Antichrist, the Reformers imagined themselves implicated in the titanic struggle foreseen by the Book of Revelation.⁵⁴

The religious effervescence of the period was supported and spurred on by prophecies. There were several kinds of prophecies in the epoch: astrological prophecies, 'new' prophecies and interpretations of old, usually Biblical prophecies. The most popular was astrological prophecy.⁵⁵ However, despite the vogue of astrology in the period, many philosophers did not agree with it. Marsilio Ficino (1433-1499) had an ambivalent view of it, while Pico and his nephew Gianfrancesco Pico rejected it outright as potentially damaging the doctrine of free will. For his part, Paracelsus did not reject astrology in itself, but he condemned its use for regular prognostication. He carefully distinguished between the natural order of the cosmos, and the supernatural signs of God. Natural events could be counteracted by human beings' free will:

we should mobilize our inner powers, so that we are not directed by the heavens but by our wisdom. For, if we forget this wisdom, we are like beasts and shall live as reeds in the water.⁵⁶

However, it is wrong to think that Paracelsus rejected prophecy. Much to the contrary, Paracelsus believed that he was living in a period where the natural order had already been perturbed by the will of God, and that the last days were fast approaching.⁵⁷ In 1536, he published a prophecy in which he proclaimed the impending

⁵³ Robin Bruce Barnes, *Prophecy and Gnosis: Apocalypticism in the Wake of the Lutheran Reformation* (Stanford, CA: Stanford University Press, 1988), pp. 37-38.

⁵⁴ Barnes, *Prophecy and Gnosis*, pp. 42-44.

⁵⁵ Barnes, *Prophecy and Gnosis*, p. 141.

⁵⁶ Paracelsus, 'Auslegung zum Lichtenberger', in *Sämtliche Werke: Abteilung, medizinische, naturwissenschaftliche und philosophie Schriften*, 14 vols, ed. by Karl Sudhoff (Munich and Berlin: Oldenbourg, 1922-1933), I, 7, 477-530; translation belongs to Webster, *From Paracelsus to Newton*, p. 23.

⁵⁷ Webster, *From Paracelsus to Newton*, pp. 21-23.

mutation of the world.⁵⁸ He predicted, rather cautiously, that 1560 would bring about the final battle with Antichrist.⁵⁹ The final war would usher in a new golden age of joy and innocence.⁶⁰

As Norman Cohn has shown, in early modern Europe expectations were becoming less apocalyptic and more millennarian. An active underground current of thought emphasised not only the possibility but the desirability of a return to a mythical Golden Age.⁶¹ This belief was also embraced by several Paracelsian sympathisers.⁶² Paracelsus, for instance, claimed that the transition toward a new Golden Age had already begun during his lifetime.⁶³ This view was subsequently shared by several Paracelsian supporters, such as the physician and astrologer Helisäus Roslin (1545-1616).⁶⁴ At the turn of the seventeenth century, Carlos Gilly argues, such opinions even prompted the creation of a new religion, termed 'Theophrastia sancta' and based upon the unpublished theological tracts of Paracelsus.⁶⁵ Amongst its adepts Gilly emphasises Benedict Figulus (1567-1624), Karl Widemann (1555-1637) and Adam Haslmayr (ca 1560-1630).

2.1.3. Natural Philosophy: the Downfall of Scholasticism and the Rise of New Philosophies

2.1.3.1. The Renaissance Philosophy and the Prisca Theologia Framework

In the thirteenth-century Christian West, the translation of Aristotle and his Arab commentators into Latin had sparked an intellectual revolution that resulted in the Scholastic synthesis. Led by St Thomas Aquinas, Albertus Magnus (1193/1206-1280) and others, the pagan Aristotelian writings were reconciled with the Christian faith in a union that was to last for more than two centuries. By the mid-1400s, however, Scholastic energy was subsiding, leaving room for new speculation, such as that of

⁵⁸ Paracelsus, 'Die Prognostikation auf 24 zukunfftige Jahre', in *Sämtliche Werke*, I, 10, 580-620 (pp. 580-583).

⁵⁹ Webster, *From Paracelsus to Newton*, p. 24.

⁶⁰ Webster, *From Paracelsus to Newton*, p. 24.

⁶¹ Norman Cohn, *The Pursuit of the Millennium* (London: Paladin, 1970), particularly pp. 198-271.

⁶² Webster, *From Paracelsus to Newton*, p. 48; Barnes, *Prophecy and Gnosis*, pp. 34-35.

⁶³ Paracelsus, 'Psalmen Kommentar', in *Sämtliche Werke*, ed. by Karl Sudhoff, II, 4, 211-295 (pp. 294-295); Webster, *From Paracelsus to Newton*, p. 50.

⁶⁴ Gilly, 'Theophrastia sancta', pp.161-165. For the ideas of Roslin, see also Giancarlo Zanier, *Medicina e filosofia tra '500 e '600* (Milan: Franco Angeli, 1983), pp. 39-60.

⁶⁵ Gilly, 'Theophrastia sancta', p. 166.

Nicholas of Cusa. The Platonic and Neoplatonic strand of Christian thought, which had not disappeared during the Middle Ages, became revitalised with new translations of Plato, Plotinus and the *Corpus Hermeticum* toward the end of the fifteenth century. The pioneering work of Marsilio Ficino and his circle resulted in the rise of a new, Renaissance philosophy.

Perhaps one of the most recognisable features of this philosophy was its belief in the *prisca theologia*, which gave birth to other sister concepts such as *prisca sapientia*, *pia philosophia* and the perennial philosophy.⁶⁶ The *prisca theologia* can be defined as the theory of a continuous chain of sacred knowledge originating from the earliest of times.⁶⁷

The idea of the *prisca theologia*, given a new impetus in the Renaissance by the Greek philosopher George Gemisthos Plethon (1355/1360-1454) was upheld by the Florentine philosopher Marsilio Ficino.⁶⁸ For him and his followers, the *prisca theologia* was an ancient wisdom-tradition whose culmination could be found in Christianity.⁶⁹ Despite scholarly arguments related to the ‘paganism’ or ‘secularism’ of the Renaissance philosophers, the *prisca theologia* was firmly Christian.⁷⁰ Renaissance thinkers did not intend to subvert Christianity by replacing it with philosophy or a new

⁶⁶ The only comprehensive analysis of the *prisca theologia* belongs to D.P. Walker, *The Ancient Theology* (London: Duckworth, 1972) but he did not see it from a theological point of view. See also Charles Schmitt, ‘*Prisca Theologia e Philosophia Perennis*: due temi del Rinascimento italiano e la loro fortuna’, in *Il pensiero italiano del Rinascimento e il tempo nostro: Atti del V Convegno Internazionale di Centro di studi umanistici, Montepuciano, 1968* (Florence: Leo S. Olschki, 1970), pp. 211-236.

⁶⁷ For a good summary of the *prisca theologia* and associated terms in Renaissance and early modern Europe, see also Wouter J. Hanegraaff, ‘Tradition’, in *Dictionary of Gnosis and Western Esotericism* ed. by Wouter J. Hanegraaff (Leiden: Brill, 2006), pp. 1125-1135 (pp. 1126-1130). The term *prisca theologia* was coined by Marsilio Ficino himself; see *Opera omnia* (Basel: HenricPetri, 1576), p. 1836; for a commentary see also Ilana Klutstein, *Marsilio Ficino et la theologie ancienne: Oracles Chaldaïques, Hymnes Orphiques et Hymnes de Proclus* (Florence, Olschki, 1987).

⁶⁸ Wouter Hanegraaff, ‘The Pagan Who Came from the East: George Gemistos Plethon and Platonic Orientalism’, in *Hermes in the Academy* (Amsterdam: Amsterdam University Press, 2009), pp. 33-51 (pp. 39-41). See also Hanegraaff, ‘Tradition’, p. 1127.

⁶⁹ On the religious value of Ficino’s concept of *prisca theologia*, see Amos Edelheit, *Ficino, Pico and Savonarola: The Evolution of Humanist Theology 1461/2-1498* (Leiden: Brill, 2008), pp. 205-210. Edelheit has shown that Ficino’s rescue of the ‘ancient theologians’ was part of his programme to return Christianity to its true roots and not to cause a pagan revival; pp. 205-206; 230-232. See also Cesare Vasoli, *Quasi sit Deus: Studi su Marsilio Ficino* (Lecce: Conte Editore, 1999), pp. 42-48, who observes Ficino’s intention of reunifying religion with wisdom and the rebirth of a ‘philosophical religion’. On similar intentions for Jacques Lefèvre d’Etaples, Charles de Bovelles and Jean Fernel, see also Bono, *The Word of God*, pp. 95-96; as he points out, Lefèvre’s reform of Aristotle ‘was closely tied [...] to the reform and vitalization of religion and to a renewed spirituality grounded ultimately in the Bible and its interpretation’, p. 96.

⁷⁰ Frances Yates, *Giordano Bruno and the Hermetic Tradition* (London: Routledge & Kegan Paul, 1964), particularly chapters 1-5, or Edgar Wind’s appreciation of Ficino as ‘neo-pagan thinker’, in *The Pagan Mysteries in the Renaissance* (New York, NY: Norton, 1958), p. 68. Giordano Bruno’s ideas of a new ‘Hermetic religion’ were an exception rather than the rule in the Renaissance world.

religion, but to celebrate the wisdom of all ages as prefiguring the supreme Christian one.⁷¹

For Renaissance philosophers, the concept of *prisca theologia* also offered an avenue to the unification of knowledge: by encompassing pre-Christian and post-Christian speculation it could equally include theology, metaphysics and physics. The guiding thread was sacred knowledge, and this could be found not only in supernatural realms, but in nature as well. Ficino believed that ancient philosophers and religious figures did not differentiate between the practice of natural investigation and supernatural revelation, and that the highest human ideal was represented by the priest-philosopher, who embodied both.⁷² Hence *prisca theologia* could be seen as facilitating the reformation of natural philosophy in accordance with Christian doctrines.

Yet, precisely because it was a 'pious' activity, the unearthing of the original Pythagoras, Plato, Aristotle or Moses cannot be seen simply as the work of curious antiquarians. The *prisca theologia* supporters were looking to 'reform' Christianity by including in its substance the practical investigation of the natural world.⁷³ Hence many pious adepts of *prisca theologia* were also supporters of natural inquiry, and may be described in this sense as Christian natural philosophers.⁷⁴ The adepts of the *prisca theologia* expressed interest in magic, alchemy, astrology, astronomy, medicine or Pythagorean geometry. These were all seen as forms of knowledge that ennobled the practitioner by re-directing his attention to the divine.

2.1.3.2 The Rise and Criticism of Learned Magic

The adepts of the *prisca theologia* were intent on the discovery of God in nature. Inspired by Plato's *Symposium*, Ficino portrayed God's participation in Nature as a ray of light, not unlike that of the Sun, which descends the ladder of Creation and endows it with ideas, reasons, *semina* and forms.⁷⁵ The divine ray, which is pure love, is hence the root of the universe and the fundamental divine principle.⁷⁶ This was, in fact, 'natural magic', the natural instinct of coming together or breaking apart that creates visible

⁷¹ Lodovico Lazzarelli, 'Crater Hermetis', in *The Hermetic Writings and Related Documents*, ed. by Wouter J. Hanegraaff and Ruud M. Boothorn (Tempe, AR: Arizona Center for Medieval and Renaissance Studies, 2005), pp. 165-269 (p. 173). We should not construe this to mean that Lazzarelli was less of an ardent Christian, since he is always keen on emphasising the supremacy of Christ.

⁷² Edelheit, *Ficino, Pico and Savonarola*, pp. 210-219.

⁷³ See for instance the example of Jean Fernel, in Bono, *The Word of God*, p. 95.

⁷⁴ See the examples of John Dee, Tommaso Campanella, Pierre Gassendi and even Isaac Newton.

⁷⁵ Marsilio Ficino, *Commentary on Plato's Symposium on Love*, trans. by Sears Jayne (Dallas, TX: Spring Publications, 1985), p. 51.

⁷⁶ Joao J. Vila-Cha, *Amor Intellectualis? Leone Ebreo (Judah Abravanel) and the Intelligibility of Love* (Braga: Publicações de Faculdade de Filosofia de Braga, 2006), p. 747.

existence. In this framework, the magus was a privileged human being who was not only capable of distinguishing the intricate and hidden links in nature, but also of manipulating them.

In this sense, learned magic was fundamentally tied with a humanist vision of man.⁷⁷ The Judaeo-Christian view of man's resemblance to God was reaffirmed in powerful ways, and facilitated the rise of magic and prophecy seen as godlike activities.⁷⁸ Magic, as well as prophecy, were often perceived as uncovering the latent powers of man, subdued by the Fall. Natural magic confined itself to the lower plane; however, for some Renaissance philosophers, magic had to aim beyond that: to the heavens (as in celestial magic) or even to the realm of angels or the *primum mobile* (as in angelic, religious or ceremonial magic). The systematisation was first carried out by Henricus Cornelius Agrippa, in his *De occulta philosophia*. Agrippa placed Ficinian natural magic at the bottom of a ladder of magical systems, followed above it by the celestial magic of Johannes Trithemius (1462-1514), based on Pythagorean mathematics. The highest, however, was religious magic, based mainly on the Cabalistic magic introduced by Pico della Mirandola and developed by Johannes Reuchlin and Francesco Giorgi.⁷⁹

Following the synthesis of Agrippa, John Dee (1527-1608/9) described magic as a combination of natural, celestial and ceremonial magic.⁸⁰ Dee saw as a culmination of all knowledge the summoning of angels, a practice which was rooted in the medieval pseudo-Solomonic theurgy of the grimoires.⁸¹ Toward the end of the sixteenth century, Giordano Bruno (1548-1600) would expand on Agrippa and Dee's analysis to distinguish nine types of magic.⁸²

Not all philosophers of the magical tradition, however, would have agreed with Agrippa, Dee and Bruno's vision, preferring to confine themselves to natural magic. Such was Giambattista della Porta (1535?-1615), whose compendium, *Magia naturalis*

⁷⁷ On humanism in the Renaissance see for instance Charles Trinkaus, *In Our Image and Likeness: Humanity and Divinity in Italian Humanist Thought*, 2 vols (London: Constable, 1970).

⁷⁸ György Szönyi has proposed the term 'exaltatio' to describe the Renaissance belief in 'deification', according to which 'man – with the help of certain techniques, including magic – could bring himself into such a state that enables him to leave the body and seek the company of the Deity'; *John Dee's Occultism: Magical Exaltations through Powerful Signs* (Albany, NY: SUNY Press, 2004), p. 34.

⁷⁹ Yates, *Giordano Bruno*, p. 140.

⁸⁰ Nicholas Clulee, *John Dee's Natural Philosophy: Between Science and Religion* (London: Routledge, 1988), p. 59.

⁸¹ Deborah Harkness, *John Dee's Conversations with Angels* (Cambridge: Cambridge University Press, 1999), pp. 1-6.; see also Stephen Clucas, 'John Dee's Angelic Conversations and the *Ars Notoria*: Renaissance Magic and Medieval Theurgy', in *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. by Stephen Clucas (New York: Springer-Verlag, 2008), pp. 231-274 (esp. pp. 244-251).

⁸² Ioan P. Culianu, *Eros and Magic in the Renaissance* (Bucharest: Polirom, 2003), p. 202.

(1558, 1589), had a major success in the latter part of the sixteenth century.⁸³ For Porta, magic included the practice of alchemy, especially distillation, medicine, astrology and mathematics.⁸⁴

Like many other philosophers of the Renaissance, Paracelsus also employed the framework of natural magic. Scholars have identified Paracelsus as an exclusively natural magus, for whom ‘the intervention of the magus in nature was seen to be successful by virtue of his knowledge of natural processes, skill in manipulation, and directions of the forces inherent in nature’.⁸⁵ However, it is important to realise that several treatises of higher magic appeared under his name, including *De occulta philosophia*, *Archidoxis magica* and *Liber Azoth*. Paracelsians such as Alexander von Suchten and Oswald Croll regarded these works as genuine, and followed in the tradition of supporting both natural and higher magic.⁸⁶ As this study will demonstrate, Van Helmont initially shared in this framework as well.⁸⁷

Concomitantly with the rise of learned magic in the sixteenth century, Church authorities were becoming more and more averse to anything resembling witchcraft or demonic magic. As Keith Thomas has shown, magical practices had been condemned but generally tolerated in the medieval Church.⁸⁸ Yet this toleration was coming to an end toward the end of the fifteenth century. The initial target was popular magic, which was now more vigorously denounced as witchcraft and cast as heresy.⁸⁹

Yet the condemnation of magic was not confined to its popular forms. The rise of learned magic since Ficino and Agrippa alarmed Church authorities. There were several reasons for this: on one hand, learned magic had always been held in suspicion by the Church, despite interest in the field by clergymen.⁹⁰ Secondly, Agrippa’s virulent attacks on the Inquisition in *Adversus lamiarum inquisitores* in 1533 attracted the ire of

⁸³ John Baptist Porta, *Natural Magick* (London: Young and Speed, 1658), book I, chapter 2; William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton: Princeton University Press, 1994), pp. 222-229.

⁸⁴ Porta, *Natural Magick*, book I, chapter 3.

⁸⁵ Webster, *From Paracelsus to Newton*, p. 57.

⁸⁶ Gilly, ‘Paracelsianism Brings Forth’, pp. 195-196.

⁸⁷ See, particularly, chap. 2.2.1 below.

⁸⁸ Thomas, *Religion and the Decline of Magic*, p. 46.

⁸⁹ In the 1430s, the idea of witches assembling in a ‘sabbath’ to serve Satan was first proposed, see Bengt Ankarloo, Stuart Clark and William Monter, *The Period of Witch Trials* (London: Athlone Press, 2002), pp. 122-123.

⁹⁰ The case of the abbot Trithemius, himself accused of practicing illicit magic, is not singular. Frank Klaasen points out that clerics, and particularly monks, were the largest collectors of magical texts; ‘English Manuscripts of Magic, 1300-1500’, in *Conjuring Spirits: Texts and Traditions of Medieval Ritual Magic*, ed. by Claire Fanger (University Park, PA: Pennsylvania University Press, 1998), p. 7. As Richard Kieckhefer has also pointed out, ritual magic was attractive to many clerics in medieval Europe; *Magic in the Middle Ages* (Cambridge: Cambridge University Press, 1987), particularly pp. 151-172.

the Catholic Church.⁹¹ Thirdly, Protestants typically regarded any form of magic as smacking of popery and heresy. Johann Weyer (1515-1588), the Lutheran disciple of Agrippa, firmly condemned the practice of learned magic. The scathing attack of the Reformed theologian Thomas Erastus (1524-1583) on Paracelsus was part of 'his Protestant desire to defend a "pure" and unadorned Christianity'.⁹²

The proponents of natural magic defended their beliefs in various ways. Some believed that demons could be both benevolent and malevolent, or even neutral.⁹³ Others maintained that many of the occult forces that were associated with demons were in fact natural and demon-free.⁹⁴ Paracelsus also believed that the force whereby witches could do evil lay in the natural force of imagination rather than demons, this view being shared by many Paracelsians including Van Helmont.⁹⁵

2.1.3.3. *The Downfall of Scholasticism and Scholastic Aristotle*

Many proponents of the Renaissance *prisca theologia*, such as Pico and Lefèvre d'Etaples, saw Aristotle as one of the philosophers who continued the chain of revelation stretching back to Moses or Hermes Trismegistus. Thus, the early promoters of *prisca theologia* did not necessarily reject Aristotle, but they did diminish the supreme position he held under the scholastic synthesis. The Renaissance programme of re-evaluating Aristotle as part of the *prisca theologia* lineage may or may not have openly intended to reduce his stature, but it had this effect.⁹⁶

At the same time, the late sixteenth century saw the dramatic rise of anti-Aristotelianism. It appears that the anti-Aristotelian impetus was prompted primarily by religious concerns; intellectuals such as Martin Luther, Gianfrancesco Pico and Paracelsus condemned Aristotle's 'paganism'.⁹⁷ The religious condemnation of Aristotle had not lost its force by the early seventeenth century, being upheld by

⁹¹ Paola Zambelli, *White Magic, Black Magic in the European Renaissance* (Leiden: Brill, 2007), p. 137.

⁹² Bono, *The Word of God*, p. 251.

⁹³ Webster, *From Paracelsus to Newton*, pp. 78-79, Andrew Weeks, *Paracelsus: Speculative Theory and the Crisis of the Early Reformation* (Albany, NY: SUNY Press, 1997), p. 166.

⁹⁴ Porta, for instance, considered that 'natural magic would also eradicate superstitions, not by suppressing them, but by giving them rational, scientific foundations'; Eamon, *Science and the Secrets of Nature*, p. 204. For a discussion on the differences between demonic and natural magic, see also Nicolas Weill-Parot, 'Astral Magic and Intellectual Changes (Twelfth-Fifteenth Centuries): "Astrological Images" and the Concept of "Addressative" Magic', in *The Metamorphosis of Magic from Late Antiquity to the Early Modern Period*, ed. by Jan N. Bremmer and Jan R. Veenstra (Leuven: Peeters, 2002), pp. 167-188 (esp. p. 169).

⁹⁵ Webster, *From Paracelsus to Newton*, p. 81.

⁹⁶ Edelheit believes that *prisca theologia* was indeed 'intended to replace the Aristotelian metaphysics that had played a dominant role in scholastic theology'; p. 206. This may have been Ficino's intention, but not all *prisca theologia* adepts concurred with this.

⁹⁷ Weeks, *Paracelsus: Speculative Theory*, pp. 15, 155-156.

Tommaso Campanella and Van Helmont himself.⁹⁸ The Christian argument against Aristotle was later complemented by philosophical questioning. In philosophy, anti-Aristotelian stances were taken by Bernardino Telesio (1509-1588), Francesco Patrizi (1529-1597) and Petrus Ramus (1515-1572), and were complemented in the early seventeenth century by Francis Bacon and Galileo Galilei.⁹⁹ These critics of Aristotle saw Aristotle and Scholasticism as naturally linked and incapable of accounting for the complexity of the world. At the centre of the philosophical anti-Aristotelian campaign was the concept of occult qualities, which Aristotelians had never quite solved satisfactorily.

As Hutchinson puts it, ‘occult’ was an Aristotelian term that denoted both ‘insensible’ and ‘unintelligible’.¹⁰⁰ Aristotelian scholasticism was exclusively focussed on the senses as the only sources of knowledge. Most commonly, Scholastics tended to deny existence of certain occult qualities altogether, or, if forced to acknowledge their existence, they would frame them as ‘unintelligible’, or not worthy of investigation.¹⁰¹ Yet the scholastic ‘explaining away’ of occult qualities became more unsatisfactory with the rising experimentalism of the Renaissance. Natural philosophers, especially the Paracelsians, endeavoured to show that numerous occult qualities actually existed naturally, including the magnetic force that attracted the lodestone to the iron, the action of medicines or poisons in the body or the chemical transformations in the laboratory.

2.1.3.4. The Rise of the New Alchemical Philosophy: Paracelsus and the Paracelsians

The gradual demise of Scholastic inquiry in the sixteenth century left room for the affirmation of new philosophies and ideas. A philosophy that emerged to fill the power vacuum was Paracelsian alchemy. Alchemy was, of course, nothing new to the Renaissance: it had its origins in the medieval times and, for the most part, it had co-habited more or less successfully with Scholasticism. Yet its ideas were never part of mainstream Scholastic thought, and had mostly survived as a practice that had an ambiguous status in the Middle Ages.

Nowadays, alchemy is viewed mainly through the lens of *chrysopoeia*, or the art of transmuting base metal into gold. In fact, while most alchemists were generally

⁹⁸ On Campanella’s vigorous criticism of Aristotle, see John M. Headley, *Tommaso Campanella and the Transformation of the World* (Princeton, NJ: Princeton University Press, 1997), pp. 147-161.

⁹⁹ Bouwsma, *The Waning of the Renaissance*, pp. 43-44.

¹⁰⁰ Keith Hutchinson, ‘What Happened to Occult Qualities in the Scientific Revolution?’ *Isis*, 73: 2 (1982), 233-253 (p. 233).

¹⁰¹ Hutchinson, ‘What Happened to Occult Qualities?’, p. 233.

believers of the idea of metallic transmutation, not all were actually interested in carrying it out. In fact, as Chiara Crisciani and Michela Pereira have pointed out, medical alchemy had become much more popular than *chrysopoeia* by 1400.¹⁰² Paracelsus's views originated from this less-researched branch of alchemists that emphasised its medical uses.¹⁰³ In parallel, he also drew upon a rich late medieval tradition that viewed alchemy as a religious or sacred philosophy.¹⁰⁴

Paracelsus was foremost a physician who rejected the traditional medical framework, drawn from the work of Galen. Instead of traditional Scholastic books, he preferred to draw knowledge from 'experience' and folk practices.¹⁰⁵ Yet Paracelsus was not interested only in medicine; instead, he sought a comprehensive view of the world that was rooted in Christian truth and included natural knowledge and keen observation.¹⁰⁶ He advocated the unity of natural knowledge, centred on the providential figure of the physician, perhaps influenced by Ficino's idea of the priest-philosopher.¹⁰⁷ According to his philosophy, the physician had to base his knowledge on four pillars: alchemy, philosophy, astronomy and the virtues (or ethics).¹⁰⁸

Yet Paracelsus's speculations did not stop here; he went beyond the realm of medicine to posit the unification of philosophy and religion.¹⁰⁹ His later writings, particularly *Astronomia magna*, demonstrate his valiant attempt to achieve a unification

¹⁰² Chiara Crisciani and Michela Pereira, *L'Arte del Sole e della Luna: Alchimia e filosofia nel Medioevo* (Spoleto: Centro Italiano di Studi sull'Alto Medioevo, 1996), p. 72. See also the helpful English commentary made by Chiara Crisciani in 'From the Laboratory to the Library: Alchemy according to Guglielmo Fabri', in *Natural Particulars: Nature and the Disciplines in Renaissance Europe*, ed. by Anthony Grafton and Nancy Siraisi (Cambridge, MA: MIT Press, 1999), 295-319 (p. 295): 'In the history of Latin alchemy, much remains to be learned about the period from John of Rupescissa to Paracelsus. In particular, fifteenth-century alchemical texts, which include both examples of alchemical research and assessments of alchemy, have been among the least studied by historians. Yet these are precisely the texts that may be expected to illuminate the process whereby the three major shifts in emphasis that characterized alchemy between the end of the Middle Ages and the early modern period were disseminated and received. These changes were the relative discredit into which transmutatory alchemy had fallen, the increasing importance of therapeutic doctrines and goals in the alchemy of the elixir and fifth essence, and the emergence in alchemical literature of linked alchemical and religious themes that do not always refer to work in the laboratory'.

¹⁰³ This was already noted by Johann Heinrich Alsted in the early seventeenth century; as Howard Hotson shows, Alsted believed that Paracelsians drew their teachings from Raymond Lull and Arnald of Villanova; Howard Hotson, *Johann Heinrich Alsted (1588-1638): Between Renaissance, Reformation and Universal Reform* (Oxford: Oxford University Press, 2000), p. 92.

¹⁰⁴ For more on this, see below, chapter 3.9. See also the Crisciani's comments above: it appears that medical alchemy had an affinity with the development of religious themes in alchemy, but this needs to be further substantiated by research.

¹⁰⁵ Weeks, *Paracelsus: Speculative Theory*, p. 7.

¹⁰⁶ Debus, *The Chemical Philosophy*, p. 61.

¹⁰⁷ Pagel, *Paracelsus* (Basel: Karger, 1982), pp. 222-223.

¹⁰⁸ Paracelsus, 'Das Buch Paragranum', in *Paracelsus: Essential Readings*, ed. by Nicholas Goodrick-Clarke (Wellingborough: Aquarian Press, 1990), pp. 71-76 (pp. 72-73).

¹⁰⁹ This is further analysed in 3.4 on the influence of Paracelsus on Van Helmont.

of knowledge through the creation of a religious philosophy.¹¹⁰ As Webster has argued, ‘Paracelsus repeatedly insisted that the “philosophical” (scientific and medical) and “theological” (religious, ethical and political) aspects of his mission were inseparable and mutually supportive.’¹¹¹

Scholarship is greatly indebted to Allen Debus for his study of the historical development of Paracelsianism in the early modern era in his landmark *The Chemical Philosophy*. For a good introduction to the historical situation and debates, this book is still an essential read. However, there are also strong deficiencies in Debus’s account, which are linked with his quasi-positivist account of Paracelsianism as a precursor of chemistry.¹¹²

First of all, Debus reduces the Paracelsian movement primarily to proto-chemistry and medicine. He hence minimises the religious background of Paracelsianism and neglects its attempt to unify philosophy and Christianity. As I will further show, many of the most prominent Paracelsians were also religious philosophers who attempted to produce a new synthesis between Christian thought and natural philosophy. Yet the fact that Paracelsians were often embroiled in matters that were related to metaphysics and theology is almost completely overlooked in Debus’s analysis.

Secondly, Debus pays no attention to the ‘magic’ inherent in much of Paracelsian speculation. Although he did touch on the weapon-salve controversy, his analysis of the magical concepts of the alchemists remains undeveloped. He failed to take into account the links between Renaissance magic and Paracelsianism, including the fact that Paracelsians became the most eloquent supporters of the framework of natural and Cabalistic magic in the early modern period. Paracelsians like Oswald Croll eagerly incorporated the magical framework within the alchemical philosophy, and Van Helmont was to follow suit.

Finally, Debus overlooks the medieval alchemical background of the ‘Chemical Philosophy’. He was, of course, not the only one to do so. The fact that Paracelsus almost single-handedly renewed the alchemical tradition and produced a new alchemy blinded many scholars to the complexity of the alchemical phenomenon in early modern Europe. For someone like Debus or Pagel, all early modern ‘chemists’ were Paracelsians. Paracelsus was indeed the dominant figure of late sixteenth and early seventeenth-century alchemy, but his reception amongst alchemists varied from whole

¹¹⁰ The influence of *Astronomia magna* on Van Helmont is analysed below under 3.4.

¹¹¹ Weeks, *Paracelsus: Speculative Theory*, p. 244.

¹¹² See also my critique above, under chapter 1.

support (as in Gerhard Dorn) to qualified support (Joseph Du Chesne), moderate criticism (as for the later Van Helmont) to vehement criticism (Andreas Libavius). Hence I have preferred to term Van Helmont's framework of thought 'medical alchemy' rather than Paracelsianism; however, in his case, the fundamental influence of Paracelsus cannot be denied.

2.1.4. Conclusions

This brief overview of the intellectual landscape that influenced Van Helmont's thought should make it clear that the period was one of intense intellectual search, both in the realm of religion and of philosophy. It was a period when the natural philosophy of Scholasticism was no longer satisfactory to the intellectual milieu. Many thinkers rejected Aristotelianism as incompatible with Christianity. Aristotle had perceived the Universe as uncreated, a perpetual self-actualising matter that transformed itself from potency into act. By comparison, the new philosophers argued that in accordance with Christian doctrine, the world had been created, and there was a single fundamental source of Creation, God. In doing so, the new philosophers were not essentially departing from the medieval Scholastic tradition, which had also upheld Christian principles. The difference was that they were much less willing to accommodate Aristotle to the Christian tradition. This unwillingness was surely also borne by the fact that the new ascendancy of the 'arts' (mechanics, medicine, alchemy etc), with their empirical and experimental methods, had unveiled the limits of the Aristotelian method. In this context, the failure of Scholastic Aristotelianism to account for the so-called 'occult qualities' played a major role in the ultimate rejection of this natural philosophy.

In place of the standard Scholastic view, a flurry of new speculation and practice rose to the forefront. This speculation was prompted initially by the Renaissance philosophers, whose all-embracing theory of *prisca theologia* allowed the revival of different worldviews, including Hermeticism, pre-Socratic philosophy, Platonism, late antique Stoicism and Neoplatonism and others. Most if not all were made compatible with Christianity through original syntheses like those of Ficino (for Neoplatonism and Hermeticism), Justus Lipsius (for Stoicism) or Pierre Gassendi (for Epicureanism).

The Neoplatonic-Hermetic strand of the Renaissance also encouraged a revaluation of the natural world, according to which the universe hid at its core a divine principle that reflected the continuous presence of God in nature. The existence of a

divine centre of nature allowed philosophers – particularly those associated with alchemical and Hermetic thought - to entertain dreams of ‘universal knowledge’, the one method that would unveil the hidden divinity in Creation. They were, in essence, trying to ‘unearth God’, bringing the divine into plain view. Solutions varied from explorations of Lullist techniques to laboratory experiments, from attempts at classifying all knowledge to creating universal education or discovering the universal medicine. There was an essential kinship between the encyclopaedic efforts of Johann Heinrich Alsted (1588-1638), the pansophic vision of Jan Amos Comenius (1592-1670), the Great Instauration of Francis Bacon, or the Universal Medicine sought after by Van Helmont.¹¹³ All these thinkers were fundamentally driven by a conviction that the new knowledge would be conducive to a revival of Christianity and a betterment of the human condition.

2.2. Jan Baptista Van Helmont’s Life and Works

2.2.1. Van Helmont’s Life

The details of Jan Baptista Van Helmont’s life are available from several primary sources, with the bulk of the information drawn from his trial by the Archbishopric of Mechelen. For the first part of his life (1579-1616), one has to rely mainly on Van Helmont’s own autobiographical treatises, particularly ‘The Author’s Studies’ (‘Studia authoris’) and ‘On the Plague-Grave’ (‘Tumulus pestis’). Between 1616 and 1637, the period of his involvement in the weapon-salve controversy, the information is drawn from preserved letters and archives, prominently the ‘Causa J. B. Helmontii medici’, three volumes of documents pertaining to the Inquisition case, now stored in the Archives of the Archbishopric of Mechelen.¹¹⁴ For the latter years, from 1638 to 1644, there is some autobiographical information available, as well as Van Helmont’s son Francis Mercury’s introduction to *Ortus medicinae*. Apart from these main sources, there is information collected through the archival work of Henri De Waele, Robert Halleux, G. Desmarez, Louis Stroobant and J. Nauwelaers.

¹¹³ Alsted, for instance, viewed his encyclopaedic effort as an ‘universal medicine’ for the mind; Hotson, *Johann Heinrich Alsted*, pp. 92-93.

¹¹⁴ Mechelen (Malines), Archives of the Archbishopric of Mechelen, MS ‘Causa J.B. Helmontii medici’, 3 vols.

Van Belmont originated from an old Flemish noble family called Berthout of Mechelen, sires of Belmont and Keerbergen.¹¹⁵ Belmont is a town of the Meyerij, situated over the Aa, three leagues from Eindhoven. The first nobleman bearing the name Berthout, Egide Berthout of Mechelen, is chronicled in the thirteenth century. Egide Berthout called himself Aegidius van Berelaer, knight, son of Egide Bergethout, called Barbatus, signor of Berlaer.¹¹⁶ One of his descendants, Willem Berthout van Mechelen became bishop of Utrecht between 1296 and 1301. In 1314, Duke Jan of Brabant is recorded to have given to Jan II Berthout van Berlaer (1280-1328) the Belmont land in exchange for certain domains in Lierre and thereabouts.¹¹⁷ The Berthout name continued throughout the 1400s and 1500s, although the genealogy is not very clear during this period.¹¹⁸ In any case, the Berthout continued to rank among the oldest and richest Flemish nobility up to and beyond Jan Baptista's time.

Christian Van Belmont (1540-1580), Jan Baptista's father, was a high-ranking nobleman who acted as counsellor, then master of the Chamber of Accounts of Brabant. In 1567, he married Marie de Stassart, who bore him at least seven children: Dierick van Belmont van Herlaer, Anne-Sabine, Lucas, Marie-Dorothée, Jacques, Barbe and Jan Baptista.¹¹⁹

2.2.1.1. Van Belmont's Childhood and Youth (1579-1608)

Jan Baptista Van Belmont was born in Brussels on the 12 January 1579 old style, 'being the youngest, and of least esteem of my Brethren and Sisters', as he confesses.¹²⁰ He was baptised at the church of Saint Gudula.¹²¹ At the time of his birth, Brussels was caught in the middle of the Calvinist troubles. As mentioned, between 1579 and 1585 the Count of Egmont established a strong Calvinist rule in Brussels and was only toppled in 1585, after the intervention of the governour Farnese.¹²²

¹¹⁵ Louis Stroobant, 'Les origines du Docteur van Belmont', in *Le Folklore brabançon: Numéro spécialement consacré à J. B. van Belmont, 1579-1644* (Brussels, 1933), pp. 140- 166 (p. 140). The genealogical information shown further originates from Stroobant's research.

¹¹⁶ Stroobant, 'Les origines', p. 140.

¹¹⁷ Stroobant, 'Les origines', p. 142.

¹¹⁸ Stroobant, 'Les origines', p. 142, records that there were many illegitimate births in the family, which makes it hard to trace lineages.

¹¹⁹ Stroobant, 'Les origines', pp. 148-149. The French spelling, used by Stroobant, is maintained for the other Van Belmont children.

¹²⁰ J. B. Van Belmont, chap. 2, 'The Author's Studies', p. 11; 'Studia authoris', p. 14. For a while there was confusion in regards to his actual date of birth, since Jan Baptista himself wrote that he was born in 1577. In fact, G. Desmarez discovered the birth certificate of Jan Baptista on page 135 of the baptismal register of Saint Gudula, with the date 12 January 1579.

¹²¹ G. Desmarez, 'L'État civil de J.-B. Van Belmont,' *Annales de la société d'archéologie de Bruxelles*, 21 (1907), 107-123 (p. 108).

¹²² See above, chapter 2.1.

In his autobiographical account ‘Author’s Studies’ (‘*Studia authoris*’) included as chapter two of *Ortus medicinae*, Van Helmont recounted the year 1580 as the most miserable in the annals of his native land.¹²³ It was perhaps an exaggeration, given the long-standing war that enveloped the Low Countries from 1565 onwards. However, the times were indeed dire, as military interventions degenerated into wanton violence and excess. In 1579, for instance, the Spanish troops occupied Maastricht; rumours abounded that more than 1,700 women were murdered by the indiscriminating soldiers.¹²⁴ The Dutch troops were no more temperate. Nicknamed *francs pillards* (*vrybuyters*, i.e. ‘plunderers’) in the Catholic areas, they regularly attacked and devastated the outskirts of Antwerp, Mechelen, Louvain, Namur or Van Helmont’s native town of Vilvorde.¹²⁵ War also brought other problems with it. During this period, the cost of living rose, and the quality of food became dire, causing numerous epidemics. Packs of wolves and dogs roamed through the countryside and even in the cities. The highways and roads were often pillaged by bands of thieves called *gueux* who frequently kidnapped travellers and merchants for ransom.¹²⁶

While his eldest brother Dierick followed in his father’s footsteps by becoming a respected public dignitary and mayor of Vilvorde, Jan Baptista was ‘brought [up] in Studies’.¹²⁷ In 1580 (according to his confession), his father died, leaving his mother to tend a large family.¹²⁸ Presumably due to this hardship, Jan Baptista was sent at a young age to the prominent University of Louvain, completing his studies at the age of seventeen.¹²⁹

While studying such subjects as astronomy and geometry at Louvain, Van Helmont seems to have experienced a crisis of faith in the value of the education he was receiving. He was searching for truth, but instead he discovered that studies only offered him uncertainty.¹³⁰ As an example, he offers the Copernican theory, praised by the Louvain astronomer Cornelius Gemma (1535-1578), which he found to contain unclear ideas and ‘vain excentricities’.¹³¹ As a seeker for absolute truth, Van Helmont was disturbed by the fact that Copernicus posited things ‘not having one and the same

¹²³ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 11; ‘*Studia authoris*’, p. 14.

¹²⁴ Pirenne, *Histoire de Belgique*, II, 359.

¹²⁵ Henne and Wauters, *Histoire de la ville*, p. 9.

¹²⁶ Henne and Wauters, *Histoire de la ville*, pp. 8-9.

¹²⁷ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 11; ‘*Studia authoris*’, p. 14: ‘In studiis enim educabar’. Jan clearly attributes his studies to his ‘lowly’ condition as the youngest son of the noble family.

¹²⁸ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 11; ‘*Studia authoris*’, p. 14.

¹²⁹ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 11; ‘*Studia authoris*’, p. 14.

¹³⁰ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 12; ‘*Studia authoris*’, p. 14.

¹³¹ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 12; ‘*Studia authoris*’, p. 14, ‘*vanas excentricitates*’.

Centre', and this discovery detracted from his initial interest in the geometry of Euclid.¹³² However, he was attracted by the Jesuits' promise of new learning and eagerly attended their courses despite the antagonism of the University and town at large to Jesuit education.¹³³ He was most particularly drawn to the course on the nature of magic offered by Martin del Rio, yet he maintains that he was disappointed to find out that it was empty of judgment.¹³⁴

Now convinced that Louvain could not offer him the truth he was seeking, he refused the title of Master of Arts from the University and withdrew from studies.¹³⁵ He contemplated pursuing the study of Theology, as he was promised a Canonship if he did so; however, he rejected such a course for fear he should 'eat the sins of the people' as St Bernard had stated.¹³⁶ Instead, he was drawn to the study of Christian Stoicism, undoubtedly due to the strong influence of Justus Lipsius (1547-1606) in Louvain. Enthused by his reading of Seneca and Epictetus, Van Helmont considered becoming a Capuchin monk, identifying this order with the ideals of Christian Stoicism.¹³⁷ Yet the rigours of an austere life seem to have taken a toll on his precarious health, as he himself admits.¹³⁸ During this period of spiritual and physical weariness he had his first symbolic dream. According to his own words,

I seemed to be made an empty Bubble, whose Diameter reached from the Earth even to Heaven: for above hovered a flesh-eater; but below, in the place of the Earth, was a bottomless pit of darkness. I was hugely aghast, and also I fell out of all knowledge of things, and my self.¹³⁹

Van Helmont rationalised his enigmatic dream by concluding that 'in Christ Jesus, we live, move, and have our being. That no man can call even on the name of Jesus to Salvation, without the special grace of God'.¹⁴⁰ In light of the dream, he now perceived

¹³² Van Helmont, chap. 2, 'The Author's Studies', p. 12; 'Studia authoris', p. 14.

¹³³ See previous chapter; Van Helmont must have witnessed first-hand the struggle between the Jesuits and the University starting in 1593.

¹³⁴ Van Helmont, chap. 2, 'The Author's Studies', p. 12; 'Studia authoris', p. 14: 'Ac tandem pro messe, solas stipulas inanes rapsodiaque pauperrima collegi, iudicio priva'.

¹³⁵ Van Helmont, chap. 2, 'The Author's Studies', p. 12; 'Studia authoris', p. 14.

¹³⁶ Van Helmont, chap. 2, 'The Author's Studies', p. 12; 'Studia authoris', p. 14.

¹³⁷ Van Helmont, chap. 2, 'The Author's Studies', p. 12; 'Studia authoris', p. 15.

¹³⁸ Van Helmont, chap. 2, 'The Author's Studies', p. 12; 'Studia authoris', p. 15.

¹³⁹ Van Helmont, chap. 2, 'The Author's Studies', p. 12; 'Studia authoris', p. 15: 'Videbar factus Bulla inanis, cujus diameter, a terra, in coelom usque vergeret: superne enim immineret sarcophagus, inferne vero, loco terrae, abyssus erat obscuritatis. Horrui immensum, simulque excidi extra omnem rerum meique notitiam'.

¹⁴⁰ Van Helmont, chap. 2, 'The Author's Studies', p. 12; 'Studia authoris', p. 15: 'Ad me vero rediens, intellexi unico conceptu: Quod in Christo Iesu vivimus, movemur & sumus. Quod nemo, vel nomen Iesu, ad salute dicere, sine peculiari gratia Dei, possit'. The quotation refers to Acts 17:28.

Stoicism to be lacking substance and humility and apparently embraced a stronger Augustinian stance with its emphasis on Grace.¹⁴¹

Moving away from the practice of Christian Stoicism, Van Helmont turned next to herbal medicine and the study of Dioscorides as a ‘recreation’.¹⁴² He was surprised to find that the knowledge of herbs had not really progressed since the ancient times, or so he considered.¹⁴³ He soon found himself drawn to the practice of medicine, which he discovered to be a real ‘science’ (*scientia*) and ‘gift’ of God (*donum*), despite the limitations of Galen and Avicenna.¹⁴⁴

Rejecting the prospect of going into law, which he saw as human and fickle, Van Helmont at last veered toward the practice of medicine.¹⁴⁵ According to his confession, he voraciously read six hundred books in the subject, including Galen, Hippocrates, Avicenna, and the recent books of Leonhard Fuchs (1501-1566) and Jean Fernel.¹⁴⁶ During this same period he was invited by the Medical College of Louvain to teach surgery. The professors Thomas Fyenus (1567-1631), Gerard de Villers (d. 1634) and Jean Stormius (1559-1650) invited him to give lessons in this field.¹⁴⁷ Undoubtedly Jan Baptista must have distinguished himself in his studies for the medical faculty to trust him with teaching at so young an age. He accepted to teach some courses, only to realise that it was very easy and presumptuous of him to teach what he had himself read, but not practised.¹⁴⁸

Instead, Van Helmont decided to take an apprenticeship with a physician; this, he hoped, would give him some understanding of the practice of medicine. However, he discovered that, although he learnt how to ‘debate’ a disease, as he put it, he was never taught any practical healing.¹⁴⁹ As he bitterly confessed, at the end of his apprenticeship

¹⁴¹ Van Helmont’s Augustinian inclination can at least partially be attributed to the climate at the University of Louvain; see above, 2.1.1.

¹⁴² Van Helmont, chap. 2, ‘The Author’s Studies’, p. 13; ‘Studia authoris’, p. 15.

¹⁴³ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 13; ‘Studia authoris’, p. 15. Despite Van Helmont’s criticism, we must keep in mind that the sixteenth and seventeenth centuries were a time of revival for herbalism. As an example, botanical gardens were opened at Pisa in 1543, Padua and Florence in 1545, Bologna in 1547. A botanical garden was established at Cologne in the sixteenth century, and Oxford was the first to open such a garden in the UK in 1621.

¹⁴⁴ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 13; ‘Studia authoris’, p. 15.

¹⁴⁵ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 13; ‘Studia authoris’, p. 15.

¹⁴⁶ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 13; ‘Studia authoris’, pp. 15-16. Boasting about the number of books read seemed to be a current practice in the period. Justus Lipsius maintains that Martin Del Rio had read no less than 1,100 books. See *Bibliographie Nationale de Belgique*, V, 475.

¹⁴⁷ Van Helmont, *Opuscula medica inaudita*, ‘On the Plague-Grave’, chap. 1, p. 1078; ‘Tumulus pestis’, chap. 1, p. 833. On Thomas Fyenus (Feyens), see *Biographie Nationale de Belgique*, VII, 47-49.

¹⁴⁸ Van Helmont, *Opuscula medica inaudita*, ‘On the Plague-Grave’, chap. 1, p. 1078; ‘Tumulus pestis’, chap. 1, p. 834.

¹⁴⁹ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 14; ‘Studia authoris’, p. 16.

he did not even know how to cure toothache.¹⁵⁰ Disappointed, he perceived medicine as a vain art, which did more harm than good through the erroneous practice of the physicians.¹⁵¹

Around this time, or perhaps even earlier (Van Helmont gives the date of 1596), he began to be interested in alchemy. In a manuscript, he recalled to have attended, together with Jan Rubens,¹⁵² the alchemical experiments carried out by Francois d'Aguillon (1567-1617), a Jesuit professor of mathematics at the College of Antwerp.¹⁵³ However, by his own admission, these experiments were not very fruitful; still, they piqued the young man's curiosity. We can presume he encountered Paracelsian writings around this time.

Uncertain how to proceed, Van Helmont fell into another period of introspection and questioning, accompanied by continuous prayer. Finally, his toil was rewarded by a new dream, whereby he seems to have had a vision of Genesis.¹⁵⁴ He dreamt of the primeval nature of the world as chaotic, confused matter, wherein the first Word of God was fashioned. It was this Word that told him that he was truly meant to become a physician:

I saw the whole universe, in the sight or view of truth, as it were some *Chaos* or confused thing, without form, which was almost meer nothing. And thence I drew the conceiving of one word; which did signifie to me, what followes. *Behold thou, and what things thou seest, are nothing: whatsoever thou dost urge, is lesse than nothing it self, in the sight of the most high. He knowes all the ends or bounds of things to be done; thou at leastwise mayst apply thy self to thy own safety.* Yea in that Conception, was there an inward Precept, that I should be made a Physitian, and that at sometime, *Raphael* himself should be given unto me.¹⁵⁵

¹⁵⁰ Van Helmont, chap. 2, 'The Author's Studies', p. 14; 'Studia authoris', p. 16.

¹⁵¹ Van Helmont, chap. 2, 'The Author's Studies', p. 14; 'Studia authoris', p. 16.

¹⁵² This Jan Rubens must have been a close kin of Peter Paul Rubens (1577-1640). It could not have been Peter Paul's father, Jan Rubens, who died in 1587. It would be interesting to explore the possible relationship between Van Helmont and the Rubens family. One must not forget that Peter Paul's mentor, the painter Otto van Veen (c.1556-1629), was also a Paracelsian thinker; see Halleux, 'Helmontiana I', pp. 47-48.

¹⁵³ Corneille Broeckx, 'Van Helmont: Ad Judicem neutrum causam appellat suam et suorum philadelphus' *Annales de l'Academie d'archeologie de Belgique*, 22 (1869), pp. 65-138 (p. 132). On d'Aguillon, see also Vanpaemel, 'Jesuit Science', pp. 395-396.

¹⁵⁴ Van Helmont, chap. 2, 'The Author's Studies', p. 14; 'Studia authoris', p. 16.

¹⁵⁵ Van Helmont, chap. 2, 'The Author's Studies', p. 14; 'Studia authoris', p. 16: 'vidi totum universum, in conspectu veritatis, tanquam aliquod informe chaos, quod merum pene nihil esset. Et hausi inde conceptum unius verbi; Qui significabat mihi, quae sequuntur. Ecce tu, & qua vides, sunt nil. Quidquid urges, minus quam ipsum nihilum, in conspectu Altissimi. Ipse scit fines omnes rerum agendarum; tu, tua saluti saltem intendas. Imo in isto conceptu, erat praeceptum intrinsecum, quod fierem Medicus, & quod mihi daretur quandoque ipsum Raphael'.

This dream-vision can be placed sometime around 1599, since it seems to fit another dream he recounted in the preface of his earlier, unpublished work, *Eisagoge in artem medicam ad Paracelso restituta* (1607).¹⁵⁶ According to this dream, on the 24 September 1599, he fell asleep on the shore of the river Escaut and dreamed he entered in a large shining palace where he found Hermes Trismegistus, Paracelsus and other adepts of all nations.¹⁵⁷ Guided by the ghost (*Evestrum*) of Paracelsus, he was shown a great, unspeakable light before falling from on high to the dark world below.¹⁵⁸

Encouraged by these guiding dreams, Van Helmont indeed proceeded to learn everything he could about nature and its secrets. He determined henceforth to pursue the study of medicine; however, his family was not particularly supportive of this decision. His mother did not want him to go into medical practice, and he apparently tactfully avoided mentioning it to his father's kin.¹⁵⁹ There was no tradition in this noble family of anyone pursuing medicine, which may have seemed an odd and perhaps even dubious practice for a nobleman. Van Helmont himself felt a sense of inner conflict in pursuing his calling rather than fulfilling his family's expectations: 'I long bewailed the sin of disobedience', he confesses.¹⁶⁰

Familial influence and paternal example were strong indicators of career choice in the seventeenth century. Yet the lack of a father figure encouraged Van Helmont to find his own way in life, and made him defer to God for the career decision:

I oft-times humbly intreated the Lord with a sorrowful heart that he would vouchsafe to lead me unto a calling, not whither I was carried of my own free accord; but wherein I might well please him most: And I made a vow, that I would follow and obey him to the utmost of my power, whithersoever he should call me.¹⁶¹

In the context of Van Helmont's worldview, it is important to note that he did not pursue the physician's path until he had obtained divinely inspired sanction. His dream-vision provided the energy and courage to go against his family's tradition and

¹⁵⁶ Corneille Broeckx, 'Le premiere ouvrage de J.B. Van Helmont, Seigneur de Mérode, Royenborch, Oirschot, Pellines etc, publié pour la premiere fois', *Annales de l'Academie d'Archeologie de Belgique*, 10 (1853), 327-292 and 11(1854), 119-197. The dream is transcribed and translated in its entirety in Halleux, 'Helmontiana II', pp. 20-25. The Halleux transcription is used for citation purposes.

¹⁵⁷ Halleux, 'Helmontiana II', p. 21.

¹⁵⁸ Halleux, 'Helmontiana II', pp. 23-25.

¹⁵⁹ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1078; 'Tumulus Pestis', chap. 1, p. 834.

¹⁶⁰ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1078; 'Tumulus Pestis', chap. 1, p. 834: 'Deflevi dudum peccatum inobedientiae'.

¹⁶¹ Van Helmont, *Opuscula medica inaudita*, 'On the Plague Grave', chap. 1, p. 1079; 'Tumulus Pestis', chap. 1, p. 834: 'Ac moesto corde saepe supplex oravi Dominum, dignaretur me ducere ad vocationem, non qua mea sponte ferebar; se in qua illi complacerem potissimum'.

specialise in a field that was not necessarily highly regarded at the time. It was also this kind of vision that engendered his belief that a true physician was elected by God, rather than self-made.¹⁶²

The importance of dream-visions in Van Helmont's life and thought cannot be overstated. They occurred at crucial moments, whenever he was strongly questioning himself or his learning.¹⁶³ The pattern that leads to his visions is remarkably similar: it begins with an internal crisis, triggered by a real-life conflict of some sort. The crisis is accompanied by strong negative emotions, such as feelings of worthlessness, inadequacy, falsehood or confusion. Van Helmont's reaction in these crises is to dedicate himself to ascetic practices.¹⁶⁴ The combination of moral and physical exhaustion led to intense dreams that display strong visual imagery and are not straightforward at the first glance. Yet the interpretation or understanding of the dream usually coincided with the waking moment.¹⁶⁵

After having come to terms with his choice of career path, Van Helmont decided to accept the medical degree from Louvain. It was a decision that ran somewhat counter to his beliefs in the worthlessness of university education; however, Van Helmont's character seemed to display, side by side with his strong idealism, a practical streak. As shall be further shown, his largesse and lack of concern with wealth and fame combined with a desire to promote Paracelsian medicine and provide for his family.

Yet even after receiving his medical degree, buttressed by dreams of the divine confirmation of his vocation, Van Helmont still harboured severe doubts about his career path. In search of his destiny, he turned to travelling: 'I [...] commended my self to God, with an intention of going far from home, of forsaking medicine, and of never returning into my Country'.¹⁶⁶ However, there may have been some rationale in this decision, given the Paracelsian injunction to leave everything behind and travel in order to accumulate experience.¹⁶⁷ Before he left, in a typical gesture of generosity, he bequeathed his whole inheritance to his widowed sister. First, he travelled to

¹⁶² Van Helmont, chap. 2, 'Author's Studies', p. 13; 'Studia authoris', p. 15. As Halleux, 'Helmontiana II', pp. 28-29 points out, for Van Helmont medicine was a true 'donum Dei', a gift of God.

¹⁶³ Halleux, 'Helmontiana II', pp. 25-31 observed the resemblance between Van Helmont's dream-visions to the alchemical topos of trial before initiation. He also made a comparison with the dreams of Descartes as recounted by Baillet.

¹⁶⁴ Van Helmont, chap. 2, 'Author's Studies', pp. 13, 'Studia authoris', p. 14.

¹⁶⁵ See, for instance, Van Helmont, chap. 1, 'The Author's Confession', p. 10, where he observes 'At the same instant, an understanding of the Vision was given to me'; 'Confessio authoris', p. 13.

¹⁶⁶ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1079; 'Tumulus Pestis', chap. 1, p. 834: 'Deo me commendavi, cum intentione proficiendi peregre, Medicinam deferendi, atque in patriam redeundi nunquam'.

¹⁶⁷ Thus, Van Helmont may have followed Petrus Severinus' famous exhortation to travel. See above, chap. 2.1.3.

Switzerland and Italy between 1600 and 1602, returning home briefly before proceeding to France, Spain and England from 1602 and 1605.¹⁶⁸ A less trustworthy account has him reaching as far as Russia and the Tartar lands.¹⁶⁹ By comparison with Paracelsus, Van Helmont seemed to have been well-received wherever he went, a fact that undoubtedly had more to do with his noble descent than his medical practice. He was even invited to parties organised by the English Court at Whitehall, one in the presence of Queen Elizabeth I herself.¹⁷⁰ While he was in England, he was apparently acquainted with two prominent alchemical philosophers, Sir Hugh Platt (1552-1608) and Robert Fludd.¹⁷¹ Of Fludd his judgement was later negative: 'I have known the man in his country for a poor physician and an even worse alchemist'.¹⁷² Van Helmont seems to have returned to England again in 1607, because he mentions that he saw a comet there on 28 September 1607 in a letter to Marin Mersenne (1588-1648) (19 December 1630).¹⁷³

Although the record is not exactly clear, it was probably during these travelling years that he met an alchemist,

For an Idiot had associated himself with me, who had known at least, the manual instruments of the art of the fire (*pyrotechnia*): I presently as soon as I beheld the inward part of some bodies, by the fire, perceived the separations of many bodies, then not yet delivered in books, and at this day, some being unknown: Afterwards, an earnest desire of knowing and operating, daily increased in me.¹⁷⁴

¹⁶⁸ J. Nauwelaers, 'La Maison de Van Helmont à Vilvorde', in *Le Folklore brabançon: Numéro spécialement consacré à J. B. van Helmont, 1579-1644* (Brussels, 1933), pp. 167- 178 (p. 171).

¹⁶⁹ Francois Martin Poulter d'Elmotte, *Essai philosophique et critique sur la vie et les ouvrages de J. B. Van Helmont* (Brussels: Hublou, 1817), p. 21. His affirmations must be taken with a grain of salt, especially since he stated that Van Helmont was admitted to the Rose Cross order in Bavaria, but he gives no evidence for that claim.

¹⁷⁰ Henri De Waele, *J-B Van Helmont* (Bruxelles: Office de Publicité, 1947), p. 15.

¹⁷¹ I have conjectured the information on Sir Hugh Platt out of two pieces of evidence. One is a mention Van Helmont made in his interrogatory of 21 March 1634, when he stated that one of his confiscated papers was a treatise by 'Hugo Place' (most likely Hugh Platt) originating from 1607-1608, Corneille Broeckx, 'Interrogatoires du docteur J. B. van Helmont sur le magnétisme animal, publiés pour la première fois', *Annales de l'Académie d'archéologie de Belgique*, 13 (1856), 306-350 (p. 345); the other evidence is offered by the physician Robert Child in Samuel Hartlib's 'Ephemerides' for 1650; Mr Hinshaw hath Sir Hugh Platt's MS. Amongst the rest hee saw one with an inscription Helmont's Althahest. It seemes Helmont was acquainted with Sir Hugh Platt's when hee was in England. Dr Child', HP 28/1/60B, 'Ephemerides' - 1650, in *Hartlib Papers* (Ann Arbor, MI, 1995; enlarged ed., Sheffield, 2002) [on CD].

¹⁷² '19 Décembre 1630', II, 584: 'j'ay cognu l'homme en sa patrie pour un pauvre medecin et encore moindre alchymiste, sed erat garrulous, stentor, superficialiter doctus, parum qui constans'. At the same time, Van Helmont admits to having read Fludd's works.

¹⁷³ '19 Décembre 1630', II, 583.

¹⁷⁴ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1079; 'Tumulus Pestis', chap. 1, p. 834: 'Idiota namque se mihi associabat, qui pyrotechniae, manualia saltem, noverat. Mox ego, ut penetrale quorundam corporum per ignem inspexi; comprehendi multorum separationes, tum

It was apparently this encounter which acted as a secondary trigger to Van Helmont's career, besides his dream-visions, because after this experience he seems to have settled in his profession and eventually returned to Belgium. In autumn 1605, after five wandering years, Van Helmont went to Antwerp, to help with an outbreak of 'plague'.¹⁷⁵ He describes it as a 'Fever': 'I returning out of *England* to *Antwerp*, found some hundreds, after a malignant and popular Fever, to be dropsical: I cured many, and many under the unhappy experiments of others, in the mean time Perished.'¹⁷⁶

The 'art of the fire' provided Van Helmont with the knowledge and tools he needed to dedicate himself completely to the practice of Paracelsian alchemical medicine. By his own admission, he started to practice his medicine for free, gaining a reputation mainly, but not only, amongst the poor he treated.¹⁷⁷ He received flattering solicitations of employment from Ernest of Bavaria (1554-1612), Prince-Elector-Archbishop of the Archbishopric of Cologne (1583 to 1612), who was also bishop of Münster, Hildesheim, Freising and Liège, and from his cousin, Emperor Rudolf II of Habsburg.¹⁷⁸ Much has been written about Rudolf II's interest in the 'occult sciences', particularly alchemy, yet much less on Ernest, who entertained similar interests in Cologne and Liège.¹⁷⁹ Ernest was a protector of alchemists and astrologers, and supported the publication of the Huser edition of Paracelsus's works in Cologne.¹⁸⁰ The Prince apparently dabbled in alchemy himself. Under the watch of his personal physician-chemist Philippe Gerinx (1549-1604), he took upon himself to analyse the waters of the Fountain of Pliny near Tongres.¹⁸¹ It was perhaps in the aftermath of Gerinx's death that Ernest invited Van Helmont to Liège to take up employment as his personal physician. However, Van Helmont realised that pleasing nobility and offering medical services to monarchs was not his true vocation. Perhaps influenced again by

libris nondum traditas, ac hodie aliquot incognitas. Dein indies crevit sciendi ac operandi aviditas'. We should not necessarily take the term 'Idiot' to be derogatory; Van Helmont most likely uses it in the sense of an 'empirical scientist', following the term of Nicholas of Cusa.

¹⁷⁵ Van Helmont, chap. 63, 'The Dropsie is Unknown', p. 509; 'Ignotus hydrops', p. 408.

¹⁷⁶ Van Helmont, chap. 63, 'The Dropsie is Unknown', p. 509; 'Ignotus hydrops', p. 408: 'In Autumno anni 1605 ex Anglia Antverpam rediens, reperi aliquot centenos, post malignam atque popularem febrim, Hydropicos: multos sanavi Multique sub infaustis aliorum tentaminibus interim perierunt'.

¹⁷⁷ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1079; 'Tumulus Pestis', chap. 1, p. 834.

¹⁷⁸ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1079; 'Tumulus Pestis', chap. 1, p. 834.

¹⁷⁹ On Ernest of Bavaria, see *Biographie Nationale de Belgique*, V, 632-645. On his court, see Robert Halleux, 'Nouveaux matériaux sur la cour savante d'Ernest de Bavière', *Cinquième Congrès de l'Association des Cercles Francophones d'Histoire et d'Archéologie de Belgique*, pp. 394-404 and Robert Halleux and Anne-Catherine Bernès, 'La cour savante d'Ernest de Bavière', *Archives Internationales d'Histoire des Sciences*, 45 (1995), 4-29.

¹⁸⁰ Halleux, 'Helmontiana I', p. 47.

¹⁸¹ *Biographie Nationale de Belgique*, V, 643. On Gerinx, famous for his distillation of spa waters, see *Biographie Nationale de Belgique*, VI, 670-673.

Paracelsus's example, Van Helmont dedicated himself to curing the poor and alleviating their ailments.

Around 1607, Van Helmont wrote his first known treatise, *Eisagoge in artem medicam ad Paracelso restituta*. This tentative work was never published but was retained by Van Helmont amongst his papers.¹⁸²

2.2.1.2. *Maturity and Persecution (1609-1637)*

Two years later, in 1609, Van Helmont decided to retire to the town of Vilvorde, part of his family's domains.¹⁸³ At this time, he had already married Marguerite van Ranst (n. 1590), daughter of Wilhelm-Charles van Ranst and Isabelle van Halmale.¹⁸⁴ Interestingly, van Ranst also originated from the Berthout Helmont family, so the marriage was effected within the same aristocratic line. It was also a practical and lucrative arrangement, because Van Helmont's wife was very wealthy. Jan Baptista apparently inherited from her the titles of Mérode, Royenborch, Oirschot, Pellaines and other domains.¹⁸⁵

Nevertheless, some of these titles have been disputed by some modern scholars. Desmarez, for instance, argues that he could not have really been the lord of all the lands of Mérode, Royenborch, and Pellaines.¹⁸⁶ Nauwelaers, however, makes a good case for the Mérode and Royenborch lands.¹⁸⁷ Thus, Isabelle van Halmale, the mother-in-law of Van Helmont, left by will (1633) to her daughter Marguerite a fief including sixteen tracts of land in Malines, a fief left by the signor of Roodenborch (Royenborch). This land was disputed by the Jesuits and object of an ongoing trial, but Isabelle wanted this estate to belong to her daughter in case of a positive conclusion of the trial. Isabelle also left to her daughter the secondary right to the lordship of Mérode, which first came to her brother Charles van Ranst. Thus, Nauwelaers concludes, if the Royenborch trial ended positively for Van Helmont and Charles van Ranst died without heirs, the two titles would have eventually passed to Van Helmont. The Mérode title is indeed confirmed albeit indirectly by Desmarez who found a tombstone of a Van Helmont that bore the Mérode coat-of-arms.¹⁸⁸

¹⁸² See my brief analysis of the work in 2.2.2.

¹⁸³ Nauwelaers, 'La Maison', p. 171.

¹⁸⁴ Stroobant, 'Les origines', pp. 149-150.

¹⁸⁵ Stroobant, 'Les origines', p. 150.

¹⁸⁶ Desmarez, 'L'État civil,' p. 172.

¹⁸⁷ Nauwelaers, 'La Maison', pp. 172-173.

¹⁸⁸ Desmarez, 'L'État civil,' pp. 14-15.

Isabelle van Halmale, Van Helmont's mother-in-law, seems to have been a well-connected and dynamic figure in Van Helmont's life, forming a close and affectionate relationship with her son-in-law. In her will, she recalls how, since 1609, 'Jan-Baptista van Helmont has nourished and cared for me without hope for re-payment.'¹⁸⁹ Later, she energetically and relentlessly concentrated on liberating Van Helmont from his house arrest.

Van Helmont seems to have had eight children: Pélagie-Livina (1611-1662), Olympie-Claire (b.1612), Léandre (b.1613), Francis-Mercury (b.1614 or 1618), Elzear (b.1616), Elisabeth (b.1616), Marie (b.1620), Clementine (?).¹⁹⁰ There is confusion about his children, since discovered records have Francis-Mercury being the second eldest son, while Van Helmont himself talks about the death of his two eldest sons in 1634.¹⁹¹ A persistent legend suggests that Jan Baptista had finally achieved an alchemical transmutation the very day Francis was born, hence the baptism of his son as 'Mercury' from the name of the philosophical substance of alchemy.¹⁹² However, as will further be analysed, Van Helmont never claimed to have made the *chrysopoetic* stone.¹⁹³

Jan Baptista took a personal interest in the education of his children, as Francis Mercury later recalled, and instructed them from a young age in the 'art of fire'.¹⁹⁴ He refused to let the sons attend university, for whose Aristotelian-Galenic teachings he had nothing but contempt. While Francis Mercury was proud of having been raised in the 'select school of Hermes', he seemed to have regretted the lack of proper Latin study, which he maintains, he had to learn on his own.¹⁹⁵ It might have been him that Van Helmont bragged about to Mersenne as having extraordinary artistic talents.¹⁹⁶ He

¹⁸⁹ Nauwelaers, 'La Maison', p. 175.

¹⁹⁰ Stroobant, 'Les origins', p. 156; De Waele, *J-B Van Helmont*, p. 12; Desmarez, 'L'État civil', p. 16. There is confusion with regards to Van Helmont's offspring amongst the scholars: for instance, Stroobant does not mention Elisabeth and Marie and has 1618 for the year of Francis' birth, while Desmarez fails to mention Elzear. Francis Mercury's birthdate is given as 1614 by De Waele and Nève de Mévergnies, *Jean-Baptiste Van Helmont*, p. 80, n. 40. Clementine Van Helmont is mentioned only in his interrogatory of 21 March 1634, when it is stated that she died at 4 years of age; see Broeckx, 'Interrogatoires', p. 346. It is true that Van Helmont does not explicitly say she was his daughter, but one can assume so.

¹⁹¹ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 14, 'Property of the Pest', p. 1135; 'Tumulus pestis', chap. 14, 'Proprietas pestis', p. 873.

¹⁹² Louis Figuier, *Alchimie et les alchimistes* (Paris: Labure, 1860), p. 207. It was probably this work that Mévergnies drew upon in order to support his claims of Van Helmont as a *chrysopoetian* alchemist. See above the discussion, chap. 1.

¹⁹³ For a discussion of this, see below, chapter 4.3 On Man.

¹⁹⁴ Francis Mercury Van Helmont, 'To the Friendly Reader', in J. B. Van Helmont, *Oriatrike or Physick Refined: the Common Errors Therein Refuted and the Whole are Reformed and Rectified*, trans. by John Chandler (London: Lodowick Lloyd, 1662), p. [3] (there are no page numbers).

¹⁹⁵ Francis Mercury Van Helmont, 'To the Friendly Reader', pp. [10-11].

¹⁹⁶ 'Jean-Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris: 15 Janvier 1631', p. 31; '30 Janvier 1531', p. 53: 'Mon petit eagé de 11 ans [or 12 years old in the previous letter] prend d'une main le ciseau

grew to become, like his father, a renowned physician and alchemist, but his major contributions lie in the promotion of a Christian Kabbalah influenced by Isaac Luria's (1534-1572) speculations.¹⁹⁷

It is not clear how long Van Helmont lived in Vilvorde for. By his admission, he was there for at least seven years, from 1609 to 1616, studying and experimenting with alchemy.¹⁹⁸ After 1616, Van Helmont seems to have moved to Brussels.¹⁹⁹ It was most likely here that he set up his medical practice. According to the *Ortus*, he claimed to have treated the poor for free; at the same time, he acted as the medical doctor of several high-standing dignitaries, whom he presumably charged for services.²⁰⁰

It was probably here that he witnessed the beginning of the heated exchange between Rudolf Goclenius the Younger (1572-1628) and Jean Roberti (1569-1651) on the weapon-salve.²⁰¹ The debate began in 1609, when Goclenius, professor at the University of Marburg, published *Oratio qua defenditur vulnus non applicato etiam remedio citra ulium dolorem curari naturaliter posse*, followed one year later by the *Tractatus de magnetica curatione vulneris citra ullam et superstitionem et dolorem et remedii etiam applicationem*, in which he supported the Paracelsian cure. A new and improved edition was issued in 1613 in Frankfurt, entitled *Tractatus novus de magnetica vulnerum curatione*.

During this period 1604-1623, the University of Marburg had come under the rule of Prince Moritz of Hessel-Kassel (1572-1632), whose religious sympathies leaned toward the Calvinist faith rather than the official Lutheran one.²⁰² Under his authority,

et de l'autre une loppe de papier ou parchemin sans ester deline ou portraict, coupe selon l'idee luy propose, soit une histoire ou aultre phantasie. Et n'est merueille que l'on ne le croid pas, veu que les paintres d'Anvers le sont venu voir, ne croyant pas possible: toutefois il leur couppoit l'histoire d'Acteon'. However, if it was Francis Mercury, it must mean that he was born in 1618 or 1619, not in 1614.

¹⁹⁷ Allison Coudert, *The Impact Of The Kabbalah In The Seventeenth Century: The Life And Thought Of Francis Mercury Van Helmont (1614-1698)* (Leiden: Brill, 1999), p. 118.

¹⁹⁸ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1080, 'Tumulus Pestis', chap. 1, p. 835.

¹⁹⁹ This is Walter Pagel's view, *Joan Baptista Van Helmont*, p. 7.

²⁰⁰ For instance, in 'Butler', Van Helmont talks about the viscount of Gand, whom he presumably tried to treat of podagra; p. 588; 'Butler', p. 468. He was sought out even in house arrest; on 10 December 1635, he was allowed to go and treat the Lord of Droogenbosch; see Craig Harline, *Miracles at the Jesus Oak* (New Haven, CT: Yale University Press, 2011), p. 302.

²⁰¹ Although no comprehensive history of the weapon-salve controversy has been written, there have been some good contributions on the subject; for the early history of the debate and Van Helmont's role in it see especially Mark A. Waddell, 'The Perversion of Nature: Johannes Baptista Van Helmont, the Society of Jesus, and the Magnetic Cure of Wounds', *Canadian Journal Of History*, 38 (2003), 179-197 (p. 182) and Carlos Ziller Camenietzki, 'Jesuits and Alchemy in the Early Seventeenth Century: Father Johannes Roberti and the Weapon Salve Controversy', *Ambix* 48:2 (2001), 83-101 (pp. 87-96).

²⁰² For an excellent analysis of Moritz and his court, see Bruce Moran, *The Alchemical World of the German Court: Occult Philosophy and Chemical Medicine in the Circle of Moritz of Hessen (1572-1632)* (Stuttgart: Franz Steiner, 1991), esp. chapter II.

Marburg became the second international centre of the study of Calvinist doctrine after Heidelberg.²⁰³ As Bruce Moran has pointed out, Moritz was profoundly dedicated to the support of an eclectic philosophy that combined elements of Neoplatonism, Hermeticism, Paracelsianism and Kabbalah. In this sense, he brought to Marburg professors that sympathised both with his philosophical outlook and his Calvinist leanings. Chief amongst these was Rudolf Goclenius, who was appointed in 1608 as chair of physics, and later named professor of medicine (1611) and mathematics (1613). The *Oratio* was Goclenius' inaugural speech at the University, in which he proclaimed his official allegiance to Paracelsian and Hermetic ideas.²⁰⁴

In the treatise, Goclenius took up the position supported by the physician Oswald Croll, who had described the benefits of the weapon-salve medicine. Goclenius argued that the weapon salve was not a superstition, but a reality effected by the intrinsic sympathy of all creatures. The 'Oration' was a defence of Renaissance Neoplatonic-Hermetic philosophy that upheld the concepts of the existence of the soul of the world, correspondences, astral influences and the analogy between the microcosm and the macrocosm. The action of the salve was not supernatural or demonic, but entirely natural, being based on the magnetic virtue.²⁰⁵ By magnetism, Goclenius understood a wide range of phenomena of sympathy and antipathy that acted mainly through astrological means.²⁰⁶ The work, even as it took up the defence of Paracelsian practice, contained some remarks that reflected Goclenius' Calvinist sympathies and anti-Catholic bias. For instance, he associated some Catholic practices with superstitions.²⁰⁷

Needless to say, Goclenius' work did not endear him to the Catholic side. It was perceived as a Calvinist condemnation of the Catholic campaign against black magic and witchcraft. In Bavaria and the Spanish Netherlands, Prince-Archbishop Ernest, whom we have already encountered as offering a position of physician to Van Helmont, had recently inaugurated the first trials of witchcraft. Ernest was a protector of alchemists and astrologers, but a fierce hunter of witches and illicit magic.²⁰⁸

Jean Roberti, a Jesuit professor at the University of Douai, Treves, Würzburg and Mainz, immediately attacked Goclenius in *Anatome magici libelli Rodolphi*

²⁰³ Moran, *The Alchemical World*, p. 32.

²⁰⁴ Moran, *The Alchemical World*, p. 38.

²⁰⁵ Rudolf Goclenius, *Oratio* (Marburg: Cattorum, 1609), p. 67.

²⁰⁶ Robert Halleux, 'Le procès', pp. 1062-1063. Halleux points out that this understanding of magnetism ultimately harkened back to Pierre de Maricourt.

²⁰⁷ Goclenius, *Oratio*, pp.8-9.

²⁰⁸ *Biographie Nationale de Belgique*, V, 641.

Goclenii de curatione magnetica per unguentum armarium (1615). He castigated the weapon-salve for making use of illicit magic and condemned its use. He raised three chief accusations against Goclenius: idolatry, necromancy and blasphemy.²⁰⁹ Idolatry referred to the use of amulets and magical seals, which Goclenius defended, while necromancy was linked to the purported employment of spirits in the weapon-salve cure. Finally, Roberti accused Goclenius of blasphemously maintaining that Divine Grace was responsible for magical cures. He concluded that the weapon-salve could only work through the intercession of the devil.²¹⁰ Roberti used the opportunity to attack the Calvinist doctrine by dismissing the weapon-salve as '*miracula calvinistica*'.²¹¹

In 1617 Goclenius published a defense, *Synarthrosis magnetica opposita infaustae anatomiae Joh. Roberti jesuitae pro defensione tractatus de magnetica vulnerum curatione*, in which he sought to clearly separate demonic magic from the natural magic of the weapon-salve.²¹² He proceeded to identify more than forty types of magic, including necromancy, theurgy, hydromancy, dactylomancy, gastromancy and others, and categorised them as demonic or natural.²¹³ Roberti promptly responded to Goclenius in a new attack published in 1618, called *Goclenius Heautontimoroumenos* (Luxembourg, 1618), in which Roberti again dismissed the weapon-salve as Calvinist heresy and superstition.²¹⁴ But Roberti did not seem to think this treatise was enough, going on to publish *Metamorphosis magnetica Calvina-Gocleana, qua Calvino Dogmatista et imprimis D. Rodolphus stupendo magnetismo in Giezas migrant et alta mysteria mirificissima vi et nova miraque arte ipsius doctoris Goclenii descripta a D. Joh. Roberti* (Liège, 1618) and *Goclenius magus serio delirans. Epistola adversus ejus libellum quem morosophium inscripsit* (Douai, 1619). Goclenius also replied three times, in *Aeroteleuticon astrologicum* (Marburg, 1618), *Chiromantica et physiognomica specialis* (Marburg, 1619) and *Mirabilium naturae liber sive defensio magnetica curationis vulnerum* (Frankfurt, 1625).²¹⁵

In these subsequent treatises, the religious and theological differences became more accentuated. In the *Goclenius Heautontimoroumenos*, Roberti accused the

²⁰⁹ Jean Roberti, 'Anatome magici libelli', in *Theatrum sympatheticum auctum* (Nuremberg: Sylvester Rattray, 1662), pp. 226-236 (pp. 228-229).

²¹⁰ Roberti, 'Anatome magici libelli', pp. 235-236.

²¹¹ Roberti, 'Anatome magici libelli', p. 230.

²¹² Rudolf Goclenius, *Synarthrosis magnetica* (Marburg: Jonas Saurium, 1617), pp. 53-55.

²¹³ Goclenius, *Synarthrosis*, pp. 55-83.

²¹⁴ Jean Roberti, 'Goclenius Heautontimoroumenos, id est, curationis magnetica et unguenti armarii ruina, ipso Rodolpho Goclenio juniore nuper parente et patrono: nunc cum sigillis et characteribus magicis ultraprouriente et precipitante', in *Theatrum sympatheticum auctum* (Nuremberg: Sylvester Rattray, 1662), pp. 309-456 (pp. 318-319, 333, 345, 446).

²¹⁵ De Waele, *J-B Van Helmont*, p. 28.

weapon-salve of being a ‘Calvinist heresy’, while Goclenius denounced the idolatry of the Catholics, including the worship of the Eucharist and the canonisation of Saints.²¹⁶ Thus, while the subject of the weapon salve started as a debate on natural magic, the discussion quickly became coloured by religious factionalism. Roberti, in particular, associated Paracelsian medicine with Calvinism.

For his part, Van Helmont did not think of it as a ‘Catholic vs Protestant’ matter. He was not concerned with religious divisions, but rather with establishing the truth of Paracelsian doctrines. In this, he seemed to have exhibited a curious naiveté with regards to the political-religious aspect of the dispute. Sometime around 1617, he wrote a defence of the weapon-salve doctrine called *De magnetica vulnerum curatione* in which he denounced both Goclenius’ arguments and those of Roberti.²¹⁷

It is by no means clear whether Van Helmont intended his work to be published; it is possible that he was hoping to initiate a private, not public, discussion. This would explain why Van Helmont gave the treatise to Pierre Remacle Roberti to forward to his brother Jean. In turn, the Jesuit went to Brussels to personally convince Van Helmont to publish the defence. Why would Van Helmont agree with such an idea, trusting someone who was railing so aggressively against the weapon-salve? It is possible that there was some type of relationship existing between the Robertis and Van Helmont that made the latter oblivious of the dangers to which he was exposing himself.²¹⁸ In any case, Van Helmont was persuaded and in 1618 sent his manuscript to Jean Gallé, a mathematician of Liège and close friend, to edit and submit it to the book censor of the town, Stevart.²¹⁹ Apparently, the censor approved it in the first instance and gave it to the printer Hovius. However, the Jesuits got word of the content of Van Helmont’s treatise and intervened to revoke the licence. It was too late; the text had been copied and was published in Paris by Leroy in 1621.

Van Helmont maintained that the actual printing had been done against his will, but he did receive twenty-three copies from a certain abbot of Fontanes, which he subsequently distributed.²²⁰ Roberti challenged his statement, accusing Van Helmont of

²¹⁶ See above, no. 75; Goclenius, *Synarthrosis magnetica*, pp. 132-150.

²¹⁷ Robert Halleux, ‘Helmontiana I’, p. 37 proposes 1615. However, in 1615 the Roberti treatise had just been published in Trèves, and only a year later in Liège; moreover, Van Helmont himself declared he read the treatises of Roberti and Goclenius in 1617; see also Broeckx, ‘Interrogatoires’, pp. 318-319.

²¹⁸ This acquaintance with the Robertis, his studies with the Jesuits, particularly del Rio, and alchemical assistance to d’Aguillon raise interesting questions as to the nature of Van Helmont’s relationship with the Jesuits and the reason of his fallout with them.

²¹⁹ De Waele, *J-B Van Helmont*, p. 30. On Van Helmont’s friendship with Jean Gallé and a brief presentation of the latter, see Halleux, ‘Helmontiana I’, p. 11.

²²⁰ Broeckx, ‘Interrogatoires’, pp. 25-26.

intending to publish the work in Liège in 1623 or 1624.²²¹ Subsequent editions in fact appeared in Cologne in 1624, Paris (second edition) in 1626 and in Liège in 1634. Roberti hurried to publish a refutation of Van Helmont called *Curationis magneticae et unguenti armariae magica impostura clare demonstrata a Johanni Roberti. Modesta responsio ad perniciosam disputationem JB ab Helmont Bruxellensis medici pyrotechnici contra eudem Roberti acerbe conscriptam* (Luxembourg, 1621). In it, he accused Van Helmont of corrupting sacred theology and the Scripture, as well as of defending superstitious beliefs and demonic magic.²²² Roberti recommended the newly installed Archbishop of Mechelen, Jacques Boonen (1573-1655), to start formal proceedings against Van Helmont.²²³

However, Boonen, a fascinating figure in his own right, was ambivalent about Jesuit influence in Flanders.²²⁴ A graduate of Louvain University, he seemed to have inherited both the school's reluctance toward the Jesuits as well as its fascination for Baianist theology. A close friend of Cornelius Jansenius, Boonen tried to promote Baianism through the Privy Council of Brabant, and attempted to stave off the Jesuit Society's power in the Mechelen area by inviting priests of the Augustinian Oratory of Pierre de Bérulle (1575-1629) in 1526.²²⁵ At a later time, Boonen's pro-Jansenist stance would bring him into open confrontation with the Jesuits.²²⁶ In the Van Helmont case, Boonen did not openly stand against the Jesuits, but proved not only slow and unresponsive to Roberti's indignant letters, but also ambiguous in his dealings with the case.

The Paris publication did not produce an immediate reaction in Catholic quarters. Perhaps there was an initial willingness to keep silent on the matter, despite Roberti's renewed appeal to Archbishop Boonen in a 1623 letter and the censoring remarks of Francisco de Paz, the archdukes' physician, as well as of Thomas Fyenus and Gerard de Villers.²²⁷ We have already encountered Fyenus and de Villers entrusting

²²¹ Halleux, 'Le procès', p. 1064. Halleux's study is an excellent resource for the study of the Inquisition trial, including a handy timeline (Appendix 1). For an alternative 'lifelike' account of Van Helmont's trial see also Harline, *Miracles*, pp. 179-241.

²²² Broeckx, 'J.B. Van Helmont: Ad Judicem', p. 76.

²²³ Halleux, 'Le procès', p. 1064.

²²⁴ On Jacques Boonen, see Felix Victor Goethals, *Lectures relatives a l'histoire de sciences, des arts, des lettres, des mœurs et de la politique en Belgique*, 2 vols (Brussels: Vandooren, 1837), I, 119-131; also *Biographie Nationale de Belgique*, II, 700-705.

²²⁵ Pirenne, *Histoire de Belgique*, III, 46.

²²⁶ Boonen refused to publish the condemnation against Cornelius Jansenius in 1642. In 1651, the Pope called Boonen to Rome in order to justify his suspect behaviour. Boonen sought refuge with the count of Ursel. Eventually, however, in 1653 he had to bend the knee and swear allegiance to the Church of Rome. See Pirenne, *Histoire de Belgique*, III, 46-47 and Goethals, *Lectures relatives*, pp. 130-132.

²²⁷ Halleux, 'Le procès', p. 1079.

Van Helmont with a surgery course when the latter was only seventeen years old. Yet time had passed, and the two medical professors may have borne some grudge against Van Helmont for abandoning the Galenic framework in favour of Paracelsianism. In fact, as Halleux has pointed out, Fyenus had written a treatise explicitly denying the reality of magnetism, except for the power a mother has over the foetus.²²⁸ Moreover, both Fyenus and de Villers were highly committed to surgery, which ran counter to the Paracelsian injunction against it. Given Archbishop Boonen's suspicious passivity in the matter, Roberti followed up with three more letters at the beginning of 1624, threatening to refer the matter to Rome.²²⁹

In the meantime, Van Helmont was writing a further weapon-salve treatise, called 'Ad iudicem neutrum causam appellat suam et suorum philadelphus', but this was never finalised or published.²³⁰ He seemed to have worked on it until 1626 or even later, as it contains a mention of the condemnation of the Jesuit theologian François Garasse (1585-1631) by the University of Paris.²³¹ The manuscript was found in 1634 amongst his papers and confiscated by the Inquisition. The treatise was an in-depth analysis of Roberti's *Goclenius Heautontimoroumenos* of 1618, in which Van Helmont sought to refute all of Roberti's arguments against the weapon-salve.

In parallel, Van Helmont prepared another work, his short commentary *Supplementum de Spadanis fontibus* on Henri de Heer's *Spadacrene* (1614), which disputed the latter's claim on behalf of the wondrous properties of the waters of the Spa. The *Supplementum* was published in 1624, in Liège, being dedicated to the Prince-Elector Ferdinand, archbishop of Cologne. The *Supplementum* was later re-edited in Antwerp (1646). De Heer, who prided himself on twenty-five years of experience with the Spa waters, was greatly exercised by Van Helmont's comments on his work and responded with *Deplementum supplementi de Spadanis fontibus* (Louvain, 1624) and later in *Observationes medicae oppido rarae in Spa et Leodii animadversae* (Liège, 1630 and Leipzig, 1645), in which he accused Van Helmont of being a poor physician and having caused the death of a patient.²³² To this, Van Helmont apparently responded

²²⁸ Halleux, 'Helmontiana I', p. 39; also Halleux, 'Le procès', p. 1070.

²²⁹ Halleux, 'Le procès', p. 1079.

²³⁰ Van Helmont maintained this was written in 1619, in response to the *Heautontimoroumenos* of Roberti. Halleux, 'Le procès', p. 1071, n.63 points out that 1621 is more plausible as a date, as Van Helmont makes reference to the *Modesta reponsio* of Roberti.

²³¹ Broeckx, 'J.B. Van Helmont: Ad Iudicem', p. 132.

²³² Henri de Heer, *Observationes medicae oppido rarae in Spa et Leodii animadversae* (Liege: Van Der Aa, 1630), p. 287. See also Halleux, 'Helmontiana I', p. 13.

with a demonstration of his findings in the presence of both de Heer and other persons.²³³

In 1624 a new edition of the weapon-salve treatise suddenly appeared in Cologne, called *Joannis Baptista Helmontii medici et philosophi per ignem propositiones notatu dignae, depromptae ex ejus disputatione de magnetica vulnerum curatione Parisiis edita*.²³⁴ This version included a summary of Van Helmont's ideas in twenty-four propositions, plus three propositions drawn from Paracelsus to which Van Helmont supposedly subscribed.²³⁵ The publication was clearly a product of Van Helmont's enemies, most likely led by Roberti, as it contained at the end a refutation of his ideas under the title *Propositiones notatu dignae*. The censure was signed by the Louvain theologians Guillaume Fabricius, Gilles de Bay, Guillaume Merchier, Jean Wiggers and Henri Rampen, two Louvain physicians, Thomas Fyenus and Gerard de Villers, as well as six more physicians from Douai, Cologne and Luxembourg.²³⁶

It was this second publication that determined the Inquisition to begin legal proceedings against the Brussels doctor. Perhaps the Church was worried that, with the publication of the Cologne version, Van Helmont's ideas would spread across the Catholic frontier. Furthermore, the Inquisition was spurred on by the censure of the Helmontian propositions by several Liège theologians, on 1 March, 10 April and 18 April.²³⁷ On 6 October 1625, the Spanish Inquisition officially condemned the twenty-seven propositions of the Cologne tractate and demanded the arrest of Van Helmont on suspicion of heresy.²³⁸ Their decision was supported by the Douai theologians (20 January 1626).²³⁹ On 23 February 1626, Sebastianus de Huerta, the secretary of the Inquisition, signed a decree requesting the Belgian tribunals to open a legal case against Van Helmont.²⁴⁰

However, this request was not immediately acted upon. It was only a year later, on 3 September 1627, that the curia of Mechelen finally summoned the physician to appear in court. Van Helmont complied, but not before demanding in writing the annulment of the trial and proclaiming his faith in the Catholic church.²⁴¹ Apparently,

²³³ Van Helmont, chap. 11, 'Air', pp. 60-61, 'Aer', pp. 52-53.

²³⁴ 'Joannis Baptistae Helmontii medici et philosophi per ignem Propositiones notatu dignae, depromptae ex ejus disputatione de magicae vulnerum curatione', in Hubert Dethier, Ivan Hermans and Sylvette Sue, *Johan-Baptist Van Helmont (1579-1644)* (Brussels: Vrije Universiteit Brussels, 1985), annex I.

²³⁵ De Waele, *J-B Van Helmont*, p. 34.

²³⁶ 'Joannis Baptistae Helmontii medici', annex I.

²³⁷ Halleux, 'Le procès', p. 1080.

²³⁸ De Waele, *J-B Van Helmont*, p. 34.

²³⁹ Halleux, 'Le procès', p. 1080.

²⁴⁰ De Waele, *J-B Van Helmont*, p. 34.

²⁴¹ De Waele, *J-B Van Helmont*, p. 34.

there was at this point an intention to arrest him; this was foiled by Van Helmont's servant, who overheard bailiffs outside the courtroom and went inside to tell his master of the plot; the judge backtracked and let Van Helmont go.²⁴² Three days later, on 6 September, the prosecutor decreed that the books and responses of Van Helmont should be submitted to the judgment and censure of the professors of theology and medicine in Louvain. They spent the following three years analysing the documents. In the meantime, in 1628 the theologians of Douai, Cologne and Dillingen condemned Van Helmont's writings, followed in 1629 by the Lyon theologians and physicians.²⁴³

During this period (1625-1630), other events were taking place in Van Helmont's life. In 1625, or thereabouts, he claimed to have met an alchemical adept, an Irishman called Butler, who was imprisoned in the castle of Vilvorde.²⁴⁴ Butler had cured a fellow inmate, a Franciscan monk, of Erisipelas or swelling of the arm; astonished by this, town officials asked Van Helmont to talk to Butler and witness his cure.²⁴⁵ Van Helmont became friends with the Irishman, and apparently the better for it, as the latter cured him of a slow poison given by an enemy.²⁴⁶ He later procured Butler's release, a fact which proves that, despite the Inquisition's investigation, Van Helmont was still well respected and influential in Vilvorde.²⁴⁷ Butler was in the possession of the Universal Medicine, according to Van Helmont, although he did not share its composition with his friend. Instead, Van Helmont confesses to have pondered and meditated upon Butler's stone for a long time.²⁴⁸ Eventually, he grasped Butler's secret and claimed to have made the Universal Medicine (*Drif*) himself.²⁴⁹

Who was this Butler? Attempts to discover his identity have failed thus far.²⁵⁰ In 1652, the *Ephemerides* of Samuel Hartlib show that Frederick Clodius (1625-c.1661),

²⁴² Harline, *Miracles*, p. 215.

²⁴³ Halleux, 'Le procès', pp. 1080-1081.

²⁴⁴ Although Van Helmont's 'Butler' treatise did not mention the year of their acquaintance, Halleux, 'Helmontiana I', inferred from several pieces of information that it happened in 1625. Indeed, Van Helmont talks about Butler curing his wife who had 'contracted these Oedema's by reason of the grief for my tribulation' and that she 'also through Gods favour, liveth as yet nineteen Years since, in health', Van Helmont, chap. 79, 'Butler', p. 588. Van Helmont's problems began in 1625, and it appears that the final version of the papers was prepared in 1644 (nineteen years later), right before his death the same year.

²⁴⁵ Van Helmont, chap. 79, 'Butler', p. 587, 'Butler', p. 467.

²⁴⁶ Van Helmont, chap. 79, 'Butler', p. 588, 'Butler', p. 468.

²⁴⁷ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 17, 'Zenexton', p. 1150, 'Tumulus pestis', chap. 17, 'Zenexton', p. 884.

²⁴⁸ Van Helmont, chap. 79, 'Butler', p. 594, 'Butler', p. 474.

²⁴⁹ Van Helmont, chap. 79, 'Butler', p. 595, 'Butler', p. 475. For more on this topic, please refer to chapter 4.3. On Man.

²⁵⁰ Halleux, 'Helmontiana I', p. 40, thinks 'Butler' was an adventurer who assumed the identity of one William Butler of Ipswich, a physician who died in 1617 or 1618. Although that is a possibility, this William Butler was an Englishman while Van Helmont's Butler is identified as an Irishman. Furthermore, I do not see why there might not have been another unrecorded Butler that was practicing alchemy during the period, perhaps someone related to the Irish Butler family. Obviously, further research is required.

Hartlib's alchemist son-in-law, was trying to obtain the manuscripts of Butler from a certain Higgins of Limerick, who claimed to have been Butler's servant.²⁵¹ Unfortunately, no update on this matter was produced, and the fact that two more persons – one in Amsterdam and one monk named Collen – also claimed to have the documents raises the question of whether any or all of those documents were genuine.

Indeed, the Sloane collection at the British Library holds a manuscript by 'Buthler, philosophe anglais', which has obviously been transcribed in a neat hand in the French language.²⁵² It is difficult to ascertain the provenance of this manuscript, entitled 'Traité de l'usage de pierre', but the content is well in line with Van Helmont's description of Butler's stone as a universal medicine. Nevertheless, one cannot exclude the possibility that this was written after Van Helmont's writings had propelled the legend of Butler into the alchemical consciousness. However, I would not completely exclude the possibility of an alchemist named Butler that Van Helmont actually met.

Van Helmont also began a legal action in 1629, demanding the division of the revenues originating from his wife's inheritance, the estate of Pellaines, which had previously remained undivided in the family of Mérode. He hence obtained for his wife 3,511 florins. The court's decision was disputed even after Van Helmont's death; in 1647, Jean de Mérode opened trial against Van Helmont's widow demanding the annulment of the decision. Mérode lost, and was condemned to leave to the van Ranst the majority of the Pellaines estates. The trial only ended in 1663.²⁵³ Van Helmont's involvement in this legal action reveals on one hand, that his private concerns were not thwarted by the Inquisition's case at this point, and on the other, that the otherwise selfless physician was concerned to ensure his wife and children's financial future.

In May 1629, Van Helmont received a visit from the French philosopher Pierre Gassendi (1592-1655). Gassendi, clearly fascinated by the topic of the weapon-salve, had first met Jean Roberti, then theologian Libert Froidmont (1587-1653) and Thomas Fyenus. He then paid a visit to Van Helmont to discuss the weapon-salve and magnetism. Gassendi accepted the reality of the salve, but typically proposed a corpuscularian explanation for its action.²⁵⁴ They conversed for several days and then corresponded with each other on such issues as whether prelapsarian man was naturally

²⁵¹ 'Mr Clodius lodging in the same house <at Amsterdam> with Colonel Dillon an Irish-man-Papist he told him of Higgins of Limbrick that being Butler's man should have gotten all Butler's Arcana', HP 28/2/28A-28B, 'Ephemerides', 1652.

²⁵² London, British Library, MS Sloane 2879, fols 50^f -74^v.

²⁵³ Stroobant, 'Les origins', pp. 152-153.

²⁵⁴ Pierre Gassendi, *Opera omnia*, 6 vols (Lyon: Anisson, 1658), I, 456.

carnivorous or vegetarian.²⁵⁵ Van Helmont considered that man, as a microcosm, contained within himself all animals and as such had to be carnivorous, while Gassendi took the position that meat-eating was unsuited for humans.²⁵⁶ Despite their formal disagreement, the letters preserved in the Gassendi collection leave the impression of profound esteem between the two natural philosophers. In fact, impressed by the Flemish physician, Gassendi recommended him to Marin Mersenne, who first came in contact with him in May 1630.²⁵⁷

Van Helmont conducted a bulky correspondence with Mersenne between June 1630 and July 1631. He offered his opinions on the writings of Jacques Gaffarel (1601-1681), who had favourably quoted from his *De magnetica* in his *Curiosities inouyes* (1629) and on Robert Fludd, whom he had met in England; he also answered a large number of questions from Mersenne in regards to medicine, alchemy, theology and philosophy.²⁵⁸ His letters reveal that he was well immersed in the political realities of his day, as he sent Mersenne information about the military situation of Belgium, and the actions of French and Flemish nobles in Brussels.²⁵⁹ His good standing at the Flemish court is also revealed by the fact that he wanted to place one of his sons as page to the Ambassador to Constantinople.²⁶⁰

On 23 October 1630, the University of Louvain finally published a decision censuring Van Helmont's writings. It was signed by five theologians – Guillaume Fabricius, Gilles de Bay, Guillaume Merchier, Jean Wiggers and Henri Rampen and two physicians, Thomas Fyenus and Gerard de Villers, the same ones that had censured the 1624 Cologne *Propositiones*. The latter concurred with the theologians' judgment but only in regards to the Paracelsian propositions. Eight other physicians (Martin Remy, Louis du Gardin, Philippe Becquet, Eric Southemius, Petrus Holzemius, Michel Ogier, Charles Ogier, Jean Nollens and, unsurprisingly, Henri de Heer) supported the action in general terms. The widespread support of the indictment by these local physicians made Halleux wonder if, in fact, the case was fueled by the medical

²⁵⁵ Gassendi, *Opera omnia*, VI, 19-24.

²⁵⁶ Joseph Bougerel, *Vie de Pierre Gassendi* (Paris: J. Vincent, 1737), pp. 48-57.

²⁵⁷ 'Jean-Baptiste Van Helmont, à Malines, à Mersenne, à Bruxelles: Juin 1630', II, 496-498.

²⁵⁸ On Jacques Gaffarel's work, see Van Helmont's letter of 26 September 1630, 'Jean-Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris: 26 Septembre 1630', II, 530-541; on Robert Fludd, letter of 19 December 1630, II, 582-594; Van Helmont's answers to Mersenne's questions extend in several letters, see III, 10-20, 31-51, 52-151.

²⁵⁹ 'Jean-Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris: 21 Février 1631', III, 124; 'Jean-Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris: 1 Mars 1631', III, 139 on the duke of Vendome and duke of Niebourg.

²⁶⁰ '21 Février 1631', III, 123.

establishment rather than the Jesuits.²⁶¹ However, Mark Waddell believes that the Jesuits still played a major role in Van Helmont's persecution, as they had to counteract his attack on their authority, as well as his anti-Scholastic natural philosophy and alleged heresy.²⁶² The truth may be somewhere in the middle: Van Helmont roused the ire of both the Jesuits and the Galenic physicians, who banded together in face of a common threat.

Acting on the Louvain response, the Mechelen prosecutor interrogated and then asked Van Helmont to publicly retract his weapon-salve treatise. The Louvain theologian Johannes Schwenckelius wrote a list of statements that Van Helmont had to retract and finally recommended the banishment of the physician from the Southern Netherlands.²⁶³ In response, Van Helmont agreed to admit his guilt and withdraw his comments. The case was suspended without taking action on Schwenckelius' final recommendations.

Van Helmont enjoyed four years of respite. He continued to correspond with Marin Mersenne, who unsuccessfully tried to get the physician to come to France in 1631, and asked for Jan Baptista's advice in regards to the infertility of the marriage between King Louis XIII (1601-1643) and Anne of Austria (1601-1666).²⁶⁴ Van Helmont claimed that he could make the princess become pregnant by magnetism and wanted to come to France to disclose his secret to the King, but the rest of the correspondence has been lost. However, a *concilium* (medical consultation) in regards to the conception of a certain prince was found amongst Van Helmont's seized papers, and in his interrogatory of 24 March 1634, the physician admitted that he had made adnotations on it, while denying that it was his consultation.²⁶⁵ Halleux surmises, however, that the whole *concilium* was given by Van Helmont himself to Mersenne in regards to Louis XIII's infertility.²⁶⁶

It was apparently not the only encounter of Jan Baptista with French politics. He took an active interest in the relations between France and Belgium, informing Mersenne of issues arising at the Belgian court.²⁶⁷ Moreover, amongst the papers confiscated by the Inquisition one can find the horoscope of the Cardinal de Richelieu

²⁶¹ Halleux, 'Helmontiana I', pp. 54-57.

²⁶² Waddell, 'The Perversion of Nature', pp. 190-192.

²⁶³ As this statement was never signed, Harline wonders if it was ever shown to Van Helmont; Harline, *Miracles*, p. 219.

²⁶⁴ '1 Mars 1631', III, 138-140; '29 Mars 1631', 151-155. Anne of Austria managed to have a son, the future Louis XIV, only in 1638, when she was thirty-seven.

²⁶⁵ Broeckx, 'Interrogatoires', pp. 348-349.

²⁶⁶ Halleux, 'Le procès', p. 1078.

²⁶⁷ For instance, '1 Mars 1631', III, 139-140, '8 Mars 1631', 141-142, 146, '29 Mars 1631', 151-154.

(1585-1642). Questioned about this, Van Helmont affirmed that it was given to him by Count Luca Fabroni, a favourite of the Queen Mother Maria de Medici (1573-1642), to find out about Richelieu's political intentions.²⁶⁸ Fabroni, a Florentine nobleman, was not only Maria de Medici's confidant but a famed astrologer, who had predicted Louis XIII's early death.²⁶⁹ It is surprising that such an inveterate astrologer like Fabroni would approach Van Helmont, considering that the latter emphatically rejected judicial astrology in his works.

The French physician Guy Patin (1601-1672) later affirmed that Van Helmont was saved from being burnt at the stake by the intervention of the Queen Mother.²⁷⁰ In light of the trial records, the possibility that Van Helmont might have been condemned to death was remote, but it is clear that Patin was voicing some rumours that implicated the Flemish philosopher with the French faction that opposed Richelieu. During this period, the Flemish and Spanish authorities took an active position in the quarrel between the Queen Mother and the anti-Spanish Cardinal de Richelieu by supporting her party and even welcoming her for a visit that took place in August 1631.²⁷¹ It was most likely during this visit that the Queen's protégé Fabroni came in contact with Van Helmont to obtain advice on her adversary Richelieu. Patin's affirmation strengthens the impression that the Flemish physician developed a rather close, if slightly nebulous, relationship with the Queen Mother's party.

Van Helmont may have thought the matter of the weapon salve closed, but the tide turned in 1634. By then, tempers in Belgium were flaring due both to political problems and the religious-medical controversies surrounding William Harvey.²⁷² In the midst of this intellectual turmoil, someone published Van Helmont's weapon-salve treatise again, this time at Liège, in the heartland of the Southern Netherlands. The court was not prepared to be as lenient as it had been in previous years. On 3 March, Van Helmont was arrested, his house was searched and all his papers confiscated. On 6 March, the physician signed a declaration whereby he submitted to the judgment of the Ecclesiastical Court. He was thereby confined in a Franciscan convent against a bail

²⁶⁸ Broeckx, 'Interrogatoires', p. 45.

²⁶⁹ Julia Pardoe, *The Life of Marie de Medicis, Queen of France*, 3 vols (London: Colburn, 1852), III, 482; Herve Drevillon, *Lire et écrire l'avenir: l'astrologie dans la France du Grand Siècle, 1610-1715* (Paris: Champ Vallon, 1996), particularly pp. 118, 165, 218.

²⁷⁰ Guy Patin, *Lettres* (Paris: J.H. Reville-Parise, 1846), 16 December 1649.

²⁷¹ Henne and Wauters, *Histoire de la ville*, pp. 48-49.

²⁷² De Waele, *J-B Van Helmont*, pp. 35-36. Most information presented henceforth originates from De Waele, *J-B Van Helmont*, pp. 35-40.

amount of 6,000 florins. This was promptly paid by Wilhelm van Ranst, his step-brother.²⁷³

On 17, 21 and 24 March Van Helmont had to present himself at the Mechelen tribunal and answer its questions. On 18 March, he wrote a letter requesting permission to stay at home; this was granted against a surety of 6,000 florins if he left the house without permission. Henceforth, Van Helmont was to be held in house arrest until 1636, despite the insistent interventions of his mother-in-law, Isabelle van Halmale, to the Chancellor of Brabant requesting Van Helmont's freedom (6, 23, 27 May, 5 July). The petitions of Halmale were based on the arguments that Van Helmont could not be accused of heresy when he had declared his own orthodoxy and brought many attestations in this respect, and that the ecclesiastical case was against the laws and customs of the land.²⁷⁴ In turn, the Chancellor demanded the advice of three lawyers, the Archbishop of Mechelen and the official of the curia. The lawyers and the Archbishop gave him an ambiguous answer, while the official produced seventy-nine court rulings without providing his own views of the matter. On 23 and 24 October 1634, the Van Helmont family came back with another request and new proofs of orthodoxy.²⁷⁵

During this time, to compound Van Helmont's misery, a plague broke out in Brussels, which carried on for three years (1635-1638).²⁷⁶ Confined to his house, the physician could do nothing to alleviate the sufferings of the sick; he did, however, request and receive an authorisation to exit for one day in order to tend an ill person. When his two eldest sons caught the disease, Van Helmont apparently helped them recover and then sent them to a convent to convalesce under strict supervision. However, as he later admitted, the strict medicine and diet he recommended was not kept up and the boys died once removed from their father.²⁷⁷ Although the stoic Jan Baptista does not comment in depth on this tragic chapter of his life, a simple phrase in the treatise 'On the Plague-Grave' conveys the sense of his sorrow: 'the loss of these my Sons, I frequently behold, as if it were present; and thou mayest suppose that it gave a beginning unto this Treatise'.²⁷⁸

²⁷³ De Waele, *J-B Van Helmont*, p. 36.

²⁷⁴ Halleux, 'Le procès', pp. 1074-1075.

²⁷⁵ Halleux, 'Le procès', pp. 1075-1076.

²⁷⁶ Henne and Wauters, *Histoire de la ville*, p. 61.

²⁷⁷ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 14, p. 1135; 'Tumulus pestis', chap. 14, 'Proprietas pestis', p. 873.

²⁷⁸ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 14, p. 1135; 'Tumulus pestis', chap. 14, 'Proprietas pestis', p. 873: 'Horumque jacturam velut presentem, frequenter intueor, hujusque tractatus initium dedisse putaveris'.

2.2.1.3. Old Age (1637-1644)

Finally, on 16 March 1637, the Brabant court demanded the prosecutor of the Ecclesiastical Court to release Van Helmont against a bail of 6,000 florins. No decision of condemnation or otherwise was ever taken.²⁷⁹ However, the formal proceedings were only concluded in 1642, when Van Helmont was finally allowed to publish again.

In December 1638, Van Helmont addressed a complaint to the Archbishopric of Mechelen in which he deplored the injustice done to him and demanded his papers back.²⁸⁰ Unfortunately, these were never returned to him, and are still in the possession of the Archbishopric today. He undoubtedly desired the papers for his magnum opus; he seems to have spent the rest of his life working on producing his main work.

There are signs that it was in the latter part of his life that he became better known and respected. This may be due to the publishing of a new treatise, *De Febrium doctrina inaudita* in Antwerp in 1642, followed by the *Opuscula medica inaudita* and *Tumulus pestis*, published in 1644 in Cologne.

In the meantime, Prince Frederick II of Schleswig-Holstein, who was highly keen on alchemy, seemed to have contacted him to obtain secrets, particularly the coveted and mysterious Liquor Alkahest. According to a note by Robert Boyle to Samuel Hartlib, found in manuscript form in the Royal Society, the Prince sent a great gift to Van Helmont in an attempt to entice him to share his secret. Apparently, Van Helmont died before receiving it, and all Frederick could get was a version of the Alkahest from his widow – not a very good one according to Otto Tachenius (1610-1680) – as well as a number of manuscripts. These intriguing manuscripts called ‘Canon Alkahesticus’ were apparently brought to London by an unknown German alchemist around 1659-1660.²⁸¹ Boyle reports that he convinced this alchemist to publish the manuscripts, but unfortunately they were burned in the 1666 fire of London, save for one single page.²⁸²

Van Helmont died on the 30 December 1644, probably in Brussels.²⁸³ His son Francis Mercury talked at length about his father’s death, attributing it to a pleurisy

²⁷⁹ De Waele, *J-B Van Helmont*, p. 39.

²⁸⁰ De Waele, *J-B Van Helmont*, p. 39.

²⁸¹ The date is surmised by Clericuzio, ‘From van Helmont to Boyle’, p. 312.

²⁸² London, Royal Society, MS 187, fols. 35^v-37^r; also Robert Boyle, ‘An Account of the Two Sorts of the Helmontian Laudanum, Communicated to the Publisher by the Honourable Robert Boyle’, *The Philosophical Transactions* 9 (26 October 1674), 147-149.

²⁸³ Nauwelaers, ‘La Maison’, pp. 174-177.

carried for seven weeks.²⁸⁴ Jan Baptista was not only conscious and in possession of his wits till the last moment, but he even predicted the time of his own death. Francis' commentary was undoubtedly intended to counteract malevolent rumours according to which Van Helmont had gone mad. Thus, Guy Patin had this to say as an epitaph: 'Helmont was an evil Flemish scoundrel who died mad several months ago [...] This man supported only a medicine based on chymical and empirical secrets, and [...] since he attacked strongly the practice of bleeding, he died enraged.'²⁸⁵ It was precisely this idea that Francis sought to refute by his in-depth description of his father's last moments.

In 1646, Van Helmont's widow obtained a posthumous rehabilitation from the Archbishop of Mechelen.²⁸⁶ The place of interment of the physician is not known. Desmarez found a tombstone in the St. Gudula church in Brussels bearing the Van Helmont coat-of-arms, which he attributed to Van Helmont.²⁸⁷ However, his claim has not been endorsed by scholarship.

2.2.2. Van Helmont's Works and his Project of 'Christian Philosophy'

2.2.2.1. Published and Manuscript Works

Due to Van Helmont's ecclesiastical trial, his publications during his lifetime were scant. Apart from his infamous weapon-salve treatise, another published work was his short commentary *Supplementum de Spadanis fontibus* (1624), later re-edited in Antwerp (1646). In 1642, Van Helmont finally published another treatise, *De febrium doctrina inaudita*, followed by the *Opuscula medica inaudita* and *Tumulus pestis* (1644). Van Helmont's magnum opus, *Ortus medicinae*, was published only posthumously in 1648 by Elzevier in Amsterdam, through the intercession of Francis Mercury Van Helmont.

The *Ortus* had a tremendous impact on the period, being re-printed in 1651 in Venice, 1652 in Amsterdam, 1655 and 1667 in Leiden, 1661, 1681, 1682 and 1707 in Frankfurt, and 1707 in Copenhagen. In 1662, the English version *Oriatrike* was published in London, followed by new editions in 1664 and 1682. The French version was published in Lyon in 1670, while the German edition was published in 1683 in

²⁸⁴ Francis Mercury Van Helmont, 'To the Friendly Reader', pp. [1-2].

²⁸⁵ Qtd in De Waele, *J-B Van Helmont*, p. 40, my translation.

²⁸⁶ Halleux, 'Le procès', p. 1083.

²⁸⁷ Desmarez, 'L'État civil', pp. 14-15.

Sulzbach. In 1659, the Dutch-language *Dageraad* appeared in Amsterdam, followed by a new edition in 1660 in Rotterdam. The *Dageraad* has been deemed an earlier version of the *Ortus*, written in Dutch.²⁸⁸

In addition to this published work, the Archives of the Archbishopric of Mechelen contain five more treatises and a large manuscript belonging to Van Helmont's pre-1634 period. Three of the treatises are commentaries on Hippocrates: one on *Peri Diatiz* ('On Regimen'), one on *Peri Trophis* ('On Aliments') and one on *Peri physon* ('On Airs' or 'On Winds'). Another work is the aforementioned *Eisagoge in artem medicam à Paracelso restitutam authore J. B. de Helmonti*, his earliest work. The manuscripts also contain the 'Ad judicem neutrum causam appellat suam et suorum philadelphus' (c.1621-1626), and an unfinished manuscript of about 150 pages tentatively called *Speculum philosophicoiatron*. This manuscript was probably the infant state of *Ortus medicinae*.

Finally, there are several documents that have not survived, having been lost or destroyed after Van Helmont's death. The 'Canon Alkahesticus' manuscript Robert Boyle referred to as having been consumed in the Great Fire has already been mentioned. Additionally, Samuel Hartlib recounts that a large volume of Van Helmont's letters had similarly been burned when one of his houses was looted and set on fire.²⁸⁹

2.2.2.2. *The Making of Van Helmont's Christian Philosophy*

Until today, Helmontian scholars have mostly paid attention to the *Ortus medicinae*, the posthumous magnum opus.²⁹⁰ The development of Van Helmont's thought has never been analysed carefully. Although this study is still focussed on the 'Christian Philosophy' of the *Ortus*, it also aims to take into account the major changes that occurred in Van Helmont's thought from his earliest to the last work. In this sense, I propose a periodisation of the writings of Van Helmont as follows: the early period, roughly corresponding with his youth and comprising the *Eisagoge* (1607); the middle

²⁸⁸ Pagel, *Joan Baptista Van Helmont*, pp. 14-17; Halleux, 'Helmontiana I', p. 36.

²⁸⁹ 'By some bodies instigation Gleen was made to fall vpon some of Helmonts houses which he plundered and set on fire, wherin many excellent writings of his perished. Amongst others a great Volume of letters written by himself and by others to him about many Arcanae', HP 28/2/24B, 'Ephemerides', 1651.

²⁹⁰ Some exceptions are: Robert Halleux, 'Theory and Experiment,' 'Helmontiana II' and Hiro Hirai, *Le concept de semence dans les théories de la matière à la Renaissance, de Marsile Ficin à Pierre Gassendi* (Turnhout: Brepols, 2005), pp. 440-450. However, nobody has undertaken a serious study of the development of Helmontian thought.

period, covering his mature writings (1616-1634), and the late period, starting with his house arrest and stretching until his death in 1644.

Based on this proposed periodisation, the following sections will investigate the main writings of each stage, attempting to observe how the project of Christian Philosophy evolved throughout Van Helmont's life. The issue of overt or covert influences will also be addressed. Another purpose will be to clarify whether Christian thought and medical alchemy were a central concern of Van Helmont's writings from the beginning.

2.2.2.2.1. *The Early Period: Eisagoge (1607)*

As shown in the previous chapter, young Van Helmont claimed to have had his first divine vision on the banks of the Calloo river in 1599.²⁹¹ Based on the revelation, he eventually sat down to write his first work, *Eisagoge in artem medicam à Paracelso restitutam*, which he completed in 1607. The Archives of the Archbishopric of Mechelen (Malines) preserves this manuscript, which bears a title page, the picture of Paracelsus cut out from a previous publication, a prologue and a laudatory poem.²⁹² It is by no means clear why Van Helmont never published this treatise, as its manuscript looks like it was ready for printing.²⁹³

As Halleux and Clericuzio have pointed out, and Hirai confirmed, the *Eisagoge* is less of a commentary on Paracelsus and more of a paraphrase of the ideas of the Danish physician Petrus Severinus.²⁹⁴ In fact, some passages seem literally copy-pasted from the *Idea medicinae philosophicae* (1571).²⁹⁵ *Eisagoge* is an attempt to summarise Paracelsus's physical and medical ideas, and unsurprisingly, it is to Paracelsus that all praise is reserved. Van Helmont presents the Swiss physician as 'the pride of Germany',²⁹⁶ 'the illuminated medical and mathematical Adept',²⁹⁷ and the restorer of the true Hermetic school.²⁹⁸ Paracelsus is portrayed in sharp contrast with Galen, who had altered the old medicine with his fantasies.²⁹⁹

²⁹¹ Broeckx, 'Le premier ouvrage', I, 339-343.

²⁹² On the contents of the Archives, see also Halleux, 'Helmontiana II', p.19. I have had the opportunity to peruse the manuscripts at the Archives of the Archbishopric of Mechelen with the kind support of a grant from the Society for the History of Alchemy and Chemistry.

²⁹³ Halleux thinks this is because Van Helmont was not completely pleased with it and in time he distanced himself from Paracelsus; 'Helmontiana I', p. 37.

²⁹⁴ Halleux, 'Theory and Experiment,' p. 97; Clericuzio, 'From van Helmont to Boyle', p. 307; Hirai, *Le concept de semence*, pp. 441-445.

²⁹⁵ Hirai, *Le concept de semence*, pp. 441-445.

²⁹⁶ Broeckx, 'Le premier ouvrage', I, 366: 'Paracelsus totius Germaniae decus'.

²⁹⁷ Broeckx, 'Le premier ouvrage', I, 337.

²⁹⁸ Broeckx, 'Le premier ouvrage', II, 176.

²⁹⁹ Broeckx, 'Le premier ouvrage', I, 358-359; II, 167.

Apart from Paracelsus and Galen, there is a dearth of references to other writers or thinkers. Van Helmont briefly expresses a rather negative opinion of Aristotle, although he does not pronounce himself so categorically against him as he would later on.³⁰⁰ He also praises the physician Jean Fernel for his attempt to bring occult causes as well as some alchemical explanations into medicine.³⁰¹ Apart from that, the other sources of his analysis are not acknowledged.

We can find seeds of the future Christian Philosophy in the *Eisagoge*. Van Helmont reiterates Paracelsus's opinion that the physician is created by God directly, an idea he would fondly cherish until death.³⁰² Van Helmont also upholds the idea that the *semina* are planted into the elemental matrices by God and the Word.³⁰³ More importantly, we can find in the manuscript a strong and genuine religious feeling. Thus, the dedicatory poem is addressed to God Himself and is accompanied by several quotations from Psalms.³⁰⁴ His prologue begins with Van Helmont's prayer to God to show him the true Cabala of Hermes (*Hermetis cabala*) that would allow him to help the sick.³⁰⁵ His wish granted, Van Helmont has a vision whereby he enters into a palace where he sees a large number of old men. Significantly, these have wings and halos around their head.³⁰⁶ Nevertheless, Van Helmont soon clarifies that this is not a reunion of saints or of angels, but one of philosophers, amongst whom Hermes Trismegistus reigns supreme.³⁰⁷ These are in fact 'the members and mystagogues (*symmista*) of the most secret and truest medicine.'³⁰⁸ These are partakers of the 'secrets of our Lord Sabaoth'.³⁰⁹ This brief introductory statement is also a type of manifesto of Van Helmont's intentions: that of uncovering the true Christian knowledge of philosophical medicine, which for him was hidden in alchemical ideas and practice.

2.2.2.2.2. The Middle Period: *De magnetica*, '*De Spadanis fontibus*', Mersenne letters and Manuscript Writings (1616-1634)

More than ten years of silence would pass before Van Helmont wrote again, a period corresponding with his years of quiet practice and reading in Vilvorde. When he

³⁰⁰ Broeckx, 'Le premier ouvrage', I, 388.

³⁰¹ Broeckx, 'Le premier ouvrage', I, 348, 359. His praise reflects the appreciation of Petrus Severinus, Van Helmont's chief source for the *Eisagoge*, for Fernel's work in the *Idea medicinae*.

³⁰² Broeckx, 'Le premier ouvrage', I, 353; on Van Helmont's views of the physician, see chapter 4.3. On Man.

³⁰³ Broeckx, 'Le premier ouvrage', I, 366.

³⁰⁴ Broeckx, 'Le premier ouvrage', I, 343-345.

³⁰⁵ Broeckx, 'Le premier ouvrage', I, 340; Halleux, 'Helmontiana II', p. 20.

³⁰⁶ Broeckx, 'Le premier ouvrage', I, 340; Halleux, 'Helmontiana II', p. 21.

³⁰⁷ Broeckx, 'Le premier ouvrage', I, 341.

³⁰⁸ Broeckx, 'Le premier ouvrage', I, 341.

³⁰⁹ Broeckx, 'Le premier ouvrage', I, 341.

takes up his pen again, it is to involve himself in one of the greatest intellectual debates of the early seventeenth century, that of the weapon salve. Published in 1621, *De magnetica vulnerum curatione* (*On the Magnetick Cure of Wounds*, henceforth '*De magnetica*') is written as a pamphlet against the two initiators of the debate: the Jesuit Father Roberti and the Paracelsian Goclenius.³¹⁰

Van Helmont begins with a criticism of Goclenius; although he agrees with the latter's assessment that the ointment acts by purely natural means, he denies that the magnetism is exclusively due to astral influence. Van Helmont insists that magnetism is a phenomenon that occurs within the sublunary world as well and does not directly depend on astral intervention.³¹¹ Beings have a celestial virtue within themselves which drives them toward others of similar character.³¹² This action at a distance is mediated, Van Helmont argues, by the Spirit of the World, which is a 'mind or intelligence diffused through the Limbs of the Universe'.³¹³ Van Helmont further criticises Goclenius's use of antique sources and proposes instead examples taken from everyday medical practice, which to him have more validity.³¹⁴

If Van Helmont appears critical of Goclenius's arguments, he spares no kind word for those of Roberti. He denies that priests and divines can emit valid opinions in regards to nature, for, he states, 'Nature from thenceforth, called not Divines for to be her Interpreters: but desired Physitians only for her Sons; and indeed, such only, who being instructed by the Art of the Fire'.³¹⁵ He controversially claims that the miracles of St Hubert and St Paul are similar to magnetic cures, blurring the traditional difference between natural and supernatural occurrences.³¹⁶ Van Helmont further engages in anti-Jesuit rhetoric. He maintains, with no light irony, that a Jesuit's head is just as useful for

³¹⁰ This version of 1621 is extremely difficult to come by, so in my comments I have used the version in the *Ortus medicinae* (1652, chapter 112).

³¹¹ Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', p. 771: 'all particular created things have their own Heaven within them, and the Revolution of that Heaven depending on the Being of their Seed, in whose Spirit [...] is their own Heaven'; '*De magnetica vulnerum curatione*', p. 604: 'Verumenimvero creates singulis suum inest coelom, coelique rotation, dependens ex ente seminis, in cujus spiritu....suum est coelum'.

³¹² Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', pp. 772-773, '*De magnetica vulnerum curatione*', p. 605.

³¹³ Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', p. 775, '*De magnetica vulnerum curatione*', p. 606: 'spiritus intus alit, totamque diffusa per artus mens agitat molem'.

³¹⁴ Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', pp. 764-765, '*De magnetica vulnerum curatione*', pp. 598-599.

³¹⁵ Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', p. 761, '*De magnetica vulnerum curatione*', p. 596: 'natura idcirco abinde, non Theologos in sui interpretes vocavit; sed solos Medicos in filios optavit, & quidem tales duntaxat, qui pyrotechnia instructi'.

³¹⁶ Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', p. 769; '*De magnetica vulnerum curatione*', p. 602.

the weapon-salve as the head of a common thief.³¹⁷ He further mocks the Jesuit founder Ignatius of Loyola (1491-1556).³¹⁸ Obviously, such statements could not but rouse the ire of any Jesuit reader.

De magnetica is essentially a defence of magic, both natural and ‘Cabalistical’. Here, the Hermetic Cabala already referred to in the *Eisagoge* reigns supreme; by means of it enlightened persons could reach a type of mystical state that would then allow them to act as all-powerful natural magicians. The magical power is a property inherent in any human being as *imago Dei*, though it was obscured after the fall of Adam, and lies only as a potency in the soul.³¹⁹ A ‘re-awakening’ is required, which he believes to be enabled by the practice of the Christian Cabala.³²⁰ Most if not all of Van Helmont’s ideas have their roots in Paracelsus, and particularly the *Astronomia magna*, also mediated by Oswald Croll.³²¹

It is true that Van Helmont prefers to focus on the unconscious natural magic that all things exercise. This natural magic is defined as the universal attraction and repulsion of things, or universal sympathy. The weapon salve, which he sets out to defend, simply makes use of the natural forces of nature, with no superstition or demonic intervention. Van Helmont further affirms that the power that witches wield is a natural human one, which has been re-awakened for evil purposes by Satan himself.³²² Thus, the difference between witchcraft and good natural magic lies in intention rather than action.³²³

De magnetica, like most of Van Helmont’s works, is sparse in references. Van Helmont mentions Paracelsus and William Gilbert (1544-1603), the author of the influential *De magnete*; in addition, there is an indirect reference to Johann Tauler, the German *Leibmeister* and follower of Meister Eckhart (c. 1260-1327), who undoubtedly

³¹⁷ Van Helmont, chap. 112, ‘Of the Magnetick or Attractive Curing of Wounds’, p. 768, ‘De magnetica vulnerum curatione’, p. 602.

³¹⁸ Van Helmont, chap. 112, ‘Of the Magnetick or Attractive Curing of Wounds’, p. 770, ‘De magnetica vulnerum curatione’, p. 603.

³¹⁹ Van Helmont, chap. 112, ‘Of the Magnetick or Attractive Curing of Wounds’, pp. 783-785, ‘De magnetica vulnerum curatione’, pp. 612-614.

³²⁰ Van Helmont, chap. 112, ‘Of the Magnetick or Attractive Curing of Wounds’, p. 784: ‘Man himself is able through the Art of the Cabal, to cause an excitement in himself, of so great a Power at his own Pleasure, and these are called Adeptsists’; ‘De magnetica vulnerum curatione’, p. 613: ‘ipse homo sibi, per artem cabalae, excitamentum tantae potestatis, ad suum lubitum causare, vocantur hi adepti, quorum etiam rector spiritus Dei est.’

³²¹ See chapter 3.

³²² Van Helmont, chap. 112, ‘Of the Magnetick or Attractive Curing of Wounds’, pp. 782-783, ‘De magnetica vulnerum curatione’, pp. 611-613.

³²³ Van Helmont, chap. 112, ‘Of the Magnetick or Attractive Curing of Wounds’, p. 784, ‘De magnetica vulnerum curatione’, p. 613.

had an impact on the mystical side of Van Helmont's Christian Philosophy.³²⁴ It is not the only occasion Van Helmont quotes Tauler; he refers to him in the *Ortus medicinae* as a formative figure on his earlier thought, even if he then refutes his opinion on the soul.³²⁵ Furthermore, one of his confiscated papers mentions Tauler's mystical doctrine. The importance of Tauler's ideas to Van Helmont will be explored further in the chapter 4.3, 'On Man'.

Most importantly, in *De magnetica* we see the first articulation of Van Helmont's idea of a Christian Philosophy. Having explained his theory of the natural magic intrinsic within all things, he exclaims: 'Behold! Thou hast our Christian Philosophy, not the Dotages or idle Dreams of Heathens.'³²⁶ The statement suggests that at this point he believed that a Christian Philosophy had already been formulated in the works of the supporters of the weapon-salve, the Paracelsians.³²⁷ He saw himself as a spokesperson, articulating this obscure philosophy for outsiders. Van Helmont also believed that this Christian Philosophy was compatible with Catholicism, since the previous statement is immediately followed by a declaration of faith, whereby Van Helmont affirms his firm adherence to the Roman Church.³²⁸

Van Helmont's confiscated manuscripts reveal that he was only getting started in his new-found role of defender of Paracelsian ideas. He soon began to write a follow-up to *De magnetica*, the 'Ad Judicem neutrum causam appellat suam et suorum philadelphus' (henceforth 'Ad Judicem'), a work that reveals a keen attention to the Bible, now used to refute Roberti's ideas and to confirm Van Helmont's own orthodoxy.³²⁹ The idea of the sacred nature of the physician and his election is re-affirmed;³³⁰ Van Helmont states that the true *medicus* is inspired by the angel Raphael, an idea that he will return to in the beginning of the *Ortus*.³³¹ At this point the Flemish physician also refers more closely to Paracelsus's Christian ideas from *Astronomia*

³²⁴ Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', p. 776, 'De magnetica vulnerum curatione', p. 607.

³²⁵ Van Helmont, chap. 2, 'The Authors Studies', p. 12, 'Studia authoris', p.15; chap. 35, 'The Image of the Mind', p. 267, 'Imago mentis', p. 216.

³²⁶ Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', p. 793, 'De magnetica vulnerum curatione', p. 620: 'En habes nostrum, id est, Christianam philosophiam, non ethnicorum deliria'.

³²⁷ He is probably referring to Oswald Croll, the defender of the weapon-salve and first to mention 'Christian Philosophy' in his work. See below, chap. 3.

³²⁸ Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', p. 793. 'De magnetica vulnerum curatione', p. 620.

³²⁹ Broeckx, 'Van Helmont: Ad Judicem', pp. 93, 118. The references to Deuteronomy and Leviticus are added in margin at a later date.

³³⁰ On this theme, drawn from Ecclesiasticus (Jesus Sirach) 38.1, see also Debus, *The Chemical Philosophy*, p. 52.

³³¹ Broeckx, 'Van Helmont: Ad Judicem', p. 108.

magna. Thus, he affirms that the true philosopher is inspired by the Light of Nature, which in turn is illuminated by the Holy Spirit.³³²

Yet the central point of ‘Ad Judicem’, and the one which attracted most of the Inquisition’s ire, was the list of propositions that Van Helmont claimed to be demonstrated *per ignem*. This list ranges from proofs that everything originated out of the Word *Fiat* and that the seed contains a *spiritus*,³³³ to religious considerations regarding Original Sin, the regeneration of bodies, the nature of Christ, and the immaculate conception of the Virgin Mary.³³⁴ This is by far Van Helmont’s most outspoken affirmation of the compatibility of Christianity and alchemical ideas.³³⁵

From the same period (roughly 1616-1624) dates another famous mature work of Van Helmont, ‘Supplementum de Spadanis fontibus’ (translated as ‘A Supply concerning the Fountains of the Spaw’; henceforth ‘De Spadanis’), published in 1624.³³⁶ In this writing we find Van Helmont’s clearest attempt yet to base his scientific ideas on the Scriptures. His discussion of the Spa waters begins with a quotation from the deuterio-canonical Ecclesiasticus (Jesus Sirach) 40:11; this had affirmed that all water proceeds and returns to the sea.³³⁷ Armed with this Biblical argument, Van Helmont proceeds to claim that what Sirach meant by sea is the ‘receptacle’ or ‘root’ of water, which he identifies as *Quellem* sand (from German *Quelle* or spring, i.e. a watery quicksand).³³⁸ He then turns to the Genesis account, whereby God separated waters from waters, to read the verse as the separation of the ‘external sea’ (the visible waters) from the ‘internal sea’ (the waters within the earth).³³⁹

Proceeding further, he makes another stark affirmation: there are not four elements in the universe, but only two, water and air.³⁴⁰ This again is drawn from a reading of Genesis, more specifically the passage Paracelsian commentators were most fond of, of the Spirit of God hovering above the waters. According to Van Helmont’s interpretation, it is in the matrix of water that the Word sows the *semina* of all things.³⁴¹

³³² Broeckx, ‘Van Helmont: Ad Judicem’, p. 109.

³³³ Broeckx, ‘Van Helmont: Ad Judicem’, pp. 110-113.

³³⁴ Broeckx, ‘Van Helmont: Ad Judicem’, pp. 116-117.

³³⁵ These statements will be further analysed in chapter 4.1 ‘On God’.

³³⁶ I am here using the *Ortus medicinae* version of ‘De Spadanis’, which runs from chapters 94 to 100.

³³⁷ Van Helmont, chap. 94, ‘A Supply concerning the Fountains of the Spaw’, p. 688; ‘De Spadanis Fontibus’, p. 545. Ecclesiasticus 40:11 reads ‘All things that are of the earth shall turn to the earth again: and that which is of the waters doth return into the sea.’ Ecclesiasticus is considered a deuterio-canonical book by the Catholic Church.

³³⁸ Van Helmont, chap. 94, ‘A Supply concerning the Fountains of the Spaw: First Paradox’, p. 689, ‘De Spadanis Fontibus: Paradoxum primum’, p. 546.

³³⁹ Van Helmont, chap. 94, ‘A Supply’, p. 690, ‘De Spadanis’, p. 547.

³⁴⁰ Van Helmont, chap. 94, ‘A Supply’, p. 691, ‘De Spadanis’, p. 547.

³⁴¹ Van Helmont, ‘De Spadanis fontibus’, chap. 96, ‘A Third Paradox’, p. 693; ‘Paradoxum tertium’, p. 549.

Like *De magnetica*, 'De Spadanis' mentions the Cabala, the Adepts and the School of Hermes as well as Hippocrates and Paracelsus, but no one else.³⁴² Instead, it is filled with practical alchemical considerations on vitriol, sulphur and salts.³⁴³ Indeed, Van Helmont argues that the Fire (which he equates with heaven, and implicitly with Paracelsus's Light of Nature) teaches the disciples of the Hermetic School what the truth is.³⁴⁴ This affirmation is not unlike that of 'Ad Judicem', where we find that even the truths of religion can be understood *per ignem*.

Between 1624, the year of 'De Spadanis', and 1642, the year of the *Opuscula medica inaudita*, Van Helmont did not publish anything. However, this gap is partially covered by the manuscripts in Mechelen that were confiscated by the Ecclesiastical Court in 1634, and the correspondence with Mersenne (1630-1631). These manuscripts provide a fascinating insight into Van Helmont's mature mental 'laboratory'.³⁴⁵ They include readings from Cornelius Agrippa's 'On the Original Sin' (*De peccato originale*), the alchemical treatise *Mercurius triumphans*, a medical astrological treatise attributed to Sir Hugh Platt (1552-1611), a chapter of Al Kindi's *De influentiis mundi inferioris* and the anonymous Paracelsian treatise 'Exterior Homo'. These plentifully suggest that the middle Van Helmont was deeply engaged with theological, alchemical and medical ideas.

The three manuscript commentaries on Hippocrates (on *Peri Diatiz*, on *Peri Trophis* and on *Peri Physion*) also reveal more of his sources.³⁴⁶ Van Helmont refers to Cornelius Agrippa's *De vanitate scientiarum*³⁴⁷ and the *Steganographia* of Johannes Trithemius,³⁴⁸ as well as Joseph Du Chesne and Girolamo Cardano (1501-1576).³⁴⁹

³⁴² Van Helmont, chap. 94, 'A Supply concerning the Fountains of the Spaw', p. 690, 'De Spadanis Fontibus: Paradoxum primum', p. 547; chap. 96, 'A Third Paradox', pp. 693, 694, 'Paradoxum tertium', p. 549; chap. 97, 'A Fourth Paradox', p. 696, 697, 'Paradoxum quartum', p. 551; chap. 98, 'A Fifth Paradox', p. 700, 'Paradoxum quintum', p. 554; chap. 99 'A Sixth Paradox', p. 706, 'Paradoxum sextum', p. 555; chap. 100, 'A Paradox of Supplies', pp. 707, 709, 'Supplementorum Paradoxum numero criticum', pp. 558, 559, 560.

³⁴³ Van Helmont, particularly chap. 97 'A Fourth Paradox', pp. 697-700, 'Paradoxum quartum', pp. 551-552.

³⁴⁴ Van Helmont, ('De Spadanis fontibus'), chap 100, 'A Paradox of Supplies', p. 706, 'Supplementorum Paradoxum numero criticum', p. 558.

³⁴⁵ Halleux had signalled the presence of this manuscript which he called *Speculum Philosophicoiatricon* in his 'Helmontiana I', p. 36. My opinion after reviewing the documents is that the correct title is *Speculum Philosophicoiatron*, with the last 'o' in shape of the Greek letter ω. This would be in line with Van Helmont's preoccupation for the ancient roots of medicine, particularly those drawing from Hippocrates.

³⁴⁶ The commentary 'On Winds' appears to be part of the *Speculum* by comparison to the 'On Regimen' and 'On Aliments' which are clearly separate.

³⁴⁷ Corneille Broeckx, *Commentaire de J.B. Van Helmont, Seigneur de Merode, Royenborch, Oirschot, Pellines etc sur le premier livre du regime d'Hippocrate: Peri Diatiz* (Antwerp: J.E. Buschmann, 1849), p. 22.

³⁴⁸ Broeckx, *Peri Diatiz*, p. 26.

These Hippocratic commentaries are focussed on the notion of the *spiritus*, called *cosmocrator*, which animates the *semen* and the mass of the universe.³⁵⁰ This universal *spiritus* is fiery, and moves things by virtue of the fire it contains.³⁵¹ There is a definite attempt to connect the *spiritus* with the Word of God, described as the Spirit of God's mouth which fills the orb of the Earth.³⁵² Van Helmont also associates the cosmic *spiritus* with the Spirit of God which hovers above the waters from the Genesis, which is described as 'fiery' and 'generating'.³⁵³

A similar concern with divine intervention in matter can be deciphered in the manuscript of the *Speculum philosophicoiatron*, which represents an embryonic stage of the future *Ortus medicinae*. In the chapter called 'De origine formarum', Van Helmont affirms that the source of all things is God, and this common source is the reason of the universal harmony and conspiracy of things.³⁵⁴ He appeals to Genesis 1 to show how God created everything *ex nihilo*, an orthodox principle he particularly insists on.³⁵⁵ Again, Van Helmont upholds the generative role of the divine Word.³⁵⁶

In the spirit of 'De Spadanis', Van Helmont elaborates on his belief in the existence of only two elements, air and water. As before, Van Helmont seeks further support in the Bible, this time quoting from Ecclesiastes chap. 1 and 2, and from Kings to substantiate his statements.³⁵⁷ Later on, Van Helmont employs Genesis to counteract Aristotle's idea of wind as a dry cold exhalation, and instead affirms it is air moved by divine will.³⁵⁸ Here the wind is treated in Hippocratic manner as a substitute for the *spiritus*, since Van Helmont affirms that the wind excites matter and quotes from Hippocrates's treatise 'On Winds' (*Peri Physon*) in support of this notion.³⁵⁹

The *Speculum* resembles *Ortus* in its scarcity of modern references, although Van Helmont does mention a few sources that will not be mentioned in the latter work, such as Giovanni Battista della Porta and Georgius Agricola (1494-1555).³⁶⁰

³⁴⁹ Corneille Broeckx, 'Commentaire de J.B. Van Helmont, Seigneur de Merode, Royenborch, Oirschot, Pellines etc sur un livre d'Hippocrate, intitulé Peri Trophis', *Annales de l'Académie d'archéologie de Belgique*, 8 (1851), 399-433 (p. 409); MS 'Causa J.B. Helmontii medici', II, 'Castigatio cuiusdam medici pro tutela libri Peri Physon', fol. 177^v.

³⁵⁰ Broeckx, *Peri Diatiz*, pp. 23-24; 'Peri Trophis', p. 406.

³⁵¹ MS 'Causa J.B. Helmontii', 'Peri Physon', fol. 177^v.

³⁵² Broeckx, *Peri Diatiz*, p. 24.

³⁵³ Broeckx, *Peri Diatiz*, p. 31.

³⁵⁴ MS 'Causa J.B. Helmontii medici', II, *Speculum philosophicoiatron*, fol. 208^r.

³⁵⁵ MS 'Causa J.B. Helmontii medici', II, *Speculum*, fol. 208^v. Van Helmont repeats the idea of creation *ex nihilo* three times on the same page.

³⁵⁶ MS 'Causa J.B. Helmontii medici', II, *Speculum*, fol. 209^r.

³⁵⁷ MS 'Causa J.B. Helmontii medici', II, *Speculum*, fol. 248^r, 248^v.

³⁵⁸ MS 'Causa J.B. Helmontii medici', II, *Speculum*, fol. 247^r.

³⁵⁹ MS 'Causa J.B. Helmontii medici', II, *Speculum*, fol. 246^v; 247^r.

³⁶⁰ MS 'Causa J.B. Helmontii medici', II, *Speculum*, fol. 245^r, 256^v.

Interestingly, I have found no mention of Paracelsus in the more decipherable parts of the *Speculum* (the *Speculum* is written in different hands, some of which are clearly those of an amanuensis, while some are Van Helmont's drafts; Van Helmont's writing varied from rather clear and organised to scribbling in some parts). It is clear that at this point Van Helmont seems more interested in grounding his philosophy on the Bible on one hand and on the *prisca sapientia*, particularly Hippocrates, on the other.³⁶¹

By comparison with these writings, Van Helmont is much more willing to disclose sources in his letters to Mersenne, which are an inestimable source of knowledge in this respect. In them, he expresses his generally negative opinion of Jacques Gaffarel,³⁶² Du Chesne's experiments³⁶³ and Robert Fludd.³⁶⁴ He expresses an ambiguous opinion of Andreas Libavius (1555-1616); on one hand, he praises the former's defence of alchemy, while at the same time rejecting his disparaging judgment of Paracelsus.³⁶⁵

During the period of the correspondence (1630-1631), Van Helmont shows himself to be a loyal supporter of Paracelsus, whom he constantly quotes and references. His praise of the Swiss is particularly strong in the letter to Mersenne of 19 December 1630; Van Helmont complains to Mersenne that the criticism of Paracelsus by Thomas Erastus (1524-1583) and Libavius was undeserved, and that their common friend Pierre Gassendi had judged Paracelsus only through the lens of his calumniators and weak philosophers like Rudolph Goclenius.³⁶⁶

Like the *Speculum*, the Mersenne letters convey Van Helmont's concern for grounding his thought in the Bible. For instance, he criticises Gaffarel for his theories about the cherubs and for his apparent rejection of the account of Kings on Ezekiel.³⁶⁷ As in 'De Spadanis', he upholds his cherished two-element theory based on his reading of Genesis.³⁶⁸ Prompted by Mersenne, he does not hold back from giving his opinion on such theological matters as the issue of universal salvation, *apokatastasis* (which he rejects),³⁶⁹ and on mystical ideas such as the Eckhart-Tauler theory of the ground of the soul, and the mystical transformation of the mind into God.³⁷⁰ In fact, Van Helmont exposes to Mersenne in a few pages his entire Christian anthropology and mystical

³⁶¹ On Van Helmont's belief in a *prisca sapientia*, see below, chapter 3.

³⁶² 'Jean Baptiste Van Helmont, à Bruxelles à Mersenne, (en voyage?), 26 Septembre 1630', II, 530-539.

³⁶³ '26 Septembre 1630', II, 532.

³⁶⁴ 'Jean Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris, 19 Décembre 1630', II, 585.

³⁶⁵ '19 Décembre 1630', II, 584-585.

³⁶⁶ '19 Décembre 1630', II, 584.

³⁶⁷ '26 Septembre 1630', II, 531-532.

³⁶⁸ 'Jean Baptiste Van Helmont à Bruxelles, à Mersenne, à Paris, 15 Janvier 1631', III, 32.

³⁶⁹ 'Jean Baptiste Van Helmont à Bruxelles, à Mersenne, à Paris, 14 Février 1631', III, 97.

³⁷⁰ '14 Février 1631', III, 98; 99.

perspective.³⁷¹ These letters indeed show that Van Helmont's Christian Philosophy was already largely formed at this point, if not yet articulated in a comprehensive manner.

2.2.2.2.3. *The Late Period: Opuscula medica inaudita and Ortus medicinae (1634-1644)*

As already shown in his biography, Van Helmont was under house arrest from 1634 to 1637, a period marked by the tragic loss of his two sons. This was a period of deep introspection, when it is not clear to what extent Van Helmont was able to write. In any case, by 1642, when he published the *Opuscula medica inaudita*, he had experienced a 'vision' that estranged him from Paracelsus. The *Opuscula* and the *Ortus*, written to some extent in parallel, are the final form of his 'Christian Philosophy', whose ideas are investigated in chapter 4.

2.2.2.3. *Some Problems of the Ortus Medicinae*

2.2.2.3.1. *Problems of Structure and Necessary Assumptions*

Despite its unitary publication, *Ortus medicinae* must be understood as a compilation. Consequently, any analysis of the structure of the *Ortus* must include a consideration of the role and intentions of the editor, Van Helmont's son Francis Mercury. Francis pointed out in his introduction that the papers were given to him to publish by Van Helmont when the latter felt death was unavoidable. According to Francis Mercury,

A few days preceding his Death, he said unto me; *Take all my Writtings, as well those crude and uncorrected, as those that are thorowly expurged, and joyn them together; I now commit them to thy care, accomplish and digest all things according to thy own judgement: It hath so pleased the Lord Almighty, who attempts all things powerfully and directs all things sweetly.*³⁷²

Francis Mercury accompanies this with an apology that he included both the 'digested' and the 'crude' writings printed. The implication of his statements is he did not intervene in the text at all. However, the confession leaves many questions unanswered. What precisely are the 'crude', uncorrected writings? How were these writings combined together? Why did Francis Mercury feel he had to include old, already published treatises like *De magnetica* and 'De Spadanis' in the body of the *Ortus*? Why

³⁷¹ '14 Février 1631', III, 96-106.

³⁷² Francis Mercury Van Helmont, 'To the Friendly Reader', p. [2].

are there two versions of the same treatise, one called 'Imago mentis' and the other 'Imago Dei' within the same book? How much of the *Ortus* represents Van Helmont's intention of a magnum opus and how much of the manuscripts were meant to be published separately? When were these writings, particularly the possible separate ones, authored? In what order were the treatises printed: in order of importance, chronology, or position in the collected manuscripts?

Unfortunately, unless the manuscripts of the *Ortus* are found, many of these questions cannot be answered with absolute certainty. Nevertheless, there are some clues both in the *Ortus* and the *Opuscula medica inaudita* that raise interesting avenues of research, beyond the scope of this dissertation. We know from Van Helmont himself that he was indeed working on a 'volume' or 'tome' called *Ortus medicinae*.³⁷³ The fact that a reference to the projected volume occurs in chapter 105 'The Vital Air' ('Aura vitalis') of the published *Ortus* indicates that this chapter at least was not meant to belong in the *Ortus* itself. Even more tantalisingly, 'A Treatise on Disease of the Stone' ('Tractatus de Lithiasi') from the *Opuscula* and several other treatises in the *Ortus* contain mentions of a 'Book of Long Life' ('Liber de vita longa').³⁷⁴ The use of the word 'book' rather than 'treatise' (*tractatus*) suggests that this was probably due to be published apart from the *Ortus medicinae*. Felicitously, this 'Liber de vita longa' can be identified, in part or in whole, within the *Ortus medicinae* itself: in my preliminary analysis I have determined that the 'Book' begins with the Preface ('Prefatio') on page 632 (500 in the *Ortus*) and covers the chapters 'De Tempore', 'Mortis introitus in naturam humana decus virginum', 'Thesis', 'Demonstratur thesis', 'Intellectus Adamicus', 'Vita', 'Vita Brevis' and 'Vita aeterna', 'Arcana Paracelsi', 'Mons Domini' and 'Arbor Vitae' and maybe others as well.³⁷⁵

Pending an in-depth analysis of the structure of the *Ortus*, I had to adopt a number of assumptions in my analysis: first of all, except for *De magnetica* and 'De

³⁷³ Van Helmont, chap. 105, 'The Vital Air', p. 731; 'Aura vitalis', p. 576: '...ac lectorem alio remittam ad volume de ortu medicinae'; *Opuscula medica inaudita*, 'To the Medicine-Loving Reader', [no pages given, 815-827], 'Philatro lectori', p. 645: 'Ideoque in plena persecutionum tempestate, volume conscripsi, cujus titulus, Ortus Medicinae. Id est, initia Physica inaudita. In quo detexi errores Scholarum, medendo solitos.'

³⁷⁴ See, for instance, *Opuscula medica inaudita*, 'A Treatise on the Disease of the Stone', chap. 9, 'Sensation or feeling, unsensibleness, pain, lack of pain, motion, and unmoveableness, through diseases of their own rank, the Leprosie, Falling-evil, Apoplexy, Palsey, Convulsion, Coma or Sleeping-evil, &c', pp. 901, 902, 909, 'Tractatus de Lithiasi', chap. 9, 'Sensatio, insensibilitas, dolor, indolentia, motus & immobilitas per morbos suae clasis, Leporam, Caducum, Apoplexiam, Paralysin, Spasmodum, Coma, &c', pp. 715, 721; chap. 45, 'The Distinction of the Mind from the Sensitive Soul', p. 344; 'Distinctio mentis ab sensitiva anima', p. 279: 'In primis Libro de vita longa, ad longum demonstravi, mortis introitum in naturam humanam...'; chap. 47, 'The Knitting or Conjoining of the Mind', p. 352; 'Nexus sensitivae et mentis', p. 285: 'prout de vita longa, tractatu de introitu mortis in naturam humanam probavi' and others.

³⁷⁵ I hope to be able to work on an article that would elucidate the content of this 'Book of Long Life'.

Spadanis', the treatises were composed in the 'late' period of Van Helmont's life (e.g. after his arrest in 1634).³⁷⁶ Secondly, the *Ortus* is a heterogeneous product which contains not only subject divisions that are only vaguely reflected in the finished product, but also stand-alone treatises, such as 'Liber de vita longa'. As they were printed 'in bulk', logical divisions of subject matter were ignored, with the result that some treatises are called 'Preface' without having a clear governing title. Thirdly, a rather unexpected death robbed Van Helmont of the opportunity to set order in the works, with the important result that one cannot make the assumption that the treatises toward the end of the book were less important than the ones at the beginning. Fourthly, the rather strange intercalation of *De magnetica* and 'De Spadanis' in the 'late' text suggest that Francis Mercury did not have a clear view of what papers belonged where. If the manuscripts in Mechelen are anything to go by, Van Helmont may have written and even dictated different treatises that appear on separate sheets of paper that were not numbered. In this case, confusion could easily ensue. Finally, Van Helmont probably did not have the chance to transcribe all of his ideas on paper, even though the vision that emerges is relatively coherent.

These are, of course, preliminary remarks that point to the need for a close analysis of the *Ortus* in terms of structure and flow of ideas. However, the essential point of these remarks is that, although most of Van Helmont's ideas are clearly articulated, his 'Christian Philosophy' remained in a project stage due to his death, and as such a re-construction must be attempted in order to understand it. The labour may sometimes be compared to repairing a broken puzzle: the pieces that comprise it can be anywhere on the floor, but with tenacity the puzzle can be completed in its entirety, or close to it.

2.2.2.3.2. The Problem of Van Helmont's Sources in *Ortus Medicinae*

Van Helmont's magnum opus *Ortus medicinae* is notoriously sparse in citations, particularly modern ones. The most revealing part is Van Helmont's autobiography in chap. 2, 'The Author's Studies' ('*Studia authoris*'), with the caveat that here he references authors mainly for the purpose of distancing himself from them. Thus, he mentions having read, from the ancients, Seneca, Epictetus, Dioscorides, Galen, Hippocrates, Aristotle, Euclid, Avicenna, and from the moderns, Thomas à Kempis

³⁷⁶ This is based on the assumption that all of Van Helmont's manuscripts were confiscated in 1634. However, we cannot be sure that Van Helmont did not save certain manuscripts in a location which was not raided, for instance in Vilvorde.

(c.1380-1471), Johann Tauler, Raymond Lull (1232/6-1315), Cornelius Gemma, Martin del Rio, Pietro Matthioli (1500-1577), Leonhard Fuchs (1501-1566) and Jean Fernel.³⁷⁷

Yet this wealth of names can be contrasted with the scarcity of references later in the text. Frequent mention is made of Aristotle and Galen, whose ideas are strongly rejected. Paracelsus is also criticised, although not as strongly as the two doctrinal arch-enemies of Van Helmont.³⁷⁸ Hippocrates and Plato are given better treatment,³⁷⁹ although Hippocrates is clearly preferred of the two.³⁸⁰ In fact, in the entire *Ortus* Hippocrates is only criticised once, and then very mildly.³⁸¹

Instead, Van Helmont clearly prefers to quote from the Bible, or orthodox religious figures. He is keen to draw on St Augustine,³⁸² Pseudo-Dionysius,³⁸³ St

³⁷⁷ Van Helmont, chap. 2, 'The Author's Studies', pp. 9-18; 'Studia authoris', pp. 11-21.

³⁷⁸ Van Helmont particularly refutes the doctrine of the *tria prima*, see chap. 11, 'The Essay of a Meteor', p. 69, 'Progymnasma meteoris', p. 59; chap. 29, 'The Image of the Ferment begets the Masse or Lump with Childe of a Seed', p. 113, 'Imago fermenti impraegnata massam semine', p. 93; chap. 55, 'That the three first Principles of the Chymists, nor the Essences of the same, are not of, or do not belong unto the Army of Diseases', pp. 402-403; 'Tria prima chymicorum principia, neque eorundem essentias de morborum exercitu esse', p. 333, 'vera, immediate, ipsissimaque essentia, a qua esse rerum defluit, & dependet, inseparabile in natura', p. 324. He also takes issue with Paracelsus's inconsistency, in chap. 18, 'The Fiction of Elementary Complexions and Mixtures', p. 105, 'Complexionum atque mistionum elementalium figmentum', p. 85; chap. 23, 'Nature is Ignorant of Contraries', p. 164, 'Natura contrariorum nescia', p. 134; chap. 28, 'A Six-Fold Digestion of Humane Nourishment', p. 221, 'Sextuplex digestio alimenti humani', pp. 178-179. On some occasions Van Helmont simply states that Paracelsus was wrong on certain explanations; see for instance, chap. 28, 'A Six-Fold Digestion of Humane Nourishment', p. 219, 'Sextuplex digestio alimenti humani', p. 174; chap. 90 'Life is Long, Art is Short', p. 646, 'Vita longa, ars brevis', p. 511; chap. 105, 'The Vital Air', p. 735, 'Aura vitalis', p. 578. In medicine Van Helmont particularly denies Paracelsus's doctrine of the tartar and knowledge of long life. Positive remarks on Paracelsus can be found, for instance, in chap. 60, 'The Power of Medicines', p. 471, 'Potestas medicaminum', p. 377. Van Helmont is particularly keen on uncovering the alchemical secrets of Paracelsus, see chap. 79 'Butler', p. 586, 'Butler', p. 466. Despite his general criticism of Paracelsus, Van Helmont once calls him a 'good man': chap. 105, 'The Vital Air', p. 735, 'Aura vitalis', p. 578.

³⁷⁹ Plato is quoted positively on a few occasions, e.g. chap. 21 'The Birth or Originall of Forms', p. 133, 'Ortus formarum', chap. 24, 'The Blas of Man', p. 186, 'Blas humanum'; chap. 35, 'The Image of the Mind', pp. 263, 268, 'Imago mentis', p. 213.

³⁸⁰ Van Helmont, chap. 14 'The Blas of Meteours', pp. 78, 'Blas meteoron', p. 64; chap. 23 'Nature is Ignorant of Contraries', p. 163, 'Natura contrariorum nescia', p. 133; chap. 42, 'An Unknown Action of Government', p. 334, 'Ignota actio regiminis', p. 271; chap. 47, 'The Toyes or Dotages of a Catarrhe or Rheume', p. 430, 'Catarrhi deliramenta', p. 346; chap. 58, 'A Reason or Consideration of Food or Diet', p. 451, 'Victus ratio', p. 263; chap. 62, 'A Disease is an Unknown Guest', pp. 494, 504, 'Ignotus hospes morbus', pp. 396, 404; chap. 65, 'The Author Answers', p. 524, 'Respondet Author', p. 419; chap. 69, 'Of the Ideas of Diseases', p. 548, 'De Ideis morbosus', p. 435.

³⁸¹ Van Helmont, chap. 56, 'Of Flatules or Windie Blasts in the Body', p. 417, 'De flatibus', p. 336.

³⁸² Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 132, 'Ortus formarum', p. 107; chap. 45, 'The Distinction of the Mind from the Sensitive Soul', p. 345, 'Distinctio mentis ab sensitiva anima', p. 280; chap. 46, 'Of the Immortality of our Soul', p. 350, 'De animae nostrae immortalitate', p. 284; chap. 89, 'Of Time', p. 636, 'De Tempore', p. 504; chap. 93, 'The Position is Demonstrated', pp. 676, 679, 'Demonstratur thesis', p. 538.

³⁸³ Van Helmont, chap. 20, 'The Stars Do Necessitate, Not Incline, not incline, nor signifie of the life, the body, or fortunes of him that is born', p. 120, 'Astra necessitant, non inclinant, nec significant de vita, corpore, vel fortunis nati', p. 97; chap. 40, 'The Compleating or Perfecting of the Mind', p. 314, 'Mentis complementum', p. 254.

Hildegard of Bingen (1098-1179),³⁸⁴ and his near-contemporary St Teresa of Avila (1515-1582).³⁸⁵ He also quotes St Thomas Aquinas on substantial forms, but generally his expressed view of him is rather negative due to what he perceived as the former's over-reliance on Aristotle.³⁸⁶ His references to the Bible are numerous and range from the Old Testament (Genesis, Ecclesiasticus, Ecclesiastes, Psalms, Kings, Leviticus) to the New Testament, where his favourite quotations come from St John and St Paul.

Despite such conservative citations, there are some references to writers relatively contemporary to Van Helmont. He mentioned several Paracelsians, such as Joseph Du Chesne,³⁸⁷ Bartholomeus Carrichter (c 1510-1567),³⁸⁸ Leonhard Thurnheysser (1531-1595/6),³⁸⁹ as well as a few Renaissance authorities like Pico della Mirandola,³⁹⁰ Jean Fernel,³⁹¹ Pietro Matthioli³⁹² and Martin del Rio.³⁹³ Again, the judgment on most of these is rather reserved, if not dismissive. In fact, there is no mention of a positive influence on his writings from any recent authors, either fellow alchemists or otherwise.

This state of affairs obliges the scholar firstly to face the possibility that Van Helmont's *Ortus medicinae* was indeed little influenced by contemporary sources. Nevertheless, this is hardly credible, since the existing references and his biography demonstrate that he was actively involved in the Paracelsian debates of his period and also read widely.³⁹⁴ Moreover, his story of the Irishman Butler and of an anonymous itinerant alchemist does admit of contact with other contemporary philosophers and

³⁸⁴ Van Helmont, chap. 40, 'The Completing or Perfecting of the Mind', p. 314, 'Mentis complementum', p. 254; chap. 60, 'The Power of Medicines', p. 470, 'Potestas medicaminum', p. 376; chap. 93, 'The Position is Demonstrated', pp. 686-687, 'Demonstratur thesis', pp. 534-535.

³⁸⁵ Van Helmont, chap. 59, 'A Modern Pharmacopolion and Dispensatory', p. 459, 'Pharmacopolion ac Dispensatorium modernorum', p. 369.

³⁸⁶ Van Helmont, chap. 21, 'The Birth or Originall of Forms', pp. 131, 135, 'Ortus formarum', p. 110.

³⁸⁷ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 147, 'Ortus formarum', p. 120; chap. 59, 'A Modern Pharmacopolion and Dispensatory', p. 459, 'Pharmacopolion ac Dispensatorium modernorum', p. 368.

³⁸⁸ Van Helmont, chap. 76, 'Things Received which are Injected or Cast In', p. 569, 'Recepta injecta', p. 453; chap. 81, 'The Manner of Enterance, of Things Darted into the Body', p. 605, 'Injaculatorum modus intrandi', p. 481.

³⁸⁹ Van Helmont, *Opuscula medicina inaudita*, 'A Treatise of the Disease of the Stone', chap. 3, 'The Content of Urine', p. 843, 'Tractatus de Lithiasi', chap. 3, 'Contentum urinae', p. 671. The judgment of Thurnheysser's ideas on urine is negative.

³⁹⁰ Van Helmont, chap. 79, 'Butler', p. 593, 'Butler', p. 472.

³⁹¹ Van Helmont, chap. 80, 'Of Material Things Injected or Cast into the Body', p. 599, 'De injectis materialibus', p. 476; chap. 85, 'Of Things Inspired or Breathed into the Body', p. 618, 'De inspiratis', p. 490.

³⁹² Van Helmont, chap. 81, 'The Manner of Enterance, of Things Darted into the Body', p. 605, 'Injaculatorum modum intrandi', p. 481. He criticises Pietro Matthioli for having been concerned only with the surface of the herbs.

³⁹³ Van Helmont, chap. 80, 'Of Material Things Injected or Cast into the Body', p. 598, 'De injectis materialibus', p. 475. His judgment of Del Rio is predictably negative.

³⁹⁴ See above, chap. 2.2. 'Van Helmont's Life'.

willingness to understand their experience, rather than rejecting them outright. In addition, there are some more abstruse clues to contemporary alchemical influence, such as his reiteration of the position of Michael Sendivogius (1566-1636) regarding the spirit being the 8,200th part of the seed.³⁹⁵ Finally, many of his themes and ideas bear similarities to other works of his era, and demand further research not only into Van Helmont's previous writings but beyond them as well.

2.3. Conclusions

This chapter has attempted to show that Van Helmont's speculations, far from being ahistorical, were rooted in the problems and environment of his age. The complexity of the period reveals as many facets of Van Helmont's intellectual persona. On one hand, he was a member of the landed gentry of the Southern Netherlands, in a tumultuous period when the future state of Belgium was only beginning to take shape, based not on a national identity but on a religious one. As such, he was a staunch supporter of the Catholic faith; at the same time, he was lukewarm to the influence of the official Spanish and Roman Catholic policies, such as the support given to the Jesuits. Like many of his intellectual contemporaries in Belgium, he leaned toward Augustinian and Patristic thought rather than Scholasticism, a religious tendency that coloured his worldview significantly.

At the same time, we will find that Van Helmont was one of the more radical reformers of natural philosophy in the period. He was first of all a staunch anti-Aristotelian and anti-Scholastic, and secondly, a keen supporter of the alchemical philosophy as formulated by Paracelsus. This alchemical philosophy combined a Renaissance belief in the *prisca theologia* and natural magic with an alchemical worldview that emphasised transformation, all inscribed within a profound Christian perspective.

Another conclusion that can be drawn from the chapter is that the idea of Christian Philosophy was one that shaped most of Van Helmont's life, from the restrained attempts in *Eisagoge* to the full-blown philosophy of *De magnetica* and 'De

³⁹⁵ Van Helmont, chap. 18, 'The Fictions of Complexions and Mixtures', p. 106, 'Fictionum complexionum atque Mistionum', p. 86; chap. 70, 'Of Archeal Diseases', p. 550, 'De morbis Archealis', p. 436; *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 13, 'The Form and Matter of the Pest', p. 1125, 'Tumulus pestis', chap. 13, 'Forma atque materia Pestis', p. 865. Michael Sendivogius, 'Tractatus de Mercurio', in *Novum lumen chymicum*, pp. 9-109 (p. 21).

Spadanis'. Later Van Helmont transformed the Christian philosophy of *De magnetica* into the version he set down chiefly in *Ortus*. The tracing of ideas through time has hopefully dispelled the idea that his focus on Christianity and mysticism was the result of religious persecution, old age, or a late attempt at restoring his 'tarnished' name. Instead, Van Helmont appears as a man profoundly implicated in his project of Christian philosophy, which in turn could be traced back to the Paracelsians and further to the medieval alchemists.

The next chapter narrows down the general and often diffuse influences on Van Helmont to focus on the immediate ones that this study argues were a key source of his project of 'Christian Philosophy'. As shown in the 'Scholarship' chapter, scholars have identified the close kinship between Van Helmont's speculation and that of the Paracelsian movement. This chapter will build upon this finding by looking in detail at a range of alchemical philosophers who influenced Van Helmont's work. The purpose will be to determine how the ideas of Van Helmont's alchemical precursors influenced his project of merging Christian thought and alchemical philosophy. In this sense, the study will look not only at Paracelsians and contemporary alchemists per se, but will attempt to review a long-standing tradition that regarded alchemy as a religious philosophy, a tradition which I have referred to as 'Christian Alchemy'.

Chapter 3: The Christian Alchemical Influences on J.B. Van Helmont's 'Christian Philosophy'

As we have already discovered in the previous chapter, the later Van Helmont endeavoured to show that his entire worldview had orthodox Christian thought at its source, complemented by a natural philosophy directly inspired by God. Since Van Helmont believed that all forms of knowledge were ultimately dependent on God's revelation through the Holy Spirit, they could be reconcilable in one Christian philosophy.

Such claim of divine inspiration apparently led the later Van Helmont to reject his association with Paracelsus, whom everyone at the time would have deemed his master.¹ Indeed, in *Ortus medicinae* he pointed out that his overly appreciative view of Paracelsus had been corrected through the light of the Holy Spirit. As he affirms,

I searched into the Books of *Paracelsus*, filled in all parts with a mocking obscurity or difficulty, and I admired that man, and too much honoured him: till at length, understanding [*Intellectus*] was given, of his Works, and Errours.²

Despite Van Helmont distancing himself from Paracelsus in *Ortus medicinae*, this chapter will attempt to show that Van Helmont's lifelong project of a Christian philosophy was deeply rooted in a Paracelsian movement that was eager to affirm its religious orthodoxy and root itself in the Bible. The outline of this Christian Paracelsianism was drawn mainly from Paracelsus himself, and developed further in the writings of Petrus Severinus, Oswald Croll, Joseph Du Chesne and others. At its root stood the theory of a sacred wisdom tradition, a *prisca sapientia* that included Moses, Hermes Trismegistus and Hippocrates and had been transmitted to the medieval alchemists before reaching Paracelsus and his followers. This idea set numerous Paracelsian alchemists—Van Helmont included—in search of the source of the true wisdom, which they often thought to have found in the writings of such medieval alchemists as Raymond Lull or Petrus Bonus of Ferrara. Ironically, this search resulted

¹ As seen in section 2.2.2.2, young and mature Van Helmont made no secret of his high regard for Paracelsus.

² Van Helmont, 'The Author Promises', p. 7, 'Promissa authoris', p. 11: 'Libros Paracelsi derisa obscuritate obsitos, investigavi, illumque hominem admiratus sum, & nimio honore prosecutes: Donec tandem daretur Intellectus operum & errorum suorum'.

in some of these Paracelsians distancing themselves from their own fountainhead of inspiration, Paracelsus, as they sought earlier sources of ancient wisdom.

This chapter first discusses Van Helmont's ideas regarding *prisca sapientia*, including his views on the alchemical adepts and the Hermetic school. These concepts are then traced back to Paracelsus, particularly his *Astronomia magna*, before considering the moderating influence of several Paracelsians such as Severinus, Croll and Du Chesne on his ideas. Finally, the influence of medieval Christian alchemy will be considered in the framework of the Helmontian idea of *prisca sapientia*.

3.1. *Prisca Sapientia: the 'Hermetic School', the 'Adepts' and the 'Cabala'*

Van Helmont's thought was shaped by his belief in an ancient wisdom, a natural philosophy of alchemical form that was compatible with the Bible and Christianity. This was a *prisca sapientia* (ancient wisdom) that focussed particularly on alchemy and medicine.³ It was a wisdom that he worked hard to uncover throughout his life and which he thought he had achieved in his older age.

The early and middle Van Helmont believed that he belonged to a select class of alchemical philosophers, first mentioned in his youthful *Eisagoge*.⁴ Here, Hermes Trismegistus is portrayed as the originator of all true medicine and the leader of the Hermetic school.⁵ In fact, Van Helmont is eager to quote from the *Poimandres* rather than from Plato when he talks about the mind as archetype.⁶

This belief in the 'Hermetic school' continued through Van Helmont's mature years. In 'De Spadanis', he refers to the concordance between the School of Hermes and the Pythagorean philosophy.⁷ In *De magnetica* and 'Ad Judicem', Van Helmont often discourses in the plural, suggesting he is backed in his affirmations by the entire Hermetic School.⁸ In fact, he even sets out to describe what he calls the fundamental 'Theorem of the Hermetic School' (*Scholae Hermeticae Theoremata*), which states that

³ On the *prisca theologia* as formulated by Ficino and developed in the Renaissance see the sub-chapter above under 2.1 The Intellectual Landscape of Van Helmont's time. For the medical side of this view, see also Hiro Hirai, "'Prisca Theologia'" and Neoplatonic Reading of Hippocrates in Fernel, Cardano and Gemma', in *Cornelius Gemma: Cosmology, Medicine and Natural Philosophy in Renaissance Louvain* (Rome: Serra, 2008), pp. 91-104 (pp. 91-95).

⁴ Broeckx, 'Le premier ouvrage', I, 360.

⁵ Broeckx, 'Le premier ouvrage', I, 358.

⁶ Broeckx, 'Le premier ouvrage', II, 176.

⁷ Van Helmont, ('De Spadanis fontibus'), chap. 100, 'A Paradox of Supplies', p. 710; 'Supplementorum Paradoxum numero criticum', p. 560.

⁸ Broeckx, 'Van Helmont: Ad Judicem', pp. 85, 108.

no axiom of physics will be admitted unless proven by the fire.⁹ This pattern of self-representation is present in his letters to Mersenne, where Van Helmont talks in plural about ‘our principles’ or ‘our school’.¹⁰

However, the later Van Helmont seems to have distanced himself from the idea of belonging to the Hermetic school. Although the praise of alchemy continues in the *Opuscula medica inaudita* (‘Treatise on the Disease of the Stone’), where Van Helmont affirms that ‘Alchymie alone is the Glass of true understanding’ and cites from the *Tabula smaragdina* of Hermes Trismegistus, he does not claim to be part of a certain school.¹¹ The *Ortus medicinae* never brings up the subject either. This fact can undoubtedly be connected with the claim of originality that the later Van Helmont made; he was no longer willing to be considered as one of the many alchemists of his age.

Instead of the concept of a ‘Hermetic School’, the later Van Helmont emphasised the idea of the ‘Adepts’. Van Helmont’s term ‘Adept’ originates from Paracelsus’s *Astronomia magna*, in which the Swiss physician mentioned the Adept Philosophy (*philosophia adepta*), Medicine (*medicina adepta*) and Mathematics (*mathematica adepta*).¹² These are presented as three of the nine members of celestial astronomy.¹³

It seems that the use of the term ‘adept’ in association with alchemy effectively originated with Paracelsus. Prior to Paracelsus, the term ‘adept’ was used as an adjective with the common Latin meaning of ‘attained’ or ‘perfected’. In the Middle Ages, the Arab philosopher Al Farabi (c.870-950) drew upon Aristotle’s *De anima* to formulate the doctrine of the ‘intellectus adeptus’ or the ‘perfected intellect’.¹⁴ This concept was adopted by Albertus Magnus in the Latin West, and it is perhaps through this lineage that Paracelsus inherited the term.

⁹ Broeckx, ‘Van Helmont: Ad Judicem’, pp. 105-106.

¹⁰ ‘Jean Baptiste Van Helmont, à Bruxelles, à Mersenne à Paris, 30 Janvier 1631’, III, 63; ‘Jean Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris, 21 Février 1631’, III, 111.

¹¹ Van Helmont, *Opuscula medica inaudita*, ‘A Treatise on the Disease of the Stone’, chap. 3, ‘The Content of Urine’, p. 840; ‘Tractatus de Lithiasi’, chap. 3, ‘Contentum urinae’, p. 668: ‘Spagyria enim sola, est speculum veri Intellectus’.

¹² Theophrastus Paracelsus, ‘Astronomia magna sive Tota philosophia sagax, Maioris et Minoris Mundi’, in *Operum medico-chimicorum sive paradoxorum*, 12 vols (Frankfurt: Collegio Musarum Palthenianarum, 1605), X, 91-364 (pp. 205-217).

¹³ Paracelsus, ‘Astronomia magna sive Tota philosophia sagax’, X, 205-217. For more on this text, see below under the subchapter on Paracelsus.

¹⁴ Günter Frank, ‘Melanchthon’s Concept of Practical Philosophy’, in *Moral Philosophy on the Threshold of Modernity*, ed. by Jill Kraye and Risto Saarinen (Dordrecht: Springer, 2005), pp.217-235 (pp. 226-228); more generally on the idea of acquired intellect in the works of the Arab philosophers, see Herbert A. Davidson, *Alfarabi, Avicenna and Averroes on Intellect* (Oxford: Oxford University Press, 1992), pp. 49-70, 85-104, 332.

By the term ‘*philosophia adepta*’, Paracelsus may have meant nothing more than a perfected knowledge of philosophy, yet this has to be understood in the context of his idiosyncratic view that superior knowledge originated from the stars. Moreover, he also referred to the ‘*Philosophus Adeptus*’ as a heavenly spirit which lies within us. As he puts it:

Now it is necessary that we know what the Philosophical Adept is so that we can learn from him. It is known that he is intangible, invisible, immune and is yet with us and lives with[in] us, in all forms. As Christ says ‘I am with you to the end of the world’ but no one sees him, no one grasps him yet he is still with us, so too is the Philosophical Adept with[in] us.¹⁵

Hence it is this divine spirit of the heavens that teaches the magus the secrets of philosophy; perhaps it is even the *Evestrum* Van Helmont referred to above; supposedly one can become an adept by mastering this spirit.

The followers of Paracelsus adopted and expanded on the concept of the ‘adept philosophy’. In 1570 or 1571, Petrus Severinus published *Epistola scripta Theophrasto Paracelso*, which purported to summarise the method of ‘Adept Philosophy’.¹⁶ Severinus also mentioned ‘Adept Philosophy’ in his magnum opus *Idea medicinae* (1571), where he referred once to it as the source of knowledge of nature.¹⁷

By comparison to Severinus’s rather subdued references to the concept, Croll talked at length of the ‘Adept Philosophers’ and ‘Adept Philosophy’ in his *Basilica chymica*.¹⁸ Although Croll did not exactly explain his meaning of the term, he gave ‘consummatus’ (‘complete’ or ‘perfect’) as a synonym for ‘adeptus’.¹⁹ The perfect philosophers, he further points out, are those ‘occult Secretaries’ who have investigated the secrets of the world in the Light of Nature.²⁰

It was probably through Croll and his own reading of the *Astronomia magna* that Van Helmont adopted the concept of the ‘Adepts’. However, as we shall see, the meaning of the term varied to some extent over time. The prologue to the *Eisagoge*

¹⁵ Paracelsus, ‘*Astronomia magna sive Tota philosophia sagax*’, X, 173.

¹⁶ Petrus Severinus, *Epistola scripta Theophrasto Paracelso* (Basel: Henric Petri, 1570/1), p. [4] (the *Epistola* does not contain page numbers). It is not clear whether this short work was published before or at the same time as *Idea medicinae*; Jole Shackleford argues that it was most likely before; Shackleford, *A Philosophical Path for Paracelsian Medicine: The Ideas, Intellectual Context, and Influence of Petrus Severinus, 1540-1602* (Copenhagen: Museum Tusculanum Press, 2004), p. 55 n.10.

¹⁷ Severinus, *Idea medicinae philosophicae*, p. 80.

¹⁸ Oswald Croll, ‘The Admonitory Preface of Oswald Crollie, Physitian: to the Most Illustrious Prince Christian Anhaltin, in *Philosophy Reformed & Improved in Four Profound Tractates*, trans. by H. Pinnell (London: Lodowick Lloyd, 1657), pp. 1-226 (pp. 91, 96).

¹⁹ Croll, ‘Admonitory Preface’, p. 190.

²⁰ Croll, ‘Admonitory Preface’, p. 96.

suggests that Hermes Trismegistus could be seen not only as the founder of the Hermetic school, but also the chief of the ‘Adept’ philosophers. This does not mean that all alchemists can be described as ‘Adepts’; in fact, Van Helmont’s dream-vision features a select group of ‘chosen’ natural philosophers that had achieved a certain level of divine knowledge and sanctity. It is implied that becoming an ‘Adept’ is a long-term ideal to be pursued, rather than a simple adhesion to a certain doctrine or practice like that of alchemy. This perspective indeed justifies Van Helmont’s modesty when Mersenne addresses him with the title ‘Adept’: ‘Please do not give me the title of Adept, because I do not deserve it.’²¹ The ideal of becoming an ‘Adept’ is further described in the later Van Helmont’s autobiography from *Ortus medicinae*, where he recalls how in his youth ‘I myself being fraught with hope, perswaded myself, that by the meer free gift of God, I should at sometime obtain the Science of the Adeptist.’²²

Given this ideal, one may rightfully wonder if the later Van Helmont thought he had finally attained the title of ‘Adept’. It seems that he did, since he claims to know the secrets of *arcana* such as Paracelsus’s Elixir of Propriety, Butler’s *Drif* and the ‘Tree of Life’, all three of which are described as part of the Adepts’ knowledge.²³ Even further, Van Helmont admits on another occasion that ‘I am esteemed an Adeptist, the Obtainer of some Secrets.’²⁴ Although he never assumes the title directly, the late Van Helmont seems content to leave the readers to believe that he had eventually become an ‘Adept’. One may even speculate that the entire *Ortus medicinae* is Van Helmont’s attempt to justify his election to this higher ‘Adept’ status.

What is clear is that membership of Van Helmont’s select ‘Adept’ group is limited. Indeed, as he states, the number of Adepts ‘is choice and most rare, so also it is altogether small’.²⁵ In *Eisagoge*, Hermes is shown to be the chief Adept, and Paracelsus also belongs to the class. In the *Ortus*, Paracelsus is no longer treated with the reverence of the *Eisagoge*, but Van Helmont apparently still admits that he was an ‘Adept’: referring to the ‘Elixir of propriety’ of Paracelsus he says that whoever obtains it also earns the title of Adept.²⁶ Apart from Paracelsus and Hermes, Van Helmont seems to include Michael Sendivogius amongst the Adepts, since in a letter to Mersenne he

²¹ ‘Jean Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris, 14 Février 1631’, p. 108.

²² Van Helmont, ‘The Author Promises’, 7, ‘Promissa authoris’, p. 11.

²³ Van Helmont, chap. 79, ‘Butler’, p. 594. ‘Butler’, p. 474.

²⁴ Van Helmont, chap. 88, ‘A Preface’, p. 632, ‘Praefatio’, p. 700.

²⁵ Van Helmont, chap. 79, ‘Butler’, p. 595, ‘Butler’, p. 475.

²⁶ Van Helmont, chap. 78, ‘Some More Imperfect Works’, p. 574; ‘Haec quae sequuntur, reliquit autor imperfectiora, indigestiora, et incorrectiora praecedentibus’, pp. 457-458: ‘Sic enim Elixir proprietatis apud Parac. curat Asthma, Epil, Apop. Paralysim, Atrophiam, Tabem, & c. At quia non paratur istud Elixir, nisi a peritissimo Philosopho: qui non putando, sed sciendo perfecte, atque adhuc dupliciter ad hoc sit electus, adeoque Adepti titulum consecutus est.’

claims that ‘our Adepts’ say that the seed is the 820(0)th part of the grain, which in the *Ortus* he clarifies as being a statement by the Cosmopolite.²⁷ Finally, one can assume that the mysterious Butler was an ‘Adept’. We are left to wonder if he ever deemed his fellow Paracelsians Severinus, Croll or Du Chesne as part of this select group.

One may ask, given the exclusivity of the ‘Adepts’, what Van Helmont may have deemed to be true ‘Adept’ knowledge. For an understanding of this, the *Opuscula* and *Ortus* are of most help. Here Van Helmont talks about the ‘gift of healing’²⁸, the ‘Adept art of healing’ (*Adeptum medendi*), the ‘attainment of great secrets’ and the labour of wisdom (*labor sapientiae*).²⁹ The practice of the ‘Adepts’ is closely associated with alchemy, both *chrysopoetic* and *chemiatric*. Thus, in one place, he states:

Chymicall Adeptists do with one voice deliver, that if the seed of the Stone which maketh Gold, being once kept warm in their Egg, be afterwards in the least cooled or chilled, its conception and progress to a stone would be afterwards desperate.³⁰

Elsewhere he talks about the Liquor Alkahest as being part of the ‘Adept’ knowledge, as well as the secret of long life.³¹

These statements appear to suggest that ‘Adept’ knowledge is a science acquired in the laboratory, except that Van Helmont also refers to the Rabbis’ *binsica*, death by the kiss,³² as a concept that belongs to the Adepts.³³ Hence, Adept knowledge involves a type of mystical experience that Van Helmont, not surprisingly, associates with the Cabala. This idea shows a remarkable continuity with the concepts regarding Adept knowledge of his mature period. In *De magnetica*, middle Van Helmont had affirmed that

²⁷ ‘Jean Baptiste Van Helmont à Bruxelles, à Mersenne, à Paris, 26 Septembre 1630’, p. 532. The text reads ‘820a pars grani’ but this must be either Helmont’s mistake or that of the transcriber.

²⁸ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 13, ‘Studia authoris’, p. 16.

²⁹ Van Helmont, *Opuscula medica inaudita*, ‘To the Medicine-Loving Reader’, p. [815-826], ‘Philiatro lectori’, pp. 643, 644, 647, 648; chap. 2, ‘The Hunting or Searching out of the Sciences’, pp. 16, 22, ‘Venatio scientiarum’, pp. 17, 23.

³⁰ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 133, ‘Ortus formarum’, p. 108.

³¹ Van Helmont, chap. 42, ‘An Unknown Action of Government’, p. 328, ‘Ignota actio regiminis’, p.265; chap. 101, ‘Understanding of Adam’, p. 713, ‘Intellectus Adamicus’, p. 562; also *Opuscula medica inaudita*, ‘A Treatise on the Disease of the Stone’, chap 4, ‘A Processe of Duelech’, p. 852; chap. 8, ‘The Author Offers a Dainty Dish to Young Beginners’, p. 887; ‘Tractatus de Lithiasi’, chap. 4, ‘Processus Duelech’, p. 678, chap. 8, ‘Tyronibus ferculum offert Author’, p. 704.

³² For the origin of this word, please see the more expanded discussion in chapter 4.3 On Man.

³³ Van Helmont, chap. 3, ‘The Hunting or Searching out of the Sciences’, p. 24, ‘Venatio scientiarum’, p. 24.

Man himself is able through the Art of the Cabal to cause an excitement in himself, of so great a Power at his own Pleasure, and these are called Adeptists, or Obtainers, whose Governour also is the Spirit of God.³⁴

Van Helmont further describes this mysterious power of the 'Adept' to Mersenne in relation to his theory of the magical powers of the soul:

In truth, that power is the source and fundament of the natural magic and the Cabala (which in my opinion is not founded on the writing of the Hebrew alphabet, as the Jews want us to believe, but on the celestial magic or celestial astrology, which reads events into the stars, and that without any astrological computation, but in the manner known to Adepts), of which I touched on, with some decoy, in my little book *De Magnetismo*, but still too much for this ulcerous century to bear.³⁵

Thus Adept art is related to Cabala, but this is described as not the customary Jewish Cabala, but a different one, of a mystical, ecstatic type. It was not the first time that Van Helmont rejected the *gematria* and other alphabet techniques of traditional Jewish Kabbalah; in a different letter he praised Gassendi's rejection of the vanity of the 'alphabetic' Kabbalah,³⁶ while in an interrogatory at the Mechelen ecclesiastical court he maintains that the Jewish art of the Kabbalah is an inane fable.³⁷

This is contrasted with the true 'Cabala', which we learn is that given Moses on Mount Sinai.³⁸ This is in turn nothing else than

magical astronomy, which does not need observations or calculations, instruments etc, as it is learned from heaven itself and in few hours, being of great effect and a science that is different than the ones that you learn in books.³⁹

Therefore, Adepts are those rare 'men of good' who have acquired the true Cabala, of which Van Helmont confesses to have known a few.⁴⁰ They are the true

³⁴ Van Helmont, chap. 112, 'On the Magnetick Cure of Wounds', p. 784, 'De magnetica vulnerum curatione', p. 613: 'ipse homo sibi, per artem cabalae, excitamentum tantae potestatis, ad suum lubitum causare, vocantur hi adepti, quorum etiam rector spiritus Dei est.'

³⁵ 'Jean Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris, 26 Septembre 1630', II, 533; my translation.

³⁶ 'Jean Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris, 19 Décembre 1630', II, 585.

³⁷ Broeckx, 'Interrogatoires', p. 317.

³⁸ This was a common view of Christian Cabalists, see Webster, *Paracelsus: Medicine, Magic & Mission*, p. 158.

³⁹ '19 Décembre 1630', II, 585.

⁴⁰ '19 Décembre 1630', II, 585.

‘Prophets of nature’ (*Prophetas in natura*) who can read the signs of future things in the stars.⁴¹

Van Helmont’s notions of the Cabala as celestial or magical astronomy reflect his reading of Paracelsus’s *Astronomia magna*. However, in this work Cabala per se plays a rather minor role; the *ars cabbalistica* is described as being the magical ability of conveying messages over long distances, and is a sub-component of magic.⁴² Greater weight to Cabala is given in Paracelsus’s spurious *Liber Azoth*, which Van Helmont deemed to be authentic, where the anonymous author affirms that the fundament of philosophy is drawn out of ‘Angelical and Cabalistical knowledge (*scientia*)’.⁴³ Moreover, he states that ‘Cabala teaches us that God created man’, implying that the Bible contains and transmits Cabalistical knowledge.⁴⁴

As Webster has pointed out, Paracelsus viewed magic and Cabala as associated operations, reflecting the ideas of Pico della Mirandola and Johannes Reuchlin.⁴⁵ Emphasis on the Cabala increased, however, in the writings of the Paracelsians of the early seventeenth century.⁴⁶ The works of Oswald Croll and Heinrich Khunrath reveal a conscious effort to draw inspiration from Christian Cabalistical resources prior to Paracelsus. Both Khunrath and Croll praise Giovanni Pantheus’s *Voarchadumia*, which associated Cabala and alchemy.⁴⁷ Croll also makes a reference to the sephira Kether, conceived as the ‘Divine Nothing, or Invisible Cabalisticall Poynt’, and to Johannes Reuchlin’s speculation on the Divine Name YHSWH.⁴⁸

In turn, Van Helmont also looked at Christian Cabalistical sources for guidance on the Cabala; however, his understanding of it was mediated by Paracelsian sources. It is even possible that he initially drew the idea of the *binsica* from Oswald Croll, not from its originator, Pico. Moreover, Van Helmont’s dismissal of the ‘alphabetic’ Cabala

⁴¹ ‘19 Décembre 1630’, II, 586.

⁴² Paracelsus, ‘*Astronomia magna sive Tota philosophia sagax*’, X, 126.

⁴³ Paracelsus, ‘*Liber Azoth*’, in *Opera chemica et philosophica* (Geneva: Ioan Antonius & Samuel de Tournes, 1680), II, 675-694 (p. 680).

⁴⁴ Paracelsus, ‘*Liber Azoth*’, II, 689.

⁴⁵ Charles Webster, *Paracelsus: Medicine, Magic & Mission*, pp. 158-159. See also Moshe Idel, ‘The Magical and Neoplatonic Interpretations of the Kabbalah in the Renaissance’, in *Jewish Thought in the Sixteenth Century*, ed. by Bernard Dov Cooperman (Cambridge, MA: Harvard University Press, 1983), pp. 186-242. For Pico, see also Brian P. Copenhaver, ‘The Secret of Pico’s Oration: Cabala and Renaissance Philosophy’, in *Renaissance and Modern Philosophy*, ed. by Peter A. French, Howard K. Wettstein and Bruce Silver (Boston: Blackwell, 2002), pp. 56-81.

⁴⁶ The best work on Christian Cabala arguably remains Francois Secret, *Les Kabbalistes chrétiens de la Renaissance* (Paris: Dunod, 1964); unfortunately he does not look at the Paracelsian phenomenon in conjunction with the Christian Cabala, mentioning Paracelsus, Croll and Van Helmont in passing.

⁴⁷ For Khunrath’s interest in *Voarchadumia*, see Peter Forshaw, ‘Early Alchemical Reception of Dee’, *Ambix* 52:3 (2005), 247-269 (p. 259).

⁴⁸ Croll, ‘Admonitory Preface’, pp. 70, 88.

may also be drawn on Khunrath and even John Dee. As Forshaw points out, both Khunrath and Dee distinguished between the real and the 'grammatical' Cabala.⁴⁹

3.2. The Influence of Paracelsus and his *Astronomia magna* (1537/8)

We have already described the early Van Helmont (1607) as an enthusiastic supporter of Paracelsus.⁵⁰ However, given the strong Severinian influence, it is not very clear to what extent Van Helmont was aware of Paracelsus's genuine work at this stage.⁵¹ Nevertheless, it is also possible that the aspiring Flemish alchemist read, or at least consulted, Paracelsus's *Nine Books of Archidoxes* and *Philosophia ad Atheniensis*, since he refers to them,⁵² and possibly *Astronomia magna* as well, since he refers to the arts of chaomancy, hydromancy and geomancy as representatives of the greater astronomy, ideas which he could have picked from the introduction to Paracelsus's fundamental treatise.⁵³

This somewhat lax reading of Paracelsus was subsequently rectified, since by 1630, the mature Van Helmont references many of the Swiss physician's texts in his letters to Mersenne. In the letter of 26 September 1630, Van Helmont quotes Paracelsus's *Astronomia magna* (*Philosophia sagax*) in relation to the Adept theme.⁵⁴ In the letter of 15 January 1631, Van Helmont refers to Paracelsus's *De vita longa* and the spurious *Liber Azoth* to back his idea of the existence of two types of lights (cold and hot); he also mentions Paracelsus's *Liber de renovatione et restauratione* as a support to his idea of the Alkahest.⁵⁵ In the letter of 30 January 1631, he cites *De occulta philosophia*,⁵⁶ and in 14 February 1631, *De pestilite*.⁵⁷ In the letter of 8th of February, he also mentions *Philosophia ad Atheniensis* and *De gradibus et compositionibus*.⁵⁸

Amongst Paracelsus's writings, Van Helmont's concept of a Christian Philosophy draws most heavily on his late work, particularly *Astronomia magna* (1537/8). I have already mentioned his indebtedness to this book in regards to the 'Adept' theme. Yet the influence of *Astronomia magna* goes beyond this and can be

⁴⁹ Forshaw, 'Early Alchemical Reception of Dee', p. 259.

⁵⁰ See Halleux, 'Helmontiana I', p. 37.

⁵¹ See above, chap. 2.2.1.

⁵² Broeckx, 'Le premier ouvrage', I, 387, II, 178.

⁵³ Broeckx, 'Le premier ouvrage', I, 387.

⁵⁴ '26 Septembre 1630', II, 531-537 (p. 534).

⁵⁵ '15 Janvier 1631', III, 33.

⁵⁶ '30 Janvier 1631', III, 53.

⁵⁷ 'Jean Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris, 14 Fevrier 1631', III, 108.

⁵⁸ 'Jean Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris, 8 Février 1631', III, 81.

seen as a fountainhead for his wider framework of Christian Philosophy. Indeed, *Astronomia* is deeply imbued with Christian themes.⁵⁹ Here Paracelsus proclaimed himself a Christian and rejected any accusations of heathen teaching.⁶⁰ Paracelsus affirms his belief in a philosophy borne out of the Bible:

Holy Scripture represents the beginning of all philosophy and natural science [...] Consequently, if a philosopher is not born out of theology, he has no cornerstone upon which to base his philosophy. For truth springs from theology, and cannot be discovered without its help.⁶¹

Astronomia affirms God's creation of all things *ex nihilo* and resembles the *Ortus* in its tendency to intersperse quotations from the Bible to support its assertions, many of which can be found in Van Helmont's works as well. Like Van Helmont, *Astronomia* argues that man is an *imago Dei*, imparted by the Spirit of God, and this dwells in the immortal soul, which is the only part of man that survives death.⁶² The *Astronomia* similarly rejects Adamic flesh, which it deems mortal and perishable, and argues that the eternal body will be created through fiery purification.⁶³ It also states that Christ was born without an Adamic seed.⁶⁴ Through baptism, human beings can also be born anew (regenerated) in the shape of Christ.⁶⁵ As we shall see in the chapter On God, all these ideas are very similar to Helmontian arguments.⁶⁶

To these religious ideas is further appended an entire philosophy whereby Paracelsus attempts to place magic within a Christian framework.⁶⁷ Thus, he upholds natural magic but affirms that celestial magic is superior as a type of divine power.⁶⁸ It is in this celestial, Christian magus that Van Helmont's ideas of the 'Adepts' must be

⁵⁹ See also Hartmut Rudolph's remark that this work offers a natural philosophical viewpoint 'that is theological in a Christian sense', 'Hohenheim's Anthropology in the Light of his Writings on the Eucharist', in *Paracelsus: The Man and his Reputation, His Ideas and their Transformation*, ed. by Ole Peter Grell (Leiden: Brill, 1998), pp.187-207 (p. 199); see also 'Kosmosspekulation und Trinitätslehre: Ein Beitrag zur Beziehung zwischen Weltbild und Theologie bei Paracelsus', *Salzburger Beiträge zur Paracelsusforschung*, 21 (1980), 32-47 (p. 33) where Rudolph describes Paracelsus as a 'natural philosopher functioning as a biblical-Christian apologist.'

⁶⁰ Theophrastus Paracelsus, 'Astronomia Magna', in *Paracelsus: Essential Readings*, ed. by Nicholas Goodrick-Clarke, pp. 109-144 (pp. 111-112).

⁶¹ Paracelsus, 'Astronomia Magna', in *Paracelsus: Essential Readings*, p. 116.

⁶² Paracelsus, 'Astronomia Magna', in *Paracelsus: Essential Readings*, p. 111; see also Theophrastus Paracelsus, 'Astronomia Magna sive Tota philosophia sagax', X, 266-270.

⁶³ Dane T. Daniel, 'Medieval Alchemy and Paracelsus' Theology: Pseudo-Lull's *Testamentum* and Paracelsus' *Astronomia Magna*', *Nova Acta Paracelsica*, 22/23 (2008/2009), 121-135 (p. 134).

⁶⁴ Paracelsus, 'Astronomia magna sive Tota philosophia sagax', X, 279-281.

⁶⁵ See Ute Gause, 'On Paracelsus's Epistemology in his Early Theological Writings and in his *Astronomia Magna*', in *Paracelsus: The Man and his Reputation, His Ideas and their Transformation*, ed. by Ole Peter Grell (Leiden: Brill, 1998), pp. 207-221 (p. 219).

⁶⁶ See below, chapter 4.1.

⁶⁷ For Paracelsus's consideration of magic, see also Webster, *Paracelsus: Medicine, Magic and Mission*, pp. 153-168.

⁶⁸ Paracelsus, 'Astronomia magna sive Tota philosophia sagax', X, 296-297, 320-321.

sought. The magus is reborn through the Holy Spirit, and can effect wondrous things on earth.⁶⁹ His power includes the magical astronomy mentioned by Van Helmont, which bestows the gift of prophecy.⁷⁰

Of fundamental importance to Van Helmont's project of Christian Philosophy is the theory of the two Lights, the Light of Grace and the Light of Nature. Paracelsus posits that both lights come from the same source, God, who is conceived as light itself.⁷¹ As Webster points out, 'Paracelsus argued that the light which provided the path to grace was also the light of nature given to guide man to the *secreta, mysteria* and *magnalia*'.⁷² The correspondence of the two lights provides the theoretical basis for Paracelsus's attempt to reconcile the study of Nature with religion. In this vision, religion and science represent the pursuit for the same truth of God. Such an idea justifies the concept of a Christian philosophy, and provides a background for the pursuit of sacred wisdom. The doctrine of the two lights was followed by many enthusiastic Paracelsians, to the point where some of them, like Adam Haslmayr and Benedict Figulus, embraced it as a type of new religion.⁷³

Oswald Croll also dealt at length with the theory of the two lights, which is an important key to understanding his ideas of the unification of knowledge. As Croll argued,

The Light of Grace begetteth a true Theologer; yet not without Philosophy: the Light of Nature, which is the Treasury of God confirmed in the Scriptures, maketh a true Phylosopher, yet not without Theologie, which is the Foundation of true Wisdom [...] Hence it is plaine that every true Theologer is a Phylosopher, and every true Phylosopher is a Theologer.⁷⁴

Hence Croll advocated that the theological and philosophical truths are the same, and that the pursuit of both lights was ultimately sanctioned by their origin in the Holy Spirit.⁷⁵

⁶⁹ Arlene Miller Guinsburg, 'Paracelsian Magic and Theology: A Case Study of the Matthew Commentaries', *Medizinisches Journal*, 16:1/2 (1981), 125-139 (p. 135); see also Rudolph, 'Hohenheim's Anthropology', p. 204.

⁷⁰ Paracelsus, 'Astronomia magna sive Tota philosophia sagax', X, 99.

⁷¹ Weeks, *Paracelsus: Speculative Theory*, p. 183. See Paracelsus, 'Paragranum' in *Paracelsus: Essential Theoretical Writings*, ed. and trans. by Andrew Weeks, Aries Book Series 5 (Leiden: Brill, 2007), p. 269: 'the Holy Spirit is the igniter of the light of nature'.

⁷² Webster, *From Paracelsus to Newton*, p. 57.

⁷³ Gilly, 'Theophrastia Sancta', p. 166, calls it the 'religion of two lights'.

⁷⁴ Croll, 'Admonitory Preface', p. 135.

⁷⁵ Croll, 'Admonitory Preface', p. 135.

In turn, such juxtaposition frightened many Aristotelian supporters of alchemy, such as Andreas Libavius, who objected to the unification of the lights.⁷⁶ As Owen Hannaway summarises Libavius's argument, the Paracelsian error was 'to confound the two sources of knowledge, the light of nature and the light of grace, in an all-encompassing enthusiastic interpretation which reaches the height of vanity and impiety'.⁷⁷

A history of the influence of the *Astronomia magna* on Paracelsian thought has not been undertaken; however, it is clear that it had a strong impact on the following generations of Paracelsians, as Gilly's and Hannaway's studies have begun to unveil.⁷⁸ In addition, Severinus's mention of the 'adept philosophy' shows that he had read and adopted at least that idea from Paracelsus. Other influences may be unearthed through careful study of the themes of the *Astronomia*.

3.3. Petrus Severinus's Influence

Severinus was the first Paracelsian commentator to bring an aura of relative respectability to Paracelsian philosophy.⁷⁹ Despite Thomas Erastus's attack on him, Severinus was highly influential, and most post-1570 Paracelsians were influenced by his interpretation at least to some degree.⁸⁰

As already mentioned, the early Van Helmont's *Eisagoge* was, to a large extent, a reiteration of Severinus's ideas. The middle Van Helmont continued his engagement with Severinus. Indeed, Hiro Hirai has shown that the ideas of 'De Spadanis' (1624) betray the ongoing influence of the Danish physician.⁸¹ His argument is persuasive, and supported by direct evidence: Van Helmont cited Severinus in a letter he sent to Mersenne on 30 January 1631 and presumably in another previous letter now lost, wherein he talked about the Paracelsian elements and principles.⁸²

Moreover, Shackleford has also argued that the later thought of the *Ortus medicinae* bears the mark of the continuing influence of Severinus.⁸³ This, he maintains, is evident in Van Helmont's description of the Archeus, ferments, the concept of disease

⁷⁶ Owen Hannaway, *Chemists and the Word* (Baltimore, MA: Johns Hopkins University Press, 1975), pp. 98-99.

⁷⁷ Hannaway, *Chemists and the Word*, p. 100.

⁷⁸ This was already noticed by Hannaway, *The Chemists and the Word*, pp. 7-8.

⁷⁹ Shackleford, *A Philosophical Path*, pp. 209-249.

⁸⁰ Shackleford, *A Philosophical Path*, pp. 209-249.

⁸¹ Hirai, *Le concept de semence*, pp. 445-450.

⁸² 'Jean Baptiste Van Helmont, à Bruxelles, à Mersenne, à Paris, 30 Janvier 1631', III, 52-67 (p. 55).

⁸³ Shackleford, *A Philosophical Path*, p. 247.

and of generation. Although his argument has merit, I will show that some of the key Severinian concepts are altered in the *Ortus*.⁸⁴ Moreover, his analysis of Van Helmont is somewhat marred, as that of most scholars to date, by his limited knowledge of Van Helmont's theological bases of argumentation. For instance, Shackleford maintains that 'For both Severinus and Van Helmont, the ideas or images of diseases were created by God when he regretted the making of man.'⁸⁵ On the contrary, Van Helmont believed that God was not at all responsible for either man's death or disease, and that human beings were solely responsible for bringing those calamities upon themselves.⁸⁶

At the same time, this indebtedness raises the question of whether Van Helmont might have found support for his concept of Christian philosophy in Severinus. In comparison with Paracelsus and with Croll, there seems to be little outspoken Christian philosophy in Severinus, at least as evidenced by scholars.⁸⁷ Hirai pointed out that the Biblical themes did not entice Severinus as they did Paracelsus and he was not interested in arguing on behalf of such Christian ideas as *creatio ex nihilo* or the Word.⁸⁸

Still, one can find traces of Christian thought in Severinus in his reliance on Paracelsus (including the *Astronomia magna*) and Renaissance thinkers such as Pico della Mirandola and Jean Fernel.⁸⁹ One must also consider Severinus's employment of such ideas as the harmony of nature, which he calls 'the divine analogy',⁹⁰ the belief in one universal medicine, and especially the Augustinian concept of the seminal reasons planted by God through the virtue of the Word and Spirit of God hovering over the waters.⁹¹

Nevertheless, Severinus's suggestions are more implied than made outright, and Severinian influence seems insufficient to account for Van Helmont's elaborate Christian philosophical ideas. They do indeed suit the limited Christian themes of the *Eisagoge* and the insistence on the medical and natural philosophical ideas of Paracelsus. However, for his subsequent works further influences must be sought out, and I will argue that Oswald Croll is such a major source of ideas.

⁸⁴ See chapter 4.2. On Nature.

⁸⁵ Shackleford, *A Philosophical Path*, p. 247.

⁸⁶ See below, chap. 4.1 On God, and 4.3. On Man.

⁸⁷ Here I am referring mainly to the works of Jole Shackleford and Hiro Hirai.

⁸⁸ Hirai, *Le concept de semence*, p. 242.

⁸⁹ For the Renaissance influence, see Hirai, *Le concept de semence*, pp. 222, 220, 224-225.

⁹⁰ Hirai, *Le concept de semence*, p. 222.

⁹¹ Petrus Severinus, *Idea medicinae*, pp. 41-42. On this, see further on chapter 4.2. On Nature.

3.4. Oswald Croll's Influence

Oswald Croll became famous after his death for his posthumously published work *Basilica chymica* (1609). This contains one of the best-known defences of Paracelsian ideas, and as such was the object of a 1975 study by Owen Hannaway, who contrasted Croll's approach with that of Libavius. This work, relying mainly on Walter Pagel's study of Paracelsus and Frances Yates's *Giordano Bruno and the Hermetic Tradition*, is rather outdated and has been of limited use for the analysis below.

I have no direct evidence that Van Helmont had read the *Basilica*, since he did not quote Croll at all. However, a comparison of the ideas of Van Helmont and Croll, I believe, shows that the Flemish physician was in fact thoroughly acquainted with it. Moreover, one should not forget that Van Helmont could not have been unaware of Croll's crucial arguments in favour of the weapon salve at the time he wrote *De magnetica*.

Croll's 'Admonitory Preface' to the *Basilica chymica* advocates a Paracelsianism with strong Christian overtones.⁹² Indeed, before Van Helmont, his is arguably the most eloquent affirmation of the necessity of creating a new Christian Philosophy. Croll affirms that 'true Phylosophy should be grounded on the Scriptures and so return into God' and that 'Christians should not be ruled by Heathen Phylosophy'.⁹³ Croll firmly believes that the theological and philosophical truth correspond, as does the Light of Grace with that of Nature.⁹⁴

With Croll we see a coherent attempt at grounding his theological ideas in a Christian thought of mystical persuasion. He insists on the fundamental incomprehensibility of God, a doctrine which he traces back to Pseudo-Dionysius the Areopagite, who Van Helmont is also eager in quoting.⁹⁵ Thus, according to Croll, God is the 'fountaine of the Abyesse' and the 'Sea of Nihilitude or Nothingnesse'.⁹⁶

Like Van Helmont, Croll pays major attention to God and His role in relationship with Man and Nature. Croll emphasises the direct intervention and immanence of God in matter in a manner that we will find in Van Helmont as well. God

⁹² For the purpose of the comparative analysis I have used the English translation of Croll, 'The Admonitory Preface', pp. 1-226.

⁹³ Croll, 'Admonitory Preface', chap. 1, p. 51; the second quotation is on the margin. See also, 'our study therefore and profession of Phylosophy should be Christian-like, not after the manner of the Heathen in hollow empty language and temporaneous Arts, preferring the mortall and perishing before that which is Eternall'; chap. 5, p. 131.

⁹⁴ Croll, 'Admonitory Preface', chap. 5, p. 135; for this see also Hannaway, *The Chemists and the Word*, pp. 7-10.

⁹⁵ Croll, 'Admonitory Preface', chap. 1, p. 50.

⁹⁶ Croll, 'Admonitory Preface', chap. 6, p. 215.

is present in all creatures as their ‘inestimable goodness’; ‘all things flow from him’ as the Centre of everything that exists.⁹⁷ Elsewhere, Croll affirms that ‘within God are all things’⁹⁸ and that ‘he is all, and the onely life of all, and in all’.⁹⁹ Croll uses the same expression borrowed from St Paul that we will see Van Helmont employing for the same purpose: ‘Nothing is made out of God, for in him all things live, are moved and doe subsist.’¹⁰⁰

Croll admits, in line with Paracelsus, a role for heaven as ‘Father and teacher of all Arts’, but emphasises that regeneration and virtue must come from the Holy Spirit directly.¹⁰¹ He further remarks that ‘there is no virtue, or power either in Heaven or Earth which descendeth not from God’.¹⁰² Indeed, God is the ‘Efficient, Principall, and Finall Cause of all Creatures and Operations’.¹⁰³

Some further key themes on God in Croll can also be found in Van Helmont, such as the importance of the Word (*Fiat*).¹⁰⁴ For Croll, the Word *Fiat* is the primordial essence out of which God fashioned the *prima materia*, made up of the three principles; the elements are secondary creations.¹⁰⁵ By virtue of the Word and the Spirit hovering above the Waters, God placed the light and seeds of all things into places.¹⁰⁶ Moreover, the Word is the ‘Caelestiall Medicine’ which makes all medicines powerful.¹⁰⁷ The Word is, as Croll specifies, ‘the increated Mercy of God [...] which healeth and preserveth all things’.¹⁰⁸

Croll’s anthropology also bears strong resemblance to Van Helmont’s. We can find in Croll both the dichotomy of the inner (immortal) and outer (mortal) man,¹⁰⁹ and the tripartite anthropology of soul, spirit and body.¹¹⁰ Like Van Helmont, he put a special emphasis on man being the image of God,¹¹¹ an idea directly linked with the theme of *gnothi seauton*, ‘know thyself’, which is interpreted in a mystical sense as

⁹⁷ Croll, ‘Admonitory Preface’, chap. 1, pp. 31, 56.

⁹⁸ Croll, ‘Admonitory Preface’, chap. 1, p. 56.

⁹⁹ Croll, ‘Admonitory Preface’, chap. 2, p. 83.

¹⁰⁰ Croll, ‘Admonitory Preface’, chap. 2, p. 86.

¹⁰¹ Croll, ‘Admonitory Preface’, chap. 1, p. 45.

¹⁰² Croll, ‘Admonitory Preface’, chap. 2, pp. 84-85.

¹⁰³ Croll, ‘Admonitory Preface’, chap. 6, p. 193, chap. 1, p. 22.

¹⁰⁴ Croll, ‘Admonitory Preface’, chap. 1, p. 32; chap. 2, p. 85; for the importance of the divine Word in Croll, see also Hannaway, *Chemists and the Word*, pp. 19-20.

¹⁰⁵ Croll, ‘Admonitory Preface’, chap. 1, p. 32.

¹⁰⁶ Croll, ‘Admonitory Preface’, chap. 1, p. 34.

¹⁰⁷ Croll, ‘Admonitory Preface’, chap. 2, p. 83; see also ‘Admonitory Preface’, chap. 5, p. 172.

¹⁰⁸ Croll, ‘Admonitory Preface’, chap. 2, pp. 85, 86.

¹⁰⁹ Croll, ‘Admonitory Preface’, chap. 1, p. 45 on margin; also 61 on margin.

¹¹⁰ Croll, ‘Admonitory Preface’, chap. 1, pp. 60-61

¹¹¹ Croll, ‘Admonitory Preface’, chap. 1, pp. 48; 57

knowing the God within.¹¹² Indeed, Croll insists, ‘no Man can be without God, in whom we are, and live and are moved.’¹¹³

Like Van Helmont, Croll advances, through fervent internal prayer, ‘the Understanding or Mind flaming with a Religious love is joined to the separated Intelligences’.¹¹⁴ The highest mystical state is that whereby one would

know God himself the maker of all things, and passe into him with a full image of his likenesse, as with a kind of essentiall touch without a bond, whereby thou mayest be transform’d, and made (as it were) a God.¹¹⁵

Croll’s ideas on nature and biology also resemble Van Helmont’s. Croll’s internal Heaven or the *Astrum*, also called the sidereal spirit, bears strong resemblance to Van Helmont’s *Archeus*. In fact, as Croll further points out, the *Astrum* is the same as the Paracelsian *Vulcanus* and *Archeus*.¹¹⁶ Heaven does not infuse (*influere*) virtue into things, because they have their own internal heaven that governs them.¹¹⁷ Moreover, Croll uses the *Archeus* to express the internal, innate alchemist in the stomach which separates the pure from the impure.¹¹⁸

Finally, Van Helmont’s ideas of the ‘Adepts’ as a *prisca theologia* resemble those of Croll. Croll’s *prisca sapientia* lineage includes, from the ancients, Democritus, Pythagoras, Plato and Hermes.¹¹⁹ To this he adds the alchemists to the list, including Roger Bacon, Morienus, Rhasis, Albertus Magnus, George Ripley, Denis Zachaire, Arnold of Villanova and Raymond Lull, some of whom incidentally are also present on the frontispiece of the 1609 Latin edition of the work.¹²⁰

For Croll, as for Van Helmont, adept philosophy found its pious consummation in medicine. The highest secret adepts could attain, Croll maintains, is the universal medicine of long life, which is the true ‘adept philosophy’.¹²¹ This medicine was known to Adam, but the knowledge of it became hidden and can be unveiled only by the

¹¹² Croll, ‘Admonitory Preface’, chap. 1, pp. 47-48. Van Helmont would have agreed that ‘the Spirit of God dwelleth in the midst of our hearts’, p. 47.

¹¹³ Croll, ‘Admonitory Preface’, chap. 5, p. 176.

¹¹⁴ Croll, ‘Admonitory Preface’, chap. 1, p. 74.

¹¹⁵ Croll, ‘Admonitory Preface’, chap. 6, p. 213.

¹¹⁶ Croll, ‘Admonitory Preface’, chap. 1, p. 68.

¹¹⁷ Croll, ‘Admonitory Preface’, chap. 1, p. 31.

¹¹⁸ Croll, ‘Admonitory Preface’, chap. 5, p. 143.

¹¹⁹ Croll, ‘Admonitory Preface’, chap.1, p. 18.

¹²⁰ Croll, ‘Admonitory Preface’, chap.1, pp. 55, 72.

¹²¹ Croll, ‘Admonitory Preface’, chap. 2, p. 97.

diligent searchers into Nature.¹²² Illumination by God is equally necessary in order to attain it, and knowledge of it will be given only to those whom God chooses.¹²³

Such similarity between Van Helmont and Croll raises the question of what might be the differences between them. In fact, changes of outlook are more evident in the late *Ortus* than elsewhere. Croll insists on the macrocosm-microcosm analogy and the three principles, which the later Van Helmont changed in meaning.¹²⁴ Croll's emphasis on the sidereal spirit, the intermediary between body and soul, can be found highlighted in Van Helmont's *De magnetica*, but is less present in the later Van Helmont.¹²⁵ Croll's God is the one that sowed disease and poison in things, while Van Helmont's benevolent God would not be held responsible for evil and death.¹²⁶ Finally, although Croll does emphasise the direct action of God in things, this is less pronounced than in Helmontian writings, since he admits a number of intermediaries like the Heaven and the Intelligences.¹²⁷

3.5. Joseph Du Chesne

We have already seen that Van Helmont referred to Joseph Du Chesne or Quercetanus in several of his writings. Van Helmont seems to have been well informed of the debates that were going on at the time at the University of Paris.¹²⁸ In a letter to Mersenne he mentions the 1604 University of Paris injunction against Paracelsus caused by the writings of Du Chesne, to which Libavius had responded.¹²⁹

Nevertheless, his references to Du Chesne tend to be negative. Van Helmont particularly mistrusts Du Chesne's claim that the figure of herbs can be found in salt, as he believes that the herbal spirit is rather hidden in the invisible seminaria, or seeds.¹³⁰ Instead, the presence of the spirit can be detected in the gas bubble that is emanated by

¹²² Croll, 'Admonitory Preface', chap.6, pp. 218-219.

¹²³ Croll, 'Admonitory Preface', chap. 6, p. 185.

¹²⁴ Croll, 'Admonitory Preface', chap. 1, pp. 24, 31; on the microcosm – macrocosm analogy and its epistemological implications, see also Hannaway, *Chemists and the Word*, pp. 25-27.

¹²⁵ On Croll's sidereal or astral spirit, see Hannaway, *Chemists and the Word*, pp. 31-33.

¹²⁶ Croll, 'Admonitory Preface', chap. 2, p. 92, on the margin.

¹²⁷ See for instance, Croll, 'Admonitory Preface', chap. 2, p. 82.

¹²⁸ Allen Debus, *The French Paracelsians* (Cambridge: Cambridge University Press, 1991), pp. 46-65.

¹²⁹ '19 Décembre 1630', II, 585. This censorship took place on 12 April 1604; see also Didier Kahn, 'L'interprétation alchimique de la Genèse chez Joseph Du Chesne dans le contexte de ses doctrines alchimiques et cosmologiques', in *Scientiae et artes: Die Vermittlung alten und neuen Wissens in Literatur, Kunst und Musik*, ed. by Barbara Mahlmann-Bauer (Wiesbaden: Harrassowitz, 2004), pp 641-692 (p. 688).

¹³⁰ '26 Septembre 1630', II, 532. The point of Van Helmont here seems to be that the spirit cannot be seen in any condition.

fermenting cheese.¹³¹ This critique of Du Chesne reappears in *Ortus medicinae* on two occasions.¹³²

At the same time, Van Helmont describes the French physician as a ‘good man’ who was simply deceived by his own experiment.¹³³ Indeed, there was much in Du Chesne that Van Helmont would have found congruent with his worldview. Inspired by Severinus, Du Chesne supported the idea of a *prisca sapientia* of alchemical persuasion originating from Hermes and adopted by Hippocrates, an idea which we find reflected in Van Helmont as well.¹³⁴ This wisdom tradition resulted in the lineage of ‘Hermetical Philosophers’.¹³⁵

Du Chesne went even further, extending this wisdom tradition to Moses and Genesis. We have already seen Van Helmont pointing out to Mersenne that the Adept Cabala originated from Moses on Mount Sinai.¹³⁶ In line with this idea, Du Chesne wrote an alchemical interpretation of Creation that would have appealed to Van Helmont, except perhaps for the insistence on the three principles.¹³⁷ Du Chesne was also keen on proclaiming his orthodoxy, arguing that ‘all things have their beginning in God, upon whome all things do depende’.¹³⁸ He maintained that God is ‘the first and efficient cause of all things’, an idea which we find mirrored in Croll and Van Helmont as well.¹³⁹ Du Chesne’s God is also immanent in the universe as *natura naturans* and Universal Nature.¹⁴⁰ This Universal Nature, which is equated with the Platonic Soul of the World and the Spirit of God hovering over the waters, is a divine virtue implanted in all things, as Pythagoras, Plato and Hermes bear witness.¹⁴¹ While the late Van Helmont shied away from the concept of the Soul of the World, which could have pantheistic connotations, the middle Van Helmont seemed to support this view, associating it with

¹³¹ ‘26 Septembre 1630’, II, 532.

¹³² Van Helmont, chap. 59, ‘A Modern Pharmacopolion and Dispensatory’, p. 459; ‘Pharmacopolion ac Dispensatorium modernorum’, p. 368.

¹³³ Van Helmont, chap. 59, ‘A Modern Pharmacopolion and Dispensatory’, p. 459; ‘Pharmacopolion ac Dispensatorium modernorum’, p. 368.

¹³⁴ Joseph Du Chesne, *The Practice of Chymicall and Hermeticall Physicke for the Preservation of Health*, trans. by Thomas Tymme (London: Thomas Creede, 1605), chap 1 (there are no page numbers); see also Hirai, *Le concept de semence*, p. 270; Du Chesne adds Aristotle to this list of Hermetic Philosophers, an idea which Van Helmont would have abhorred (chap 14).

¹³⁵ Du Chesne, *The Practice of Chymicall and Hermeticall Physicke*, chap. 2.

¹³⁶ This idea is most likely drawn from Pico della Mirandola; see *Syncretism in the West: Pico's 900 theses (1486): the evolution of traditional, religious, and philosophical systems: with text, translation, and commentary*, ed. by Sharon A. Farmer and Stephen A. Farmer (Michigan: Medieval & Renaissance Texts & Studies, 1998), p. 205.

¹³⁷ For an exhaustive analysis of Du Chesne’s alchemical interpretation of Genesis see Didier Kahn, ‘L’interprétation alchimique de la Genèse’, pp. 682-689.

¹³⁸ Du Chesne, *The Practice of Chymicall and Hermeticall Physicke*, chap 2.

¹³⁹ Du Chesne, *The Practice of Chymicall and Hermeticall Physicke*, chap 2.

¹⁴⁰ Du Chesne, *The Practice of Chymicall and Hermeticall Physicke*, chap 2.

¹⁴¹ Du Chesne, *The Practice of Chymicall and Hermeticall Physicke*, chap 2.

the *magnale*.¹⁴² It is interesting to note that the *magnale* survived into the *Ortus medicinae*, albeit in an atrophied shape.¹⁴³

Thus, it is highly likely that Van Helmont read Du Chesne not only in a negative fashion, but as a mentor as well. He would have borrowed from Du Chesne's speculations on God and Genesis. However, it appears that Du Chesne's influence on Van Helmont was less pronounced than that of the triad of Croll, Paracelsus and Severinus.

3.6. 'The Waterstone of the Wise' and Paracelsian Christian Alchemy

Besides Paracelsus, Severinus, Croll and Du Chesne, Van Helmont could have been influenced by other Paracelsian writings of his era that advocated Christian alchemical ideas. Such may have been the case of 'The Waterstone of the Wise' ('Wasserstein der Weysen'), an anonymous treatise first published in Frankfurt, 1619, before being re-edited as 'Aquarium sapientum' in the influential *Musaeum Hermeticum* of Lucas Jennis in 1625. This work has been attributed by John Ferguson to Johann Ambrosius Siebmacher.¹⁴⁴

'The Waterstone' treatise, which betrays more than a passing influence of Croll's ideas, deals with the making of the supreme Arcanum, the Universal Medicine, which is put in the context of Christian thought. The author maintains that the Medicine can only be obtained 'by the grace of God', through prayer rather than human endeavour.¹⁴⁵ Just as for Van Helmont, divine illumination is prerequisite and essential for laboratory work.¹⁴⁶ Elsewhere the author underlines that true religion must be sought before the knowledge of the Philosophers' Stone.¹⁴⁷ The reason is that 'it is not merely difficult, but quite impossible, to prepare the Philosophers' Stone without a true knowledge of Christ, the heavenly Corner Stone, in whom all Nature lives, and moves, and has its being'.¹⁴⁸

¹⁴² '31 Février 1631', III, 111-112 maintains that 'magnale is in fact the soul of the universe'.

¹⁴³ See my analysis of the *magnale* in chapter 4.2. On Nature.

¹⁴⁴ John Ferguson, *Bibliotheca Chemica*, 2 vols (Glasgow: James Maclehose & Sons, 1906), II, 384-385.

¹⁴⁵ 'The Waterstone of the Wise', pp. 74-75.

¹⁴⁶ 'The Waterstone', p. 78: 'when you have exercised yourself with exceeding diligence in the oratory...go into the laboratory'.

¹⁴⁷ 'The Waterstone', p. 115.

¹⁴⁸ 'The Waterstone', p. 115.

Like Van Helmont's work, 'The Waterstone' comprises a strong Christological view, whereby Christ is both knowledge and salvation.¹⁴⁹ In fact, the treatise adopts the medieval alchemical topos of comparing Christ with the *lapis*; thus, the author develops an elaborate analogy of the earthly philosophical stone with the spiritual and heavenly stone Jesus.¹⁵⁰ The treatise adopts the view that alchemy must uncover the universal Spirit of God which hovered above the waters, which is the same as the spiritual essence found everywhere and in everything.¹⁵¹

God Himself is seen in apophatic terms as incomprehensible and unknown, but manifested through His Son Christ.¹⁵² Moreover, it claims that the Art of alchemy allows us to understand the nature of God, more precisely:

the essence of the Holy Trinity, and the Oneness of Substances in that Trinity, as well as the difference of Persons, the Incarnation of the Second Person of the Holy Trinity, His Nativity, Passion, Death and Resurrection, His Exaltation and the Eternal Happiness won by Him for us men, also our purification from original sin...and in brief all the articles of the Christian faith...all this we see in our Art as it were in a mirror.¹⁵³

The treatise develops an impressive array of correspondences between the doctrines of the Christian religion and alchemical processes. As an example, the treatise explains,

For as in our philosophical work another most noble and cognate metallic body must be united to our first substance (if it is to be rendered effectual for the perfecting of other metals) and joined together with it into one body, so the Divine Nature of the Son of God had to take upon itself, as it were, another kindred 'metallic' body, namely our human nature, our human flesh and blood (which, having been created in the image of God, has the greatest affinity with Him), and to be joined with it into one indissoluble whole.¹⁵⁴

Furthermore, the treatise affirms that the perfect compatibility of Christianity with alchemy can be used as an instrument to convert 'unbelievers' or 'heretics', which

¹⁴⁹ 'The Waterstone', pp. 93-97.

¹⁵⁰ 'The Waterstone', p. 93.

¹⁵¹ 'The Waterstone', p. 78.

¹⁵² 'The Waterstone', p. 97.

¹⁵³ 'The Waterstone', p. 88.

¹⁵⁴ 'The Waterstone', pp. 99-100.

are identified with ‘the Aristotelians’ and ‘blind theological quibblers’.¹⁵⁵ This idea seems particularly similar to Van Helmont’s, albeit it originates from Petrus Bonus (fl. fourteenth century) as shall be shown below. This work may have been a source of inspiration for him around the time he was keenly interested in the subject of Christian alchemical correspondences, as the ‘Ad Judicem’ suggests.

With both ‘The Waterstone’ and Van Helmont, we see a specific fascination with alchemical ideas that originated in Middle Ages. The early seventeenth century was indeed the period when many medieval alchemical treatises were printed, some for the first time ever. Chief amongst these were the first five volumes of the *Theatrum chemicum* of Lazarus Zetzner of Strasbourg, which contained works by Bernard Trevisan, George Ripley (c. 1415-1490), Roger Bacon (c. 1214-1294), Albertus Magnus, Pseudo-Lull, Johannes de Rupescissa (d. 1366), Arnau of Villanova (1240-1311), Petrus Bonus and others. At this point it is worth taking a look at Van Helmont’s reading of medieval alchemists and drawing conclusions as to his interest in their Christian philosophical ideas.

3.7. The Influence of Christian Medieval Alchemy

Van Helmont was naturally drawn to medieval alchemy as part of his search for the true knowledge of the Adepts. His keenness on reading older alchemical writers was linked with his firm belief in the antiquity of the Hermetic school or the Adept knowledge, both of which sprang from Hermes Trismegistus as an ancient wisdom-tradition (*prisca sapientia*).

Apart from the mythical Hermes, whose *Poimandres* and *Tabula Smaragdina* he quotes, the *Ortus* and *Opuscula* cite four medieval alchemists: Geber,¹⁵⁶ Raymond Lull,¹⁵⁷ Roger Bacon¹⁵⁸ and Petrus Bonus of Ferrara.¹⁵⁹ The influence of Geber on Van

¹⁵⁵ ‘The Waterstone’, p. 100.

¹⁵⁶ Van Helmont, chap. 11, ‘The Essay of a Meteor’, p. 65, ‘Progymnasma meteor’, p. 56; chap. 80 ‘Of Material Things Injected or Cast into the Body’, p. 598, ‘De injectis materialibus’, p. 475, *Opuscula medica inaudita*, ‘A Treatise on the Disease of the Stone’, chap. 3, ‘The Content of Urine’, p. 841, ‘Tractatus de Lithiasi’, chap. 3, ‘Contentum urinae’, p. 669.

¹⁵⁷ Van Helmont, *Opuscula medica inaudita*, ‘A Treatise on Disease of the Stone’, chap. 3, ‘The Content of Urine’, p. 840, ‘Tractatus de Lithiasi’, chap. 3, ‘Contentum urinae’, p. 668; ‘A Treatise on Fevers’, chap. 14, ‘A Perfect Curing of All Fevers’, p. 988, ‘De Febribus’, chap. 14, ‘Perfecta febrium omnium sanatio’, p. 774. He also refers to the Lullian Art in chap. 3, ‘The Hunting or Searching Out of Sciences’, p. 17, ‘Venatio scientiarum’, p. 17 and the preface of the ‘Treatise on the Disease of the Stone’, but rejects it as discursive.

¹⁵⁸ Van Helmont, chap. 55, ‘The Three First Principles of the Chymists’, p. 411, ‘Tria prima chymicorum’, p. 331.

Helmont's work, particularly on his ideas on corpuscularianism, mercury and the Alkahest, has been analysed by William Newman.¹⁶⁰ As Newman observes, what may very well be the most 'mechanical' of medieval alchemists is received in 'vitalistic' terms by Van Helmont.¹⁶¹ Yet what is more interesting for the scope of our present inquiry is that Van Helmont adds a religious dimension to his appropriation of Geberian alchemy. Thus, having postulated the existence of the Alkahest, Van Helmont comments:

...religion is amazed or astonished at the finding of a latex or liquor, which being reduced to the least Atomes possible to nature, as loving a single life, would despise the Wedlocks of every ferment [...] the Serpent hath bitten himself, hath revived from the poison, and knows not hereafter to die.¹⁶²

At first glance, one may wonder what the Alkahest might have to do with religion, but it is clear that for Van Helmont the solvent is more than a natural object: it is above nature, having been purified of its dregs. The implication is that alchemy can create something supernatural. The virgin nature of the Alkahest allows it to purify natural things not unlike the manner in which the virgin body of Christ purifies sinful human bodies through the Eucharist.¹⁶³ This parallel is not drawn out explicitly, but it is clear that in Van Helmont's mind virginity is linked with purification and regeneration.

If Van Helmont's appropriation of Geberian alchemy has received scholarly attention, the same cannot be said for his interest in Raymond Lull, apart from some remarks from Walter Pagel.¹⁶⁴ Perhaps this is because Van Helmont's view of Lull in his influential chapter 'Venatio scientiarum' is negative; he criticises the Lullian Art for being discursive and rational.¹⁶⁵ This criticism is a repetition of the one expressed in the introduction to the 'Treatise on the Disease of the Stone' in the *Opuscula medica inaudita*. Yet only a few pages further into this treatise we encounter a lengthy quotation from Raymond Lull's *Testamentum*, probably the lengthiest passage Van Helmont ever quoted. Ironically, this citation from chapter 26 is precisely about the necessity of illumination (*per revelationem secreti*) in alchemical work and the failure

¹⁵⁹ Van Helmont, chap. 80, 'Of Material Things Injected or Cast into the Body', p. 598, 'De Injectis materialibus', p. 475.

¹⁶⁰ Newman, 'The Corpuscular Theory', pp. 174-175, 182-185.

¹⁶¹ Newman, 'The Corpuscular Theory', pp. 186-188.

¹⁶² Van Helmont, chap. 19, 'The Image of the Ferment', p. 115, 'Imago fermenti', p. 94.

¹⁶³ On this see 4.1 On God.

¹⁶⁴ Pagel, *Joan Baptista Van Helmont*, pp. 25-26.

¹⁶⁵ Van Helmont, chap. 3, 'The Hunting or Searching Out of Sciences', p. 17, 'Venatio scientiarum', p. 17. For the Lullian art, see Frances Yates, 'The Art of Ramon Lull: An Approach to it through Lull's Theory of the Elements', *Journal of the Warburg and Courtauld Institutes*, 17: 1, 2 (1954), 115-173.

of logic to reach the ultimate truth.¹⁶⁶ This is indeed an important trope in the *Testamentum*, which insists that the knowledge of the alchemical magistry is only given through revelation.¹⁶⁷

Of course, Van Helmont could not have known that the *Testamentum* was not by Raymond Lull but by an anonymous author, but it is clear that he viewed this work much more positively than the ideas pertaining to the Lullian Art.¹⁶⁸ This is evident in that he cited 'Raymond' approvingly in two other occasions: in the 'Treatise on Fevers' and in a letter to Mersenne. In the citation from 'On Fevers', Van Helmont compares his Alkahest to Lull's coagulation of mercury, a fact which partially negates Newman's claim that the Alkahest is built mainly on Geber's ideas. Pseudo-Lull affirms that the body is susceptible to dissolution, and when 'it is well dissolved, the spiritus is congealed; and when the spiritus is congealed, the body is dissolved.'¹⁶⁹ Hence, argues Pseudo-Lull, 'our final secret is the congelation of mercury (quicksilver).'¹⁷⁰

Besides such ideas on Alkahest and intellectual illumination, Van Helmont would have found Pseudo-Lull's natural philosophy, interspersed with religious concerns, highly congruent to his own Christian philosophical project. In fact, the *Testamentum* could be read as a type of Christian alchemical philosophy, written in Aristotelian terms. Like Van Helmont's own philosophy, the *Testamentum* posits a harmonious unity between orthodox Christianity and a natural philosophy conceived in Aristotelian terms but also imbued with Platonic ideas.¹⁷¹

Pseudo-Lull's 'Theorica' also offers what might be one of the first alchemical interpretations of Creation, wherein it is postulated that God created *ex nihilo* a first universal substance, the quintessence, which contained within it all things.¹⁷² God separated this substance into three parts, out of which the angels, heavens, and inferior world were created.¹⁷³ Like Van Helmont, Pseudo-Lull argues that nature was created perfect, but the Original Sin corrupted it.¹⁷⁴

¹⁶⁶ 'Raymundi Lulli Theorica & Practica', in *Theatrum Chemicum*, 6 vols (Strasbourg: Lazarus Zetzner, 1613), IV, 1-171 (pp. 26, 43). The best treatment of the Pseudo-Lullian *Testamentum* is given by Michela Pereira, *Oro dei Filosofi: Saggio su l'idea di un alchimista del Trecento* (Spoleto: Centro Italiano di Studi sul'Alto Medioevo, 1992).

¹⁶⁷ 'Raymundi Lulli Theorica & Practica', IV, 29, 47.

¹⁶⁸ For the spread of the Pseudo-Lullian alchemical corpus in the medieval and Early Modern period, see Michela Pereira, *The Alchemical Corpus Attributed to Raymond Lull* (London: Warburg Institute, 1989).

¹⁶⁹ 'Raymundi Lulli Theorica & Practica', p. 32.

¹⁷⁰ 'Raymundi Lulli Theorica & Practica', pp. 30, 48.

¹⁷¹ Pereira, *Oro dei Filosofi*, pp. 174, 178.

¹⁷² 'Raymundi Lulli Theorica & Practica', p. 6. Interestingly, Dane T. Daniel associates this idea with Paracelsus's concept of man as microcosm created from *limus terrae*; 'Medieval Alchemy', pp. 128-129.

¹⁷³ 'Raymundi Lulli Theorica & Practica', p. 6.

¹⁷⁴ 'Raymundi Lulli Theorica & Practica', p. 7; Pereira, *Oro dei Filosofi*, 161.

The *Testamentum* also insists on the importance of Word which will burn everything by fire at the end of the world thus restoring its purity.¹⁷⁵ The final purgation at the end of the world, which would restore nature to its initial purity, is compared with the work of the alchemist in the laboratory.¹⁷⁶ Indeed, Pseudo-Lull's description of the magisterium that purges the entire world of its impurities and infirmities reminds one of the wondrous purificatory power of the *ignis gehennae* of Van Helmont.¹⁷⁷

The *Testamentum* also features other elements that invite comparison with the Flemish philosopher. For instance, we find in the *Testamentum* a tendency toward the dualism of spirit and matter, expressed in terms of active and passive, sulphur and mercury, potency and act.¹⁷⁸ There is also an insistence on ferment as a spirit,¹⁷⁹ and a quasi-spiritualisation of fire as the instrument of nature, the hammer which softens the iron and brings it to the will of the craftsman.¹⁸⁰

Besides Pseudo-Lull, whose ideas appear to have significantly influenced Van Helmont, the Flemish physician would have undoubtedly been attracted by the philosophy of Roger Bacon and of Petrus Bonus. In the former he would have found the affirmation of the *lapis* as a medicine, and a congruent theory of long life. Bacon based his ideas on prolongation of life on a thorough reading of the Bible, comparing his concept of universal medicine to the Tree of Life. Thus, according to Bacon, God had not made Adam's body perfect; instead, he required permanent nourishment from the Tree of Life.¹⁸¹ The Original Sin and expulsion from paradise meant that humanity was destined to die. Yet, Bacon claimed that a medicine like that contained in the Tree of Life could be obtained in this world. This universal medicine was an *arbor vitae*, albeit an imperfect one, as it could extend life but not ensure immortality.¹⁸² All such ideas can in turn be found in Van Helmont.¹⁸³

Petrus Bonus' *New Pearl of Great Price (Pretiosa margarita novella)* is another medieval work that combined Christianity and alchemical philosophy, expressed as by Pseudo-Lull in Aristotelian terms. The work was published for the first time in 1546 by Janus Lacinius at Venice, but it probably originated in the 1300s. This work also insists on divine revelation and intellectual knowledge as the only paths to the attainment of

¹⁷⁵ 'Raymundi Lulli Theorica & Practica', pp. 7-8.

¹⁷⁶ 'Raymundi Lulli Theorica & Practica', p. 76.

¹⁷⁷ 'Raymundi Lulli Theorica & Practica', p. 17.

¹⁷⁸ Pereira, *Oro dei Filosofi*, pp. 174-179.

¹⁷⁹ Pereira, *Oro dei Filosofi*, p.164.

¹⁸⁰ 'Raymundi Lulli Theorica & Practica', pp. 32, 51.

¹⁸¹ DeVun, *Prophecy, Alchemy and the End of Time*, pp. 85-86.

¹⁸² DeVun, *Prophecy, Alchemy and the End of Time*, pp. 85-86.

¹⁸³ See chapter 4.3 On Man.

the *lapis*, reason failing it.¹⁸⁴ In fact, Bonus posits that the *lapis* is created by God's hand and grace directly, and hence it is supernatural, an idea which we have seen implied in Van Helmont's views of the Alkahest.¹⁸⁵ Thus, Bonus argues, 'our work [...] is supernatural, since it unites earthly to heavenly things, and therefore it is called Divine, celestial, glorious, wonderful, most beautiful, most difficult.'¹⁸⁶

Bonus also compares the incorruptible Philosophers' Stone with the glorified body as well as with Christ.¹⁸⁷ Importantly, he also expresses a belief in a *prisca sapientia*; thus, he says, the 'Sages', chiefly Hermes and Plato, by means of alchemy, would have long discerned that man is the image of God and that God would become man in Christ.¹⁸⁸ Hence, Bonus believes that the ancient sages 'knew all about the resurrection of the body and the redeeming work of Jesus Christ, as also about the Trinity in Unity, and all the other verities of our faith.'¹⁸⁹ Bonus concludes by stating, 'I am firmly persuaded that any unbeliever who got truly to know this Art, would straightaway confess the truth of our Blessed Religion, and believe in the Trinity and in our Lord Jesus Christ.'¹⁹⁰ We have seen this idea repeated in the *Waterstone* and subsequently by Van Helmont at the Inquisition trial.¹⁹¹

It is clear at this point that Van Helmont found in the medieval alchemists a rich fount of ideas to support his Christian Philosophy. It is no surprise that he did so, since from its inception, alchemy had a sapiential and religious quality to it.¹⁹² This quality, present as early as the writings of Zosimos of Panopolis and other Greek alchemists, passed as a powerful current throughout the Arabic and into the Latin stage of alchemy.¹⁹³ The earliest translated treatise, that of Morienus Romanus in 1144, was accompanied by a prologue written by the translator Robert of Chester, who called

¹⁸⁴ Petrus Bonus of Ferrara, *The New Pearl of Great Price*, ed. by Janus Lacinius, trans. by Arthur Edward Waite (New York, NY: Arno Press, Inc, 1974), pp. 124, 127.

¹⁸⁵ Bonus, *The New Pearl of Great Price*, pp. 124-127.

¹⁸⁶ Bonus, *The New Pearl of Great Price*, p. 144.

¹⁸⁷ Bonus, *The New Pearl of Great Price*, pp. 125-126.

¹⁸⁸ Bonus, *The New Pearl of Great Price*, p. 127. The tradition of *prisca sapientia* was also held by the fifteenth-century alchemist Guglielmo Fabri, who refers to Pythagoras, Plato and the Chaldeans as carriers of alchemical secrets; see Crisciani, 'From the Laboratory to the Library: Alchemy according to Guglielmo Fabri', p. 302.

¹⁸⁹ Bonus, *The New Pearl of Great Price*, pp. 273-275.

¹⁹⁰ Bonus, *The New Pearl of Great Price*, p. 275.

¹⁹¹ See below, chapter 4.1 On God.

¹⁹² John Read, *Prelude to Chemistry* (London: Bell & Sons, 1936), pp. 9-10.

¹⁹³ See for instance E.J. Holmyard, *Alchemy* (Harmondsworth: Penguin, 1957), pp. 25-32, 97-102 etc. As he observes on pp. 158-159, 'the moral tone of mystical alchemy is very high, in Greek, Muslim and Christian writings alike.'

alchemical work 'divine and full of divinity'.¹⁹⁴ The work of the alchemist was described by Morienus as being analogous to that of the Creator.¹⁹⁵

Of significance for this philosophical-religious strand was the mythical figure of Hermes Trismegistus, the author of the *Tabula smaragdina* as well as the *Poimandres* and *Asclepius*. In the Middle Ages and Renaissance, alchemical writers viewed Hermes as a religious prophet who foresaw the coming of Christianity; we have already seen Bonus's affirmation of this principle. Guglielmo Fabri (fl. fourteenth century) also argued that in the *Tractatus aureus*, Hermes had confessed his belief in One God, free will, the Resurrection and the Last Judgment.¹⁹⁶

The idea of alchemy as a religious philosophy was further enhanced by the association of alchemical treatises with the revered names of Aristotle, Albertus Magnus, St Thomas Aquinas and Raymond Lull. Although many of these treatises are spurious, they helped establish alchemical speculation as valid religious philosophy, an alternative to the prevailing Scholastic philosophy of the Schools. They also perpetuated the image of an inner teaching, destined only to the few and not to the masses, as the 'official' writings of Aristotle or Aquinas. Indeed, Pseudo-Aquinas's *Aurora consurgens* (c.1350-1450) describes alchemy as *scientia Dei* and *doctrina sanctorum*.¹⁹⁷ In approximately the same period, the idea of alchemy as sacrosanct science was also expressed by Roger Bacon.¹⁹⁸ Linked with this religious aspect is the widespread theme of alchemy as *donum Dei*.¹⁹⁹

Unsurprisingly, many of the Christian alchemical treatises originated in religious circles, especially those of the Franciscans.²⁰⁰ Such was the case of the works of Roger Bacon, Johannes de Rupescissa, Bonaventura da Iseo (d. c. 1280), *The Book of the Holy Trinity* and the Arnaldian texts.²⁰¹ I have already noted the Franciscan inclination toward illuminationist ideas and prophecy above. Without dismissing *chrysopoeia*,

¹⁹⁴ Robert of Chester, 'Praefatio Castrensis', 'Liber de Compositione Alchemiae, quem edidit Morienus Romanus, Calid Regis Aegyptiorum: quem Robertus Castrensis de Arabico in Latinum transtulit', in *Bibliotheca chemica curiosa*, ed. by Johannes Jacobus Manget, 2 vols (Geneva: Chouet, G de Tournes, Cramer, Perachon, Ritter & S. De Tournes, 1701), I, 509-519 (509).

¹⁹⁵ Chiara Crisciani and Michela Pereira, *L'Arte del Sole e della Luna*, p. 72.

¹⁹⁶ Chiara Crisciani, *Il Papa e l'Alchimia* (Rome: Viella, 2002), p. 82. On Fabri, see also Chiara Crisciani, 'From the Laboratory to the Library', pp. 296-319.

¹⁹⁷ Marie Louise von Franz, *Aurora Consurgens: A Document Attributed to Thomas Aquinas on the Problem of Opposites in Alchemy* (Zurich: Inner City Books, 2000), pp. 156-157.

¹⁹⁸ Chiara Crisciani, 'Note Sull'Alchimia "Francescana" nel sec XIII', in *Atti del XXV Congresso Nazionale di Filosofia* (Roma: Societa filosofica italiana, 1980), pp. 214-220.

¹⁹⁹ Vladimir Karpenko, 'Alchemy as Donum Dei', *Hyle* 4:1 (1998), 63-80 (pp. 66-68).

²⁰⁰ See Crisciani, 'Note Sull'Alchimia "Francescana"', pp. 214-215.

²⁰¹ For the thirteenth-century figures, see Crisciani, 'Note Sull'Alchimia "Francescana" nel sec XIII', pp. 214-220. The Franciscan origin of the Book of the Holy Trinity is noted in Herwig Buntz, 'Alchemy III: 12th/13th-15th Century', in *Dictionary of Gnosis and Western Esotericism*, ed. by Wouter J. Hanegraaff (Brill: Leiden, 2006), I, 34-41 (p. 40).

these alchemists were generally keener on the preparation of alchemical medicine.²⁰² In fact, by the 1400s the creation of medicine seemed to have overshadowed the idea of making gold.²⁰³

It was particularly in the Arnaldian treatises that Christian themes and imagery were associated with alchemical operations.²⁰⁴ In these, the analogy between Christ and Philosophical Mercury, as well as between Christ's Passion and the alchemical process were emphasised.²⁰⁵ Indeed, Thorndike has observed that such ideas were widely recognised as belonging to Arnau.²⁰⁶ Nevertheless, it should be noted that they occurred around the same time in the *Visio* of John Dastin, so there may have been some earlier source on this topos.²⁰⁷

Later on, the Arnaldian association of Christ and Philosophical Mercury also appeared in alchemical imagery. In Gratheus (second part of the fourteenth century), the image of Philosophical Mercury as the Christ resurrected occurs for the first time.²⁰⁸ This image is later reproduced in a much more famous compilation, the Arnaldian *Rosarium Philosophorum* of 1550.²⁰⁹

Religious themes also passed into the Pseudo-Lullian corpus. Since Lull was imagined to be the disciple of Arnau of Villanova, it was surprising to no one that he would have continued in his footsteps. With Pseudo-Lull's *Testamentum*, to which was added Rupescissa's influential *De secretis naturae seu de quinta essentia*, alchemy acquired a new status as a religious philosophy.

Under the impulse of Arnaldian and Lullian texts, the fourteenth and fifteenth century saw the proliferation of alchemical treatises containing Christian themes, including the aforementioned *New Pearl of Great Price* by Petrus Bonus of Ferrara, the German *Book of the Holy Trinity* (*Buch der heiligen Dreifaltigkeit*),²¹⁰ and the Transylvanian *Alchemical Mass* of Melchior Cibirensis. In the 1400s and early 1500s

²⁰² Crisciani & Pereira, *L'Arte del Sole e Luna*, p. 70, noted how *chrysopoeia* and medical alchemy were connected by a common belief in a medicine that could render bodies incorruptible.

²⁰³ Crisciani and Pereira, *L'Arte del Sole e Luna*, p. 72.

²⁰⁴ Antoine Calvet, 'Alchimie et Joachimisme dans les Alchimica Pseudo-Arnaldiens', in *Alchimie et Philosophie à la Renaissance*, ed. by Jean-Claude Margolin and Sylvain Matton (Paris: J. Vrin, 1993), pp. 93-109 (pp. 100-101).

²⁰⁵ Lynn Thorndike, *History of Magic and Experimental Science*, 8 vols (New York: Columbia Univ. Press, 1923-1956), III, 77.

²⁰⁶ Thorndike, *History of Magic and Experimental Science*, III, 75.

²⁰⁷ Crisciani, *Il Papa e l'Alchimia*, p. 43.

²⁰⁸ Mino Gabriele, *Alchimia e Iconologia* (Udine: Forum, 1997), p. 41.

²⁰⁹ *Rosarium Philosophorum* (Frankfurt: Cyriacus Jacob, 1550), p. 96.

²¹⁰ Denis Duveen, 'Le livre de la très Sainte Trinité', *Ambix*, 3 (1948), 26-32 (p. 27); see also Herwig Buntz, 'Alchemy III', p. 40.

alchemical religious themes could also be found in George Ripley,²¹¹ Lazzarelli,²¹² da Correggio,²¹³ or Giovanni Bracesco (c. 1482-1555)²¹⁴ and others, all of whom drew mainly on the Pseudo-Lullian tradition.

By the time of Paracelsus, the intertwining of Christian ideas with alchemy was common, and the Swiss physician expanded upon something that was deeply enshrined within the alchemical culture of his age. In fact, as was briefly mentioned before, Dane T. Daniel argued that Paracelsus might have been influenced by the Christian ideas of Pseudo-Lull in his own theological-philosophical speculations.²¹⁵ Obviously, more work needs to be done on the appropriation of medieval Christian alchemy in the works of the Paracelsians, a subject which has received little attention.

3.8. Conclusions

This overview on the influences exercised on Van Helmont has shown the complexity of ideas at play within the Paracelsian and alchemical world inhabited by the Flemish physician. It further attempted to convey that, despite the dearth of referencing, Van Helmont was in fact inspired in his Christian and philosophical ideas by several Paracelsian predecessors, particularly Paracelsus, Severinus and Croll. With Paracelsus and Croll we have seen a commitment to creating a true Christian philosophy that would provide an alternative to the ‘heathen’ philosophy of the Scholastics.²¹⁶

Thus, Van Helmont was inspired by these contemporary Paracelsian thinkers to undertake his own journey toward alchemical illumination and formulate his personal framework of Christian Philosophy. Perhaps the strongest formative impact was represented by the concept of a *prisca sapientia*, transmitted by a chain of alchemical adepts, who had been inspired by God to obtain a higher, profoundly Christian knowledge of philosophy and medicine. It was undoubtedly this idea that led him into his dual journey of uncovering the wisdom of the ancients and the wisdom within himself.

²¹¹ Pereira, *The Alchemical Corpus*, p. 23; Jennifer Rampling, ‘Establishing the Canon: George Ripley and His Alchemical Sources’, *Ambix*, 55: 3 (2008), 189-208 (pp. 191-193).

²¹² Lodovico Lazzarelli, ‘Alchemical Writings’, in *Lodovico Lazzarelli (1447-1500): the Hermetic Writings and Other Documents*, ed. by Wouter J. Hanegraaff and Ruud M. Bouthoorn, pp. 271-281.

²¹³ Wouter Hanegraaff, ‘Pseudo-Lullian Alchemy and the Mercurial Phoenix’, in *Chymists and Chymistry*, ed. by Lawrence Principe (Sagamore Beach, MA: Watson International Publishing, 2007), pp.101-112 (pp. 108-109).

²¹⁴ Giovanni Bracesco, ‘Dialogo Lignum Vitae’, in *Vera Alchemiae Doctrina*, ed. by Guglielmo Gratarolo (Basel: Petrus Perna, 1561), pp. 242, 245.

²¹⁵ Daniel, ‘Medieval Alchemy’, p. 134.

²¹⁶ See above, chapter 2.1.

This journey started out around 1607 with young Van Helmont being an enthusiastic follower of Paracelsus, and ended with the now elderly Van Helmont renouncing or outgrowing his great mentor. Yet, as this chapter has tried to clarify, this distancing was caused mainly by forces interior to the Paracelsian *Weltanschauung*, rather than external influences. As we have seen, Paracelsus's ideas as articulated in *Astronomia Magna* encouraged individual mystical experience and knowledge on one hand, and on the other expressed the ideal of belonging to a higher school, that of the adepts, who were illuminated directly by the Holy Spirit.

Of course, this is not to say that the circumstances and imprisonment of Van Helmont did not have an impact on his views of Paracelsus, but certainly not in a straightforward, cause-and-effect fashion; if anything, they made Van Helmont more introspective and more committed to his mystical-Cabalistic path to knowledge. We have indeed found Van Helmont fearlessly exposing to Mersenne, the critic of Christian alchemy, precisely the views of Christian Paracelsianism, without feeling too timid about them.

In conclusion, it was alchemical thought and practice, whether Paracelsian or medieval, that influenced Van Helmont's engagement with Christian thought as part of a larger project of reforming natural philosophy. He clearly drew strength from the inner conviction of alchemists that their art had a privileged relationship with the divine. Alchemy also coloured specific conceptions of the way alchemy and Christianity can interact with each other in harmony. These specific views will be analysed in detail in the next chapter, which treats of Van Helmont's framework of Christian Philosophy.

Chapter 4: Themes of Helmontian Thought

This chapter undertakes an in-depth analysis of Van Helmont's ideas and project for a 'Christian Philosophy'. It attempts to offer an overview of his extensive vision that sought to comprise the main actors in the universe: God, Nature and Man.¹ Although Van Helmont's views were wide-ranging, his writings were not systematic in the Scholastic manner. Van Helmont's writing style can sometimes be confusing, as he is prone to jump from one topic to another within the same treatise, and the titles of some treatises sometimes do not reflect the substance of the text. While the disorder left by his rather unexpected death may be partially to blame, Van Helmont was also probably trying to move away from structured Scholastic writing.

The present chapter is divided into three main parts, on God, Nature and Man. For Van Helmont, God is the source of the existence of the world and human beings, hence an understanding of his thought must begin from divinity and descend down into Creation. Nature is created first and Man last, as a supreme manifestation of it and a special being, the image of God.

Van Helmont's speculation seeks to provide a coherent view of the relationships between these three actors of his philosophy. One must understand God, first of all, to understand Nature and Man. Such a logical structure of knowledge, which I have followed here, does not mean this is how Van Helmont envisions the process of knowledge unfolding. The understanding of God is deeply marred by Original Sin, which fogs the human mind. Hence, all philosophy must proceed from a process of illumination of the self, whereby the intellect is cleared of the shadows imprinted in the soul by Sin. From thence, enlightened Man can proceed to the knowledge of the revealed Face of God as well as of Nature.

¹ By 'Man' I refer to the general category of 'humankind' and not to a specific person or gender.

4.1 On God

Van Helmont's vision of Christian Philosophy can only be understood in conjunction with his fervent belief in God. God as the source and end of all things provides the basis of his thought and the key to understanding Helmontian speculation. Van Helmont does not view God as an abstract principle or a philosophical Demiurge. Instead, he perceives God as being the divinity chiefly revealed in the Bible and confirmed by Christian doctrine as the Holy Trinity.

Despite the centrality of God in Van Helmont's thought, there is no treatise dealing specifically with the topic, either in the *Ortus medicinae* or elsewhere. That Van Helmont generally shied away from direct theological speculation on God is in itself significant, but one can only speculate as to the reasons. A reason might be that he believed that his views on God were orthodox and in line with Catholic dogma, so he felt his ideas were only furthering an orthodox understanding of divinity. After all, Van Helmont never claimed to write a Christian theology, but a Christian philosophy, and his explicit purpose was to correlate Christian faith with knowledge of nature. Another reason might have been that, on the contrary, he felt some of his ideas were at odds with or liable to be misinterpreted by the Catholic mainstream; he may even have felt that he was meant to be understood only by fellow 'adepts', as he calls them. Given his persecution by the Inquisition and ecclesiastical court, the latter is a plausible possibility. That being said, Van Helmont did not shy away from affirming ideas that were controversial or even heretical, such as the view that the Original Sin was the sexual act.²

Given this reticence to discuss God directly, references to the divine are interspersed throughout Van Helmont's work. Even though disparate, Van Helmont's ideas about God are consistent and coherent. Sometimes they are revealed only by attributes such as 'incomprehensible' or 'divine Goodness', but at other times, God's implication in the life of Nature and Man becomes very explicit.

As will be shown, Van Helmont's ideas on God cannot be divorced from those of other Paracelsians in his era. Chief amongst these is panentheism, or the view that God is paradoxically both immanent and transcendent. This concept was part of an alchemical-Paracelsian vision of a world of vital forces which could be found in matter and extracted into medicine. Several Paracelsian philosophers also advocated

² For more on this, see below 4.1.4. 'God in Man'.

Christocentric ideas, developing a view of Christ as the Word present in matter and in Man's soul as the essential vehicle of Salvation. Van Helmont similarly supported a Christological view of Creation and man, with an emphasis on the Christian regeneration of the soul. He was particularly keen on advancing the complementarity between Christian doctrine and alchemical ideas, a complementarity that stands at the root of his vision of a Christian Philosophy.

This chapter is divided into headings that reveal Van Helmont's views of God, as well as the relationship between divinity and Nature and Man. The essence of the God-Nature relationship is advanced mainly in Van Helmont's natural philosophical treatises, chiefly 'The Birth or Originall of Forms' (chap. 21, 'Ortus formarum'), 'Nature is Ignorant of Contraries' (chap. 23, 'Natura contrariorum nescia'), and 'Of Time' (chap. 89, 'De Tempore'). The theological treatises, chiefly 'The Entrance of Death into Human Nature is the Grace of Virgins' (chap. 91, 'Introitus mortis in naturam humanam decus virginum'), 'A Position' (chap. 92, 'Thesis'), 'The Position is Demonstrated' (chap. 93, 'Demonstratur thesis'), 'The Understanding of Adam' (chap. 101, 'Intellectus Adamicus'), and the three-part treatise on Life ('Life' – 'Vita', 'Short Life' – 'Vita brevis' and 'Eternal Life' – 'Vita aeterna', chap. 110-113) illuminate the essence of God's relationship with Man.

4.1.1. Apophatic & Cataphatic Theology

For his understanding of God, Van Helmont draws on the tradition of both apophatic (negative) and cataphatic (positive) theology. As *The Westminster Dictionary of Christian Theology* states, cataphatic theology focuses on God's self-disclosing revelation, and demands faithfulness to revealed truths, while apophatic theology argues for the fundamental unknowability of God.³ The difference and foundation of each was perhaps most influentially described in Christian thought by Pseudo-Dionysius the Areopagite, whom Van Helmont read either directly or indirectly.⁴

³ *The Westminster Dictionary of Christian Theology*, ed. by Alan Richardson & John Bowden (Philadelphia, PA: Westminster Press, 1983), p. 167.

⁴ Pseudo-Dionysius, *Pseudo-Dionysius - Complete Works*, trans. by Colm Luibheid (New York, NY: Paulist Press, 1987), pp. 138-140. The Neoplatonists had drawn the outlines of the difference between negative and positive theology based on Plato's *Parmenides*, but Pseudo-Dionysius developed the dual concept in a Christian sense by emphasising its paradoxical expression; see Andrew Louth, *Denys the Areopagite* (London: Continuum Books, 1989), pp. 87-88. Van Helmont quotes from Pseudo-Dionysius directly in chap. 40, 'The Compleating or Perfecting of the Mind', p. 313, 'Mentis complementum', p. 252. However, the same quotation is present in Johann Tauler's sermons, see *The Sermons and Conferences of John Tauler of the Order of Preachers*, trans. by Rev. Walter Elliott (Washington, DC:

As part of his project of rooting his philosophy in orthodox Christian doctrine, Van Helmont draws on apophatic teaching to argue that ‘the knowledge which we have of God [should] be plainly negative, as it is not this or that, which may be conceived by the sense or minde’.⁵ He repeatedly refers to God’s essence as ‘incomprehensible’⁶ and ‘unutterable’ (ineffable).⁷ Christ’s Incarnation in the form of a human being is often described as ‘incomprehensible’.⁸ Van Helmont observes that the inability to understand divinity stems from Man’s position as created beings.⁹ By this, he sets a clear boundary between God and His Creation.

The apophatic approach had deep roots in Christian theology, being developed by Origen (184/5-253/4), the Cappadocian Fathers, St John of Damascus (c. 676-749) and Pseudo-Dionysius.¹⁰ As pointed out by Paul Rorem, it was particularly the latter who, as a supposed apostolic figure, had a major impact on Western medieval thought.¹¹ Taken up by John Scotus Erigena (c.815-877), apophatic theology was vigorously upheld in Western Christendom by such thinkers as Meister Eckhart, St Thomas Aquinas, Henry Suso, Johann Tauler, Nicholas of Cusa and the anonymous author of *Theologia Germanica*.¹² In the Renaissance and early modern period, apophatic thought was embraced by thinkers like Pico della Mirandola (1463-1494) and Johann Reuchlin (1455-1522), or mystics like St John of the Cross (1542-1591).¹³ The view was also

Apostolic Mission House, 1910), p. 7, so it is possible that Van Helmont could have borrowed the statement from indirect sources as well.

⁵ Van Helmont, chap. 3, ‘The Hunting or Searching Out of Sciences’, p. 25, ‘Venatio scientiarum’, p. 25: ‘Cognitio enim, quam de Deo habemus, traditionis, fidei, adeoque meriti est. Quamquam plane negative, quatenus non hoc, aut illud est, quod sensu, aut mente concipi potest’.

⁶ Van Helmont, chap. 24, ‘The Blas of Man’, p. 179, ‘Blas humanum’, p. 147; chap. 35, ‘Image of the Mind’, p. 267; ‘Imago mentis’, p. 216; chap. 40, ‘The Completing or Perfecting of the Mind’, p. 314, ‘Mentis complementum’, p. 254.

⁷ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 130, ‘Ortus formarum’, p. 105; chap. 35, ‘Image of the Mind’, p. 266, ‘Imago mentis’, p. 216; chap. 101, ‘The Understanding of Adam’, p. 713, ‘Intellectus Adamicus’, p. 562.

⁸ Van Helmont, chap. 111, ‘Life Eternal’, p. 751, ‘Vita aeterna’, p. 590. This seems a paraphrase of Pseudo-Dionysius, who said that ‘the sacred incarnation of Jesus for our sakes is something which cannot be enclosed in words nor grasped by the mind, not even by the leaders among the front ranks of angels’; ‘The Divine Names’ in *Pseudo-Dionysius - Complete Works*, pp. 47-133 (p. 65). Van Helmont also stated that ‘that mystery of love exceeds the understanding of the Angels’, in chap. 93, ‘The Position is Demonstrated’, p. 669, ‘Demonstratur thesis’, p. 530.

⁹ Van Helmont, chap. 89, ‘Of Time’, p. 638, ‘De Tempore’, p. 505.

¹⁰ See Vladimir Lossky, *The Mystical Theology of the Eastern Church* (Bucharest: Bonifaciu, 1998), particularly chapter 2 ‘Divine Darkness’.

¹¹ Paul Rorem, *Pseudo-Dionysius: A Commentary on the Texts* (Oxford: Oxford University Press, 1993), p. 214.

¹² Rorem, *Pseudo-Dionysius*, p. 225.

¹³ Giovanni Pico della Mirandola, *On the Dignity of Man, On Being and the One, Heptaplus*, trans. by Charles Glenn Wallis, Paul J.W. Miller and Douglas Carmichael (Cambridge: Hackett, 1965), pp. 49-50. For Johann Reuchlin see Wilhelm Schimdt-Biggemann, *Philosophia Perennis: Historical Outlines of Western Spirituality in Ancient, Medieval and Early Modern Thought* (Dordrecht: Springer, 2004), p. 96.

adopted by Paracelsian thinkers, including Jacob Boehme (1575-1624), Oswald Croll or Johann Siebmacher.¹⁴

Yet, as Pseudo-Dionysius had shown, apophatic theology must be accompanied by a cataphatic one, otherwise any knowledge of God is rendered impossible. Instead, in accordance with Christian belief, God manifests Himself outside of His ineffable essence. This is where the Divine Names of God come into play.

Pseudo-Dionysius pointed out that the One is the chief Name of God. The most profound mystery of this Name is expressed by God's paradoxical nature as One (unity) and three (multiplicity).¹⁵ Van Helmont whole-heartedly agrees with the Pseudo-Dionysian idea, emphasising God's oneness, or simplicity. God is the 'super-intellectual One'.¹⁶ Moreover, Van Helmont shows that 'Unity is a Figure of the Divinity; because from thence all Numbers are made, and again into the same are resolved.'¹⁷ Van Helmont adduces a philosophical testimony, that of Plato's *Parmenides* to argue that 'there are no accidents in God, [...] [nor is there] a duality, distinct from his Essence'.¹⁸

According to orthodox post-Nicene doctrine, the Unity of God manifests itself outside of his inaccessible Oneness by means of the Trinity. Van Helmont concurs with the orthodox vision, pointing out that God is the 'holy sacred Trinity' (*sacrosancta Trinitas*) or 'thrice glorious Trinity' (*tergloriosa Trinitas*).¹⁹ Although Van Helmont is following orthodox tradition in this, one must also consider that alchemical philosophers in general tended to be strong Trinitarians. In the spirit of St Augustine, they viewed the Trinity not only as the Essence of God, but as the expression of divinity in Nature. This tradition was present in the medieval Arnaldian texts, as well as in the *Book of the Holy Trinity*.²⁰ Paracelsus followed suit by postulating the existence of analogies of the Trinity throughout the Universe. As Paracelsus argued, 'all creatures are created in the number of the Trinity', and the most famous example he gave was that

¹⁴ For Boehme, Schimdt-Biggemann, *Philosophia Perennis*, pp. 117-119; Croll, 'Admonitory Preface', pp. 70, 215; 'The Waterstone of the Wise', p. 97. See also my analysis above on Croll and 'The Waterstone', chapter 3.

¹⁵ Pseudo-Dionysius, *Pseudo-Dionysius - Complete Works*, pp. 66-67.

¹⁶ Van Helmont, chap. 89, 'Of Time', p. 641, 'De Tempore', p. 508.

¹⁷ Van Helmont, chap. 89, 'Of Time', p. 636, 'De Tempore', p. 504: 'Unde ipsa unitas Divinitatis typus est: eo quod exin omnes fiant numeri, atque iterum in eandem resolvantur'.

¹⁸ Van Helmont, chap. 35, 'Image of the Mind', p. 268, 'Imago mentis', p. 217: 'in Deo non sint accidentia, nec sit dualitas, ab ejus esse distincta'. As already suggested in note 4, Plato's *Parmenides* was a watershed for speculation on the ideas of God as One and as many (triad / henad), influencing both Neoplatonic thinkers (Porphyry, Proclus) as well as Christian ones (the Cappadocian Fathers and St Dionysius); see Louth, *Denys the Areopagite*, pp.81-88 and Sarah K. Wear and John M. Dillon, *Dionysius the Areopagite and the Neoplatonist Tradition* (Aldershot: Asghate, 2007), pp. 31-36.

¹⁹ Van Helmont, chap 35, 'Image of the Mind', pp. 265, 266, 'Imago mentis', pp. 214, 215.

²⁰ Thorndike, *History of Magic and Experimental Science*, III, 75-76. Specifically on imagery, see also Barbara Obrist, *Les Débuts de l'Imagerie Alchimique* (Paris: Le Sycomore, 1982), pp. 67-68, 117-118.

of the triad of salt, sulphur and mercury.²¹ Most Paracelsians, including Du Chesne and Bostocke, upheld the association of the *tria prima* with the Trinity.²² The alchemical tenet of the presence of the Trinity in Nature was also a strong draw to natural philosophers seeking a Christian understanding of the universe.²³

Another important Name that Van Helmont uses in regards to God is 'Goodness' (*bonitas*).²⁴ This is essential, not individual goodness, as he is keen to specify: 'For God is Good as he is all Good, but not this or that Good'.²⁵ The divine attribute of 'goodness' is crucial to Van Helmont's speculation. Indeed, throughout the *Ortus medicinae*, God is often named 'Almighty goodness', 'glorious Goodness', 'voluntary goodness', 'divine goodness', 'unutterable goodness' or 'infinite goodness'.²⁶ By this Van Helmont seeks to affirm the fundamental benevolence of God, who creates a harmonious world and adorns it with His own image, Man. God's attribute ensures that Nature, his Creation, is also good. Van Helmont finds 'divine goodness to be actually, always, every where, and immediately President or chief Ruler' of all things.²⁷ It is particularly poignant in respect to human beings, and manifests itself in the form of 'free gift of God' (*donum Dei*). Unsurprisingly, the concept of divine goodness is intertwined with that of medical alchemy: one of the greatest gifts is the provision of efficacious medicine in nature, which must be extracted by alchemical means.²⁸

²¹ Weeks, *Paracelsus: Speculative Theory*, p. 118.

²² Debus, *The Chemical Philosophy*, pp. 166, 180.

²³ Janacek, *Alchemical Belief*, pp. 124-125.

²⁴ See for instance Van Helmont, chap. 93, 'A Position', p. 655, 'Thesis', p. 515, chap. 94, 'The Position is Demonstrated', p. 680, 'Demonstratur thesis', p. 538.

²⁵ Van Helmont, chap. 89, 'Of Time', p. 638, 'De Tempore', p. 505: 'Etenim bonum quatenus omne bonum, non autem hoc & istud est Deus: In quantum vero est hoc vel istud bonum, non est omne bonum; atque in tantum habet esse in creatis'. The idea of God as all Good had a long tradition in Christian thought as influenced by Platonic and Neoplatonic speculation; for St Augustine's formulation and its influence see John Bussanich, 'Goodness', in *Augustine throughout the Ages*, pp. 390-391; more generally, see entry 'Good', *Catholic Encyclopedia* <<http://www.catholic.org/encyclopedia/view.php?id=5257>> [accessed 7 February 2012]. It was also present in Scholastic thought through the writings of St Thomas Aquinas. For Aquinas's speculations on divine goodness, see particularly Eleonore Stump and Norman Kretzmann, 'Being and Goodness', in *Being and Goodness: The Concept of the Good in Metaphysics and Philosophical Theology*, ed. by Scott MacDonald (Ithaca, NY: Cornell University Press, 1991), pp. 98-128.

²⁶ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', pp. 311, 313, 'Mentis complementum', pp. 251, 253; chap. 79 'Butler', p. 590, 'Butler', p. 471; chap. 92, 'A Position', p. 652, 'Thesis', p. 515; chap. 93, 'The Position is Demonstrated', p. 680, 'Demonstratur thesis', p. 538; chap. 109, 'Life', p. 745, 'Vita', p. 586.

²⁷ Van Helmont, chap. 16, 'An Irregular Meteor', p. 89, 'Meteoron anomalum', p. 73: 'video divinam Bonitatem actualiter, semper, ubique & immediate praesidem'.

²⁸ Van Helmont constantly talks about divine goodness in chapter 79 'Butler', pp. 588-596, 'Butler', pp. 468-475 in relation with the Universal Medicine, *Drif*. See below, chap. 4.3 On Man.

4.1.2. Voluntarist Theology

Outstanding research by scholars Amos Funkenstein and Margaret Osler has brought to the fore the importance of voluntarist theology in the creation of the modern scientific mentality.²⁹ Voluntarist theology focusses on the absolute freedom of God and his will, which should not be restricted by any necessity.³⁰ While Funkenstein has concentrated on the contributions of the late medieval Nominalists, Osler has addressed this issue in respect to the French philosopher Pierre Gassendi.

However, no scholar until today has thought to analyse in depth the voluntarism of Gassendi's contemporary, Van Helmont.³¹ Yet Van Helmont's ideas of God, especially those of his later period, were permeated with voluntarism, which was a cornerstone of his approach to the natural world and Man. Indeed, his emphasis on God's freedom and divine will was part of his project to 'Christianise' philosophy. Greek philosophy was deterministic, with Nature and the gods being bound by necessity. Van Helmont must have been aware of the efforts of the early Fathers, such as St Gregory of Nyssa (c.335-c.395), St Augustine or Pseudo-Dionysius, whose emphasis on divine will and freedom were meant to counteract the influence of Greek philosophy, particularly Neoplatonism.³² In the Middle Ages, their example was followed by St Thomas Aquinas, who sought to eliminate the pagan doctrines of Aristotle by emphasising such points as God's will. Nevertheless, Osler finds him more of an 'intellectualist' than a 'voluntarist', implying that in the Aquinian worldview God had to obey a certain necessity; in this sense, Osler contrasts Aquinas with the much more voluntarist William of Ockham (1288-1347).³³

²⁹ Amos Funkenstein, *Theology and the Scientific Imagination from the Middle Ages to the Seventeenth Century* (Princeton: Princeton University Press, 1989), pp. 117-192. His focus has centred on Nominalist thought, which emphasised the omnipotence of God. The importance of voluntarism to science has been disputed recently by Peter Harrison, 'Voluntarism and Early Modern Science', *History of Science*, 40 (2002), 63-89; see John Henry's response, 'Voluntarist Theology at the Origins of Modern Science: A Response to Peter Harrison', 47 (2009), *History of Science*, 79-113. My purpose here is not to advance a view in regard to Van Helmont's position in science, but to recognise the voluntarism of his thought and its consequences.

³⁰ As Margaret Osler points out, 'the voluntarists equated God's absolute and ordained power so that his ordained power was absorbed into his absolute power, leaving nothing beyond his direct control', *Divine Will and Mechanical Philosophy: Gassendi and Descartes on Contingency and Necessity in the Created World* (Cambridge: Cambridge University Press, 1994), p. 135. The issue at stake was whether God had to obey or was encumbered by any limits.

³¹ Giglioni has talked about the 'voluntarist formulation' of the treatise on earthquakes, which he contrasts with *De magnetica*, p. 47. I do not agree with his opinion that *De Magnetica* is a 'youthful' work; it was in fact written in the middle period of Van Helmont's career, when he was at least 35 years old.

³² On this, see Lossky, *The Mystical Theology*, pp. 82-83; Louth, *Denys*, pp. 84-86.

³³ Osler, *Divine Will*, pp. 20-35.

Van Helmont's voluntarist view may not come across as clearly and eloquently as Gassendi's.³⁴ Again, this may hark back to the point already discussed about Van Helmont's reluctance to converse about God, at least in a systematic fashion.³⁵ Nevertheless, time and again Van Helmont emphasised God's omnipotence. He is a 'Creator of an infinite Power' who 'encloseth the Universe in his Fist, who can shake the Earth at his pleasure, and alone do marvellous things.'³⁶ God is often simply described as the 'Almighty' (*Omnipotens*) or the 'Power' (*Potestas*).³⁷ Other times, the power of God is expressed through such attributes as 'vast', 'immense' or 'infinite'.³⁸ His will is immersed into the very fabric of Nature: 'Divine beck or pleasure strongly reacheth all things from end to end.'³⁹

God's power is reflected in His absolute freedom. Indeed, Van Helmont emphasises, God 'had no need of a Creature' and could have chosen to remain hidden forever.⁴⁰ Hence Creation was God's 'good pleasure', just as His decision to make Man into the Image of Himself.⁴¹ Thus, He created all things 'for his own Glory'.⁴² Subsequently, He distributed His gifts as He saw fit, being constrained by no necessity.⁴³ Such affirmations make it unsurprising that Van Helmont upholds the right of God to effect miracles in Creation whenever He wishes, polemicising with Protestant theologians who taught the doctrine of cessation of miracles.⁴⁴

³⁴ Osler, *Divine Will*, pp. 52-55.

³⁵ One must not forget that Gassendi was a trained theologian, while Van Helmont was not.

³⁶ Van Helmont, chap. 89, 'Of Time', p. 637, 'De Tempore', p. 504; chap. 17, 'The Trembling of the Earth, or Earth-quake', p. 101, 'Terra tremor', p. 85.

³⁷ For instance, Van Helmont, chap. 3, 'The Hunting or Searching out of Sciences', p. 15, 'Venatio scientiarum', p. 17; chap. 8, 'The Elements', p. 48; 'Elementa', p. 42; chap. 11, 'The Essay of a Meteour', p. 64, 'Progymnasma meteori', p. 55; chap. 21, 'The Birth or Originall of Forms', p. 145, 'Ortus formarum', p. 118, and others.

³⁸ Van Helmont, chap. 92, 'A Position', pp. 652, 657, 'Thesis', pp. 515, 519; chap. 35, 'The Image of the Mind', p. 264, 'Imago mentis', p. 214; chap. 89, 'Of Time', p. 637, 'De Tempore', p. 504; chap. 15 'The Stars do necessitate, not incline, nor signifie of the life, the body, or fortunes of him that is born', p. 121, 'Astra necessitant, non inclinant, nec significant de vita, corpore, vel fortunatis nati', p. 98. Van Helmont may have been influenced in his definition of God as 'Infinite' from Nicholas of Cusa, whom he most certainly read. For the notion of 'infinite' in the theology in and prior to Nicholas of Cusa, see Etienne Gilson, *The Christian Philosophy in the Middle Ages* (London: Sheed and Ward, 1955), pp. 535-359. On Nicholas of Cusa's panentheism, see John W. Cooper, *Panentheism: The Other God of the Philosophers: from Plato to Present* (Grand Rapids, MI: Baker Academic, 2006), p. 53.

³⁹ Van Helmont, chap. 24, 'The Blas of Man', p. 176, 'Blas humanum', p. 144: 'Sed nutus divinus, a fine usque in finem, attinget omnia fortiter'.

⁴⁰ Van Helmont, chap. 89, 'Of Time', p. 637, 'De Tempore', p. 504.

⁴¹ Van Helmont, chap. 79, 'Butler', p. 590, 'Butler', p. 470: 'Deus [...] qui sua creata dotavit pro suo lubito'; chap. 109, 'Life', p. 745, 'Vita', p. 585; also chap. 89, 'Of Time', p. 637, 'De Tempore', p. 504.

⁴² Van Helmont, chap. 110, 'Short Life', p. 749, 'Vita brevis', p. 588; chap. 70, 'A Modern Pharmacopolion or Dispensatory', p. 458, 'Pharmacopolium ac Dispensatorium modernum', p. 367.

⁴³ Van Helmont, chap. 79, 'Butler', p. 590, 'Butler', p. 470.

⁴⁴ On this topic, see D. P. Walker, 'The Cessation of Miracles', in *Hermeticism and the Renaissance: Intellectual History and the Occult in Early Modern Europe*, ed. by Ingrid Merkel and Allen G. Debus (Washington, DC: Folger Books, 1988), pp. 111-124 (pp. 120-121).

Van Helmont goes even further with the affirmation of divine omnipotence, claiming that God does not need to be stationary but could move as He wishes, 'being altogether free, as well in his beck and motion, as in rest'.⁴⁵ In a strictly philosophical sense, the idea of a moving God makes little sense, as it would raise the question of what He could move against. One would suspect that Van Helmont's reply would be that God does not need to conform to our limited understanding. Instead, God is free and governed by no necessity such as that of being immobile.⁴⁶

Having advanced this unsettling possibility, Van Helmont wisely chooses to steer away from theological controversy. In fact, as he makes immediately clear, his argument is purely hypothetical, since he eventually comes to the traditional theological conclusion that God is indeed immobile, albeit out of his own volition.⁴⁷ Van Helmont's intellectual exercise here is to make a voluntarist argument in the late Scholastic tradition of the difference between *potentia Dei absoluta* and *potentia Dei ordinata*.⁴⁸ The former referred to what God could theoretically do before Creation, and the latter what he could do afterwards. This voluntarist doctrine allowed late medieval Scholastics to show that God is independent of any necessity, and sets His own limits. Indeed, as Van Helmont shows, God is immobile out of personal choice rather than the result of an externally imposed necessity.⁴⁹ Furthermore, the argument allows him to point out that the Word *Fiat*, which is ultimately Christ, was sent into the world by the immovable God to move all things.⁵⁰ Indeed, as Van Helmont likes to point out, the 'small' Word of God (*verbulum*) is so powerful that it could generate the universe out of nothing. Through the Word, God becomes immanent, being perpetually involved in the world.⁵¹ Indeed, Van Helmont expresses the view, similar to that of Gassendi, that the entire Universe depends on God.⁵²

Van Helmont's voluntarism has strong repercussions on the way he sees God's relationship with Nature and with Man. In the case of Nature, God's will stands

⁴⁵ Van Helmont, chap. 24, 'The Blas of Man', p. 176, 'Blas humanum', p. 144: 'Sed prorsus liber, tam suo nutu & motu, quam quiete, indifferenter, & aequè potenter movet cuncta'.

⁴⁶ Van Helmont, chap. 24, 'The Blas of Man', p. 176, 'Blas humanum', p. 144: 'Caeterum nec etiam toleranda est in Christiano blasphemia requires, Deum, de necessitate immobilem, ut alia movere possit.'

⁴⁷ Van Helmont, chap. 24, 'The Blas of Man', p. 176, 'Blas humanum', p. 144: 'Suum itaque esse immobile, non importat necessitate Scholis requisitam; sed merum gloriae suae beneplacitum.'

⁴⁸ This rather over-discussed topic, including its related relevancy to history of science, can be reviewed in Edward Grant, *Science and Religion: 400 BC – AD 1500, From Aristotle to Copernicus* (Baltimore, MA: Johns Hopkins University Press, 2006), pp. 54-90; Funkenstein, *Theology*, pp. 115-121.

⁴⁹ Van Helmont, chap. 24, 'The Blas of Man', p. 176; 'Blas humanum', p. 144.

⁵⁰ Van Helmont, chap. 24, 'The Blas of Man', p. 176; 'Blas humanum', p. 144: 'Suum enim (fiat) in naturam abiit, quae deinceps seipsam est movendo'.

⁵¹ See below, 4.1.3.1 for a discussion of Van Helmont's panentheism.

⁵² For Gassendi's views, see Osler, *Divine Will*, p. 57.

supreme; creatures have no free will and must implement the divine 'pleasure' (*nutus*).⁵³ The main mechanism by which God exercises His will in Nature is through the Ferments and the *semina*, concepts of great importance in Van Helmont's thought.⁵⁴ These ideas, ultimately drawn from St Augustine's concept of *rationes seminales*, are instrumental in proving God's providence in Nature: they represent latent forces of generation that manifest His will in history. The *semina* carry within them the final cause of each being, a *telos* that is created by God.⁵⁵ Hence the *semina* 'flow' (*fluant*) in the direction impressed on them by the divine will at the beginning of time.⁵⁶

Thus, we see that for Van Helmont voluntarist theology is extended in Nature to become a voluntarist natural philosophy. Van Helmont's voluntarism shares a great deal with Aristotelian teleology,⁵⁷ except that in his case the ideas are clearly drawn from Christian thought.⁵⁸ Everything in Nature is in fact moved by the will of God: hence even insensitive beings are pushed onwards 'as it were by a certain will and pleasure or precept of nature, and have their own natural necessities, and ends'.⁵⁹

Indeed, an important outcome of Van Helmont's voluntarist understanding of God is that he accepts the fact that the creation behaves in peculiar ways as part of an inscrutable and undecipherable divine plan. Hence he is always concerned with what he calls the *quidditas*, the quiddity or specificity of each body and phenomenon. This concept is highly important in framing Van Helmont's thought, being essential in his programme of empirical research. Thus, for Van Helmont it is important to understand nature as what it is, outside of human preconceptions and rational inquiry. Instead, Christian philosophers must try to fathom the workings of nature as part of the divine plan, and the best way to do so is by the 'art of the fire', alchemy.⁶⁰

By comparison to Nature, God endowed Man with free will (*voluntas humana* or *voluntas viri*), in order to better express the divine nature. It was this free will that

⁵³ Van Helmont uses the term *nutus* very often to refer to God's omnipotence.

⁵⁴ See below, chap 4.2 On Nature.

⁵⁵ Hence we will see in chap 4.2 Van Helmont's insistence on the final cause being the same as the efficient cause.

⁵⁶ Van Helmont, chap 21, 'The Birth or Originall of Forms', p. 145, 'Ortus formarum', p. 118.

⁵⁷ On Aristotelian teleology, see John Cooper, 'Aristotle on Natural Teleology', in *Language and Logos*, ed. by Malcolm Schofield and Martha Nussbaum (Cambridge: Cambridge University Press, 1981), pp. 197-222; Susan Sauve Meyer, 'Aristotle, Teleology and Reduction', *The Philosophical Review*, 101:4 (1992), 791-825.

⁵⁸ Teleology was, of course, a belief strongly embraced by Christian thought. See Thomas Kennedy, 'Teleology', in *The Encyclopedia of Christianity*, 5 vols (Grand Rapids, MI: Eerdmans & Brill, 2008), V, 326-328.

⁵⁹ Van Helmont, chap. 24, 'The Blas of Man', p. 177, 'Blas humanum', p. 145.

⁶⁰ Van Helmont, chap. 18 'The Fiction of Elementary Complexions and Mixtures', p. 105, 'Complexionum atque mitionum', p. 85; Van Helmont, chap. 61, 'Of Flatus's or Windie Blasts in the Body', p. 418, 'De flatibus', p. 336.

eventually caused the Fall, although God cannot be held responsible for it. Because of the role of free will in the demise of Man, Van Helmont did not have a positive view of it: 'there is no power more destructive to man than free will'.⁶¹ Indeed, he affirmed that the mystical path required the abandonment of the will, and that in Paradise human volition will be obliterated.⁶²

Van Helmont's voluntarist discourse stems from both the New Testament and St Augustine, who had emphasised the role of will.⁶³ At the same time, he was probably influenced by the Nominalists, medieval mysticism and humanist thought.⁶⁴ An emphasis on God's will was also part of a strong tradition in alchemical philosophy, such as the work of Pseudo-Lull, or later by Croll.⁶⁵ In medieval alchemy, Geber argued that 'Our Art is reserved in the Divine Will of God, and is given to, or withheld from whom he will'.⁶⁶

4.1.3. God in Nature

4.1.3.1. Panentheism

Van Helmont's fundamental view in regards to the presence of God in Nature is panentheistic, postulating the simultaneous transcendence and immanence of God in respect to His Creation. Such an idea is developed in dialogue with both the orthodox Christian tradition and the Paracelsian-alchemical current he overtly adhered to.

In expounding panentheistic ideas about God, Van Helmont was positioning himself as an orthodox Christian thinker, albeit one that drew particularly on the patristic tradition influenced by Neoplatonic thought.⁶⁷ It was in consideration of such speculation that William Inge considered panentheism 'an integral part of Christian

⁶¹ Van Helmont, chap. 35, 'Image of the Mind', p. 267, 'Imago mentis', p. 217: 'nulla est homini potestas pernicio, voluntate libera, quippe quae quod omne parit dissidium, inter Deum & hominem'.

⁶² Van Helmont, chap. 35, 'Image of the Mind', p. 267, 'Imago mentis', p. 217.

⁶³ On St Augustine's concept of will, see John M. Rist, *Augustine: Ancient Thought Baptized* (Cambridge: Cambridge University Press, 1995), pp. 148-202.

⁶⁴ Trinkaus has shown the similarity between humanist thought and Nominalism, even though the Renaissance philosophers were generally realists; see Trinkaus, *In Our Image*, I, 60.

⁶⁵ 'Pseudo-Lulli Theorica & Practica', p. 6: 'Hanc naturam supremus deus primo de nihilo creavit sua pura liberalitate & voluntate'; Croll, 'Admonitory Preface', chap. 6, p. 186.

⁶⁶ Qtd. in Holmyard, *Alchemy*, p. 158.

⁶⁷ As pointed out in chapter 1, Heinecke deemed Van Helmont's philosophy of nature as having 'pantheist' tendencies and claimed that his mysticism tries to 'compensate for the threatening consequences of the premises inherent in his philosophy of nature', Heinecke, 'The Mysticism and Science', p. 70. I think that this chapter amply shows that Van Helmont steers away from pantheist associations by clearly pointing out God's transcendence and apophatic quality, and it is hence hard to accuse him of pantheist thought. See also my criticism of Heinecke's argument in chapter 1.

philosophy, and indeed of all rational theology'.⁶⁸ Although panentheist thought was hence present in most if not all orthodox thinkers, it figured prominently in the work of the Greek Fathers, particularly pseudo-Dionysius and St Maximus the Confessor, and promoted chiefly by John Scotus Eriugena, Meister Eckhart, Nicholas of Cusa, before becoming an important tenet of many Paracelsian thinkers.⁶⁹

By drawing on orthodox sources, Van Helmont was clearly attempting to free himself from possible accusations of pantheism. As an alchemical philosopher, he was aware of the fact that Paracelsus – and implicitly his followers – had been attacked precisely for espousing unorthodox views of God. Thomas Erastus (1524-1583) had accused Paracelsus of postulating the eternity of the world and denying the Christian doctrine of *Creatio ex nihilo*.⁷⁰ His attack was based mainly on his reading of the enigmatic (and possibly spurious) *Philosophia ad Atheniensis*, because in *Labyrinthus medicorum errantium*, Paracelsus had stated clearly that 'God made all things out of nothing'.⁷¹

Toward the beginning of the seventeenth century, an increasing number of Paracelsian supporters were eager to dispel the idea that the new alchemical philosophy was at odds with the Christian faith. For instance, Richard Bostocke (fl. 1585) claimed that Paracelsus had been perfectly orthodox in asserting an uncreated *Mysterium magnum*, as this was nothing other than Christ as the Word and Wisdom of God.⁷² In this sense, he maintained, *Creatio ex nihilo* was not denied.⁷³ Similarly, Van Helmont's contemporary Jacob Boehme (1575-1624) expressed the view that, while Creation could only occur out of God as the Abyss (*Ungrund*), the world was not divine, being created by the Word of God, the *Fiat*.⁷⁴

There is no evidence that Van Helmont read either Bostocke or Boehme; however, he certainly perused the works of Du Chesne and Croll.⁷⁵ The latter were eager to affirm their firm belief in *Creatio ex nihilo* and the transcendence of God.

⁶⁸ William Inge, *Christian Mysticism* (London: Methuen, 1899), p. 121.

⁶⁹ Cooper, *Panentheism*, pp. 39-63.

⁷⁰ Pagel, *Paracelsus*, p. 315.

⁷¹ Walter Pagel, 'Prima Materia of Paracelsus', *Ambix*, 9:3 (1961), 117-135 (pp. 124-125); Paracelsus, 'Labyrinthus Medicorum', in *Hermetic and Alchemical Writings of Paracelsus*, ed. by Arthur Edward Waite, 2 vols (Berkeley, CA: Shambala, 1976), II, 165-169 (p. 165).

⁷² Richard Bostocke, *The Difference between the Auncient Physicke...and the Latter Phisicke* (London: Robert Walley, 1585), chap. 21 (there are no page numbers).

⁷³ Bostocke, *The Difference*, chap. 21.

⁷⁴ Jacob Boehme, *Mysterium Magnum, or an Exposition of the First Book of Moses called Genesis* (London: Lodowick Lloyd, 1656), p. 23.

⁷⁵ See above, chapter 3.

Duchesne stated that all things have their beginning in God.⁷⁶ Croll believed that ‘all things in the first Creation were produced out of the Divine Nothing’.⁷⁷

Van Helmont generally adopts a view similar to that of Croll, emphasising God as primarily the Creator of all things *ex nihilo*. By performing the ‘Miracle’ of Creation, God becomes the perpetual ‘Beginning and Fountain’ or ‘the invisible Fountain’ of Nature.⁷⁸ God is, in Van Helmont’s opinion, ‘the perpetuall parent of things, the framer of nature, and its governour by creating’.⁷⁹ He is also described as ‘Order, Integrity, Essence, the Father of Lights, and total, Independent, absolute, abstracted cause of all things’.⁸⁰

God’s bountiful goodness is expressed outwardly in Nature through creative Love. His creative love spreads throughout Nature and makes it unified and harmonious.⁸¹ Van Helmont emphasises the idea of the concord of Nature, which ultimately reveals its divine roots. In his fundamental role of ‘Lover of Peace’,⁸² God builds a Nature that is ‘ignorant of or knows no contraries’.⁸³ Thus, God is ‘the fountainous Beginning of love, concord and peace’.⁸⁴

Van Helmont’s belief in divine transcendence is accompanied with that of the immanence of God, or some manifestation of Him, in Creation. The immanence of God (or his ubiquity) was one of the chief doctrines of Christian theology, even though it was unclear how this omnipresence was to be understood.⁸⁵ This, too, was in line with Paracelsian thought. As already mentioned, Paracelsus had posited the existence of divine spiritual forces in Creation, variously referred to as the Arcana, Astra, Mysteries or Magnalia.⁸⁶ He also affirmed that God ‘alone is in all things [...] He is all things’.⁸⁷

⁷⁶ Du Chesne, *The Practise of Chymicall and Hermeticall Physicke*, chap. 2.

⁷⁷ Croll, ‘Admonitory Preface’, p. 70.

⁷⁸ Van Helmont, *Opuscula medica inaudita*, ‘A Treatise of the Disease of the Stone’, chap. 1, p. 830, ‘Tractatus de Lithiasi’, p. 651; chap. 44, ‘A Treatise of the Soul’, p. 342, ‘Tractatus de Anima’, p. 278; chap. 46, ‘Of the Immortality of our Soul’, pp. 346, 350: God is ‘Eternal Beginning, which in it self is Life, Light eternal, Infinite, not to be altered or extinguished’, ‘De animae nostrae immortalitate’, pp. 280, 284: ‘sed ab initio aliquot aeterno, quod in se est vita lux aeterna, infinita, non alterabilis aut extinguiibilis’.

⁷⁹ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 130, ‘Ortus formarum’, p. 105.

⁸⁰ Van Helmont, chap. 46, ‘Of the Immortality of the Soul’, p. 350, ‘De animae nostrae immortalitate’, p. 284: ‘ordo, integritas, essentia, Pater luminum, rerumque omnium causa totalis, independens, absoluta, abstracta.’

⁸¹ Van Helmont, chap. 23, ‘Nature is Ignorant of Contraries’, pp. 160, 168, ‘Natura contrariorum nescia’, pp. 131, 137.

⁸² Van Helmont, chap. 23, ‘Nature is Ignorant of Contraries’, p. 165, ‘Natura contrariorum nescia’, p. 135.

⁸³ Van Helmont, chap. 23, ‘Nature is Ignorant of Contraries’, p. 165, ‘Natura contrariorum nescia’, p. 135.

⁸⁴ Van Helmont, chap. 23, ‘Nature is Ignorant of Contraries’, p. 169, ‘Natura contrariorum nescia’, p. 138.

⁸⁵ Amos Funkenstein shows that Christian theologians were always attempting to balance this concept against pantheistic connotations as well as theories of absolute transcendence; *Theology*, pp. 49-55.

⁸⁶ Pagel, *Paracelsus*, p. 54; see also Weeks, *Paracelsus: Speculative Theory*, p. 65 in reference to Paracelsus’s ‘Opus Paramirum’.

Petrus Severinus preferred to talk about the divine Essence of Nature, while Bostocke described the uncreated virtues as being propagated from the divine wisdom.⁸⁸ Du Chesne upheld the Platonic idea of the soul of the world enlivening the material world, and this he equated with Heaven (*coelum*).⁸⁹ By comparison, Croll de-emphasised such divine intermediaries to affirm that God Himself 'is all, and onely life of all, and in all, yet variously sprouting forth according to the subject into which it flows.'⁹⁰

Van Helmont concurs with this view of the direct immanence of God in matter. Intermediaries such as the soul of the world or Heaven appeared to him as remnants of ancient, pagan philosophy. Indeed, Van Helmont believes that God continuously participates in the existence of the Universe.⁹¹ He is the 'Creator of all Soules', 'the Giver of Life', 'the Prince of Life' and 'the very Life itself.'⁹² To support his belief, Van Helmont paraphrases St Paul to state that 'in God we live, are, and are moved, in very deed and act.'⁹³ Hence, all beings 'depend originally, totally, to wit, absolutely, and intimately on God, as on the Beginning and End of its Duration'.⁹⁴

Given such belief, it is unsurprising that Van Helmont appeals on several occasions to another of St Paul's expressions, namely that God is 'All in All' (*omnia in omnibus*).⁹⁵ Due to its perceived support of divine immanence, this was a popular expression amongst the alchemical philosophers of the age, including Croll and Du Chesne.⁹⁶ At the same time, Van Helmont is keen to point out that God is not bound to Nature, rather that God freely chooses to be continuously present in the universe working 'the perfection of all things', daily creating and ruling nature.⁹⁷ In fact, to press his point, Van Helmont emphasises God's 'jealousy' as a key attribute; the Creator, he

⁸⁷ Paracelsus, 'Book of Minerals', in *Hermetic And Alchemical Writings of Paracelsus*, ed. by Arthur Edward Waite, I, 239.

⁸⁸ Severinus, *Idea medicinae philosophicae*, p. 92; Bostocke, *The Difference*, chap. 21.

⁸⁹ Duchesne, *The Practise of Chymicall and Hermeticall Physicke*, chap. 2.

⁹⁰ Croll, 'Admonitory Preface', p.83.

⁹¹ Van Helmont, chap. 91, 'The Enterance of Death into Human Nature is the Grace of Virgins', p. 648, 'Mortis introitus in naturam humanam decus virginum', p. 513.

⁹² Van Helmont, chap. 93, 'The Position is Demonstrated', pp. 661, 662, 'Demonstratur thesis', pp. 522-523.

⁹³ Van Helmont, chap. 89, 'Of Time', p. 638, 'De Tempore', p. 505. This is drawn from St Paul's sermon in Athens, Acts 17:28.

⁹⁴ Van Helmont, chap. 89, 'Of Time', p. 637, 'De Tempore', p. 504: 'Nam si creatura non dependeres originaliter, totaliter, absolute scilicet & intime a Deo, tanquam a durationis suae initio & fine'.

⁹⁵ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 130, 'Ortus formarum', p. 105; also chap. 110, 'Short Life', p. 749, 'Vita brevis', p. 588; chap. 112, 'On the Magnetic Cure of Wounds', p. 785, 'De magnetica vulnerum curatione', p. 614. God as 'All in All' (*Omnia in omnibus*) is drawn from St Paul, 1 Corinthians 15:28.

⁹⁶ Duchesne, *The Practise of Chymicall and Hermeticall Physicke*, chap. 3; also Croll, 'Admonitory Preface', pp. 83, 85.

⁹⁷ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 130, 'Ortus formarum', p. 105: 'quoque cunctorum...perfectionem'; Van Helmont, chap. 22, 'Magnum Oportet, that is, it is a thing of great necessity or concernment', p. 157, 'Magnum oportet', p. 128.

asserts in a statement closely resembling Croll's, 'will give his own honour of Creator unto no Creature'.⁹⁸

Van Helmont's understanding of divine immanence is complex, as he drew upon traditional Scholastic themes as well as more idiosyncratic traditions. For instance, he affirmed God's ubiquity,⁹⁹ a *topos* that had a long tradition amongst the Scholastics and had even become Lutheran dogma in regards to Christ's body.¹⁰⁰ Like other orthodox thinkers, Van Helmont did not understand ubiquity in a material sense but in the sense of God being essentially present in all places and in all time.¹⁰¹ At the same time, Van Helmont betrayed traces of the Nominalist association between God, space and infinity, a theory Funkenstein referred to as 'the body of God'.¹⁰²

Van Helmont also viewed God as being immanent in the traditional sense of being the cause of all things (*causa essendi*), as Thomas Aquinas and other Scholastics affirmed.¹⁰³ This tradition allowed Van Helmont to state the following paradox: 'God is the true, perfect, and actual essence of all things' but at the same time 'the essence which things have, belongs to the being, or the creature itself: but is not God'.¹⁰⁴ Hence God is essence in an abstract sense, but the individual essence is a gift of God.¹⁰⁵

Besides these mainstream formulations, Van Helmont also developed the non-Scholastic theory of the immanence of God in Creation as 'form-giver'. The Flemish philosopher seemed unsatisfied with the Scholastic views of God's ubiquity and presence, and sought a starker formulation for it. Affirming that 'life in the abstract is the incomprehensible God himself,' and connecting life with form,¹⁰⁶ Van Helmont

⁹⁸ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 130, 'Ortus formarum', p. 105; chap. 93, 'The Position is Demonstrated', p. 662, 'Demonstratur thesis', p. 523. Croll had stated that God, 'who alone to be praised and blessed in all, and over all, will not give his Honour to another'; Croll, 'Admonitory Preface', p. 89.

⁹⁹ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 130, 'Ortus formarum', p. 105: 'Deum esse & hodie rerum immediatum principium, ubique praesens, operans omnem omnium perfectionem'.

¹⁰⁰ For the Scholastic formulation of the doctrine of ubiquity, see Funkenstein, *Theology*, pp. 50- 56. For Luther's formulation, see *ibid*, pp. 71-72.

¹⁰¹ For a good discussion of Scholastic distinctions, see also Funkenstein, *Theology*, pp. 54-55. He observes that late Scholastics de-emphasised ubiquity 'by essence or presence' from that 'by power'. In this sense, Van Helmont seems more traditional in approach than the Nominalists.

¹⁰² Funkenstein, *Theology*, pp. 61-63. But Van Helmont would not go as far as Newton as to call space the *sensorium Dei*.

¹⁰³ Funkenstein, *Theology*, p. 50.

¹⁰⁴ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 132, 'Ortus formarum', p. 107: 'Suppono itaque Deum esse veram, perfectam, & actualiter omnem omnium essentiam'; 'Esse autem quod res habent, est entis, sive ipsius creaturae: Non autem Deus'.

¹⁰⁵ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 132, 'Ortus formarum', p. 107: 'Licet enim pro pignore, dono, feudo, vel talent, ens habeat suum esse, a Deo, dependenter: est tamen illis ex creatione proprium'.

¹⁰⁶ Van Helmont, chap. 24, 'The Blas of Man', p. 179, 'Blas humanum', p. 147; see also chap 89, 'Of Time, p. 637, 'De Tempore', p. 504: God is 'the immediate Life of things' ('immediata vita rerum'). This is in line with standard Scholastic philosophy; based on Aristotle, St Thomas Aquinas had affirmed that God is *viventissimus*, 'most alive'; see Denis Des Chene, *Life's Form: Late Aristotelian Conceptions of*

argued that it is bestowed directly by God on each individual object.¹⁰⁷ Hence all things are alive to some degree as no creature can actually exist without form.¹⁰⁸ At the same time, in viewing God as the apex of forms and life in its highest degree, Van Helmont is indebted to Thomistic theology.¹⁰⁹

Van Helmont's vision is also remarkable through its tendency of creating material analogies for things that cannot possibly be sensed. What Aristotle and St Thomas called 'form', he expresses in visual terms as 'light'. Of course, he does not mean actual light, but something superior. In this sense, he often uses the expression of God as 'Father of Lights', borrowed from James 1:17, to express the idea that God is the maker of all vital forms.¹¹⁰ Hence Van Helmont calls God 'the infinite, substantial, and thrice glorious light'.¹¹¹

The idea of God as 'form-giver' (*dator formarum*) had been introduced into medieval Christian thought by the Neoplatonic speculations of Avicenna (980-1037) on the form-giving planetary intelligence he called '*Cholcodea*'.¹¹² Associated with Plato by Albertus Magnus, Avicenna's theory received a lukewarm reception in Scholastic circles. The concept implied the dissociation of form and matter, which went against the spirit of Aristotle's hylomorphism; hence Scholastics preferred to maintain the Greek philosopher's views. Thus, it is interesting that after an initially positive reception with the thirteenth-century Franciscan theologians Jean de la Rochelle (d. 1245) and Alexander of Hales (c.1185-1245), who associated Avicenna's *dator formarum* with God,¹¹³ Albertus Magnus took an ambiguous position towards this idea and Thomas Aquinas rejected it.¹¹⁴

the Soul (London: Cornell University Press, 2000), pp. 63, 65. Des Chene also notes that late Scholastics, such as Suarez and Arriaga, moved away from this association between life and God, and may have influenced Descartes in his formulation of the animal-machine concepts, p. 65.

¹⁰⁷ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 662, 'Demonstratur thesis', p. 523.

¹⁰⁸ See further on this in 4.2. Nature.

¹⁰⁹ Alexander W. Hall, *Thomas Aquinas and John Duns Scotus: Natural Theology in the High Middle Ages* (King's Lynn: Continuum, 2007), p. 50.

¹¹⁰ See below, chapter 4.2 On Nature.

¹¹¹ Van Helmont, chap 21, 'The Birth or Originall of Forms', p. 145; 'Ortus formarum', p. 118: 'lumen infinitum, substantiale, ter gloriosus'. It must be noted that Van Helmont sometimes uses the term 'lux' and sometimes 'lumen' for light, but does not clearly distinguish between the two.

¹¹² Dag Nikolaus Hasse, 'Avicenna's "Giver of Forms" in Latin Philosophy, especially in the Works of Albertus Magnus', in *The Arabic, Hebrew and Latin Reception of Avicenna's Metaphysics*, ed. by Dag Nikolaus Hasse and Amos Bertolacci (Berlin: Walter de Gruyter, 2012), pp. 225-251; Antonio Bruers, 'La "Colcodea" d'Avicenna e T. Campanella', in Tommaso Campanella, *Del senso della cose e della magia* (Bari: Laterza & Figli, 1925), pp. 339-341.

¹¹³ Dag Nikolaus Hasse, 'Plato Arabico-Latinus', in *The Platonic Tradition in the Middle Ages: A Doxographic Approach*, ed. by Stephen Gersh and J.F.M. Hoenen (Berlin: Walter de Gruyter, 2002), pp. 31-66 (p. 43).

¹¹⁴ Hasse, 'Avicenna's "Giver of Forms"', pp. 238-244.

At the same time, Albertus's vagueness on the subject helped ensure the survival of the theory. In his more supportive statements, Albertus Magnus had equated the *dator formarum* with St Augustine's Intelligible Sun and the Father of Lights, an association which we find in Van Helmont as well.¹¹⁵ The late Middle Ages and Renaissance saw the further revival of the theory: John Buridan (c.1295-1358) supported the idea, as he believed that forms cannot have a material origin,¹¹⁶ while Ficino and Tiberio Russiliano (fl 1519) concurred with this view.¹¹⁷ It was through such filiation that Van Helmont discovered and embraced this rather non-traditional theory.

Expanding on his theory that equated form and life with God, Van Helmont concluded that, being their 'life', the divine is also the 'essence' of all things. Van Helmont expressly calls God 'the True, Immediate, and the most Very Essence of all things, from which the Being of things doth issue, and depend unseparably in nature'.¹¹⁸ In this sense, Van Helmont's view of God emphasises his 'immediacy' within creatures. Thus, God is 'intimately present with every one of us'.¹¹⁹

This theory of God as direct bestower of form and life allows Van Helmont to develop a vision of the Universe made up of juxtaposed matter and form. According to Van Helmont, both form and matter are created by God, and originate *ex nihilo*. Matter and form are separate in a dualist manner and juxtaposed at a precise moment in the process of generation.¹²⁰

How does Van Helmont explain the paradox of a God described as transcendent, untouchable, incomprehensible, and yet immanent in each and every creature? In Van Helmont's view, God begets Creation out of His own Essence.¹²¹ Hence all creatures, in virtue of their creation, are not God; yet in their innermost self share the Essence of God, which is bestowed on them as a gift (*donum*). This Essence of God, which Van Helmont refers to as Life, or as Truth, is distributed in individual lives which are transitory and unsubstantial. Hence there is a degree to which all creatures participate in God by essence. As Van Helmont strives to explain, the 'Super-intellectual One, Eternal, Infinite, Intimate Being in every Thing, yet in no wise Mixed, Concluded,

¹¹⁵ Gilson, *Christian Philosophy in the Middle Ages*, p. 431.

¹¹⁶ Hasse, 'Avicenna's "Giver of Forms"', p. 236.

¹¹⁷ Hasse, 'Avicenna's "Giver of Forms"', p. 236.

¹¹⁸ Van Helmont, chap. 55, 'That the Three First Principles of the *Chymists*', p. 414; 'Tria prima chymicorum', p. 333, 'vera, immediate, ipsissimaque essential, a qua esse rerum defluit, & dependet, inseparabile in natura'.

¹¹⁹ Van Helmont, chap. 36, 'A Mad or Foolish Idea', p. 274, 'Demens idea', p. 222.

¹²⁰ For more on this dualism, see 4.2. On Nature.

¹²¹ St John of Damascus expressed this *creatio ex nihilo* as God bringing forth Creation outside of Himself, infinitely separated 'not by place but by nature' (*ousia*). See Lossky, *The Mystical Theology*, p. 82.

Apprehensible, or Detainable therein, is the Thingliness (*quidditas*) or Essence of things.’¹²²

Perhaps the most edifying example that illustrates Van Helmont’s concepts is that of Time, which he treats at length.¹²³ Time, he says, is a ‘Being’ which is directly emanated from Eternity (‘the issuing Splendour of Eternity’).¹²⁴ It is an essential being which, Van Helmont makes clear, is directly dependent on God as a type of emanation, or divine energy that cannot subsist without Him.¹²⁵ Yet Time cannot exist within creatures; for this purpose Duration is created as the apportioned Time for each individual. This Duration, then, is hypostatic Time (and by extension God) as implanted in creatures, ‘more intimate unto things than things are unto themselves’.¹²⁶

4.1.3.2. *Christ’s Role in Creation*

In line with his project of constructing a truly Christian philosophy, Van Helmont adopts a Christocentric view of Creation. His affirmation of the role of Christ in the Universe draws upon the traditions of Christ as the Word, the Cosmic Christ, and Christ as Wisdom.¹²⁷ He emphasises the immanence of God through Christ in Nature, and portrays Christ as essential mediator between a transcendental God and His Creation.

Such Christological view was supported by other alchemical philosophies of his time. I have already highlighted the strong motif of Christ as the Philosophers’ Stone, present in medieval alchemy as well as Paracelsianism.¹²⁸ Another related doctrine upheld by the Paracelsians was the direct participation of the divine Word in the creation and maintenance of the Universe. Paracelsus had set the tone by laying a particular emphasis on the idea of the Word, arguing in ‘Opus Paramirum’ that the

¹²² Van Helmont, chap. 89, ‘Of Time’, p. 641, ‘De Tempore’, p. 508: ‘...superintellectual unum, aeternum, infinitum, intimum cuilibet rei, nullatenus tamen permistum, conclusum, apprehensibile, aut detentibile; In quo omnis rerum est quidditas, cui sit laus & Gloria in sui aeternitate!’

¹²³ Van Helmont, chap. 89, ‘Of Time’, pp. 634-644, ‘De Tempore’, pp. 502-511. The classical commentary on this treatise pertains to Pagel, ‘J.B. Van Helmont, De Tempore’, pp. 346-417. However, the fact that Pagel is mostly interested in establishing the treatise as an original contribution to biology makes him less interested in differentiating Time from Duration (as hypostatic Time).

¹²⁴ Van Helmont, chap. 89, ‘Of Time’, p. 641, ‘De Tempore’, p. 508: ‘aeternitatis emanantem splendorem’.

¹²⁵ Van Helmont, chap. 89, ‘Of Time’, p. 641, ‘De Tempore’, p. 508: ‘the which Splendour doth no more subsist without Eternity than the Splendour of light without the Light’; ‘...splendorem, quique citra vel extra aeternitatem non magis subsistit, quam splendour lucis citra lucem’.

¹²⁶ Ibid. Helene Weiss has pointed out that Van Helmont’s speculation on the nature of Time was prompted by Plotinus’s critique of Aristotle and Plato’s views; ‘Notes on the Greek Ideas Referred to in Van Helmont: De Tempore’, *Isis* 33:5 (1942), 624.

¹²⁷ John 1:1-3. For the concept of Logos in the Johannine writings, see also Masanobu Endo, *Creation and Christology: A Study on the Johannine Prologue in the Light of Early Jewish Creation Accounts* (Tübingen: Mohr Siebeck, 2002), pp. 206-237.

¹²⁸ See above, chapter 3.

Word created all the *Semina* by separating all things from the primordial *yliaster*.¹²⁹ Moreover, he affirmed that the primordial Word *Fiat* was the prime matter of all things.¹³⁰ Commenting upon Paracelsus, Bostocke expressed the view that Christ, as the divine Word *Fiat* and the Wisdom of God, was the spiritual *Mysterium magnum* out of which the entire universe was made.¹³¹ For Adam Haslmayr the divine Word was the centre and life of all things, and ‘all creatures [...] the living incarnate word FIAT of God’.¹³² A more direct source of inspiration for Van Helmont was the Logos theory of Croll, who emphasised the role of the Incarnate Word as the source of creation.¹³³ The Word in the Paracelsian sense acted as a principle of unification of Nature, a teleological principle and a guarantee of the presence of God in matter.

Such ideas about Christ’s role in Nature are articulated and developed by Van Helmont by reference to the New Testament, particularly the Gospel of St John and St Paul. For instance, the Flemish thinker expresses the view that Christ is the ruler of the world by paraphrasing John: ‘Lord Jesus is after an incomprehensible manner, the Light, Life, Beginning, Way, Truth, and the All of all Things’.¹³⁴ Van Helmont also asserts that Christ is ‘alone administering the Monarchy of Heaven and Earth’.¹³⁵ Hence ‘Christ, the Lord of the Universe, is alone the life and parent of all things’.¹³⁶

Such statements point to the fact that Van Helmont displays a spirituality that emphasises a vision of the ‘cosmic Christ’. Such a view harks back to the topos of Christ Pantocrator, the Lord of all things, which was eloquently expressed by St Paul in Colossians 1:13-23.¹³⁷ According to St Paul, in him ‘all things in heaven and on earth were created [...] He himself is before all things, and in him all things hold together’.¹³⁸ The concept of divine Christ-Anthropos as creator, maintainer and saviour was

¹²⁹ Paracelsus, ‘Opus Paramirum’, in *Paracelsus: Essential Theoretical Writings*, ed. and trans. by Andrew Weeks, Aries Book Series 5 (Leiden: Brill, 2007), I, ii, 323.

¹³⁰ Paracelsus, ‘Opus Paramirum’, in *Paracelsus: Essential Theoretical Writings*, I, ii, 323

¹³¹ Bostocke, *The Difference*, chap. 21.

¹³² Carlos Gilly, ‘*Theophrastia sancta*’ pp.175-176.

¹³³ Croll, ‘Admonitory Preface’, particularly pp. 30-34, 83-87.

¹³⁴ Van Helmont, chap. 113, ‘The Tabernacle in the Sun’, p. 796, ‘In Sole tabernaculum’ p. 622, ‘Quia Dominus Jesus est incomprehensibili modo lux, vita, initium, via, veritas, & totum omnium’.

¹³⁵ Van Helmont, chap. 82, ‘Of Things Conceived, or Conceptions’, p. 613, ‘De conceptis’, p. 487: ‘Mitissime Jesu...jam coeli terraeque Monarchatum solus administrans...’

¹³⁶ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 147, ‘Ortus formarum’, p. 120: ‘Sed Christus, Dominus Universi, solus est vita omnium rerum, & parens; nec hunc honorem dabit ulli creaturae’.

¹³⁷ St Paul himself drew on a rich heavenly Anthropos literature which had Jewish, Gnostic, Hermetic and Greek expressions. For a review of the mythos, a useful review is given by Dragos Giulea, ‘Noetic Paschal Anthropos: Genesis 1:27 and the Theology of the Divine Image in Early Paschal Literature’ (unpublished doctoral thesis, Marquette University, 2010), pp. 41-82; see also Schmidt-Biggemann, *Philosophia Perennis*, pp. 129-142.

¹³⁸ Col 1:16-17. A good review of the topos of the Cosmic Christ in St Paul see George A. Maloney, *The Cosmic Christ: From Paul to Teilhard* (New York, NY: Sheed and Ward, 1968), pp. 17-70.

emphasised throughout the Pauline writings.¹³⁹ The figure of Christ as Lord reflected the appropriation of the figure of Wisdom from the Bible and the Word from Philo.¹⁴⁰

Christ Pantocrator was also an integral doctrine of many early Christian Fathers, like St Irenaeus, St Clement of Alexandria, Origen or Tertullian.¹⁴¹ Via St Maximus the Confessor and John Scotus Eriugena, a more contemporary influence on Van Helmont may have been Nicholas of Cusa, who maintained that Christ is ‘the perfection of the universe [...] the perfection of all things’.¹⁴²

For his part, Van Helmont believes that ‘in Christ Jesus we live, move, and have our being.’¹⁴³ The affirmation hence carries St Paul’s expression further, by explicitly equating the God of the Sermon to the Athenians with Christ.¹⁴⁴ Van Helmont strengthens it by referring to John 18:6 where Jesus in the Garden of Gethsemane told the soldiers ‘I am he’. Jesus was of course answering their question of whether he was Jesus of Nazareth, but Van Helmont takes it as a mystical affirmation of Christ’s identity with God. His interpretation is based on the idea that, since Christ had just outspokenly assumed the role of God ‘in whom we move’, he concomitantly withdrew the power of movement from the soldiers who fell to the ground.¹⁴⁵

In his insistence on Christ as creator, ruler and administrator of the Universe, Van Helmont closely follows the New Testament view, which expresses the idea that God made the world ‘through Christ’ and the subsequent Nicean statement according to which Christ was the one through whom the Universe was made.¹⁴⁶ By explicitly stating that all things live in Jesus Christ, he formulates a vivid image of the Son of God as immanent in Nature. He explicitly exalts Jesus Christ as the ‘Prince of Life’,

¹³⁹ For many examples, see Giulea, *Noetic Paschal Anthropos*, pp. 58-64.

¹⁴⁰ On the Wisdom figure as primordial cause of creation and divine mirror, see Schimdt-Biggemann, *Philosophia Perennis*, pp. 136-138; for the Word in Philo see Endo, *Creation and Christology*, pp. 171-178.

¹⁴¹ Giulea, *Noetic Paschal Anthropos*, pp. 135-170.

¹⁴² Nicholas of Cusa, *On Learned Ignorance*, trans. by Jasper Hopkins, 3 vols (Minneapolis, MI: Arthur Banning Press, 1981), III, 199. See also the pertinent analysis of Nicholas of Cusa’s thought in David Albertson, ‘That He Might Fill All Things: Creation and Christology in Two Treatises by Nicholas of Cusa’, *International Journal of Systematic Theology*, 8:2 (2006), 184-205: ‘When Christ the God-Man is also interpreted as the fundament of the created order itself, he becomes the figure who unifies God, world, and self in the most utterly concrete unity’, p. 204. As Matthieu van der Meer has pointed out, Christ is the metaphysical centre of the Universe in Cusa’s *De docta ignorantia*; ‘Nicholas of Cusa’s View of Time and Eternity’, in *Christian Humanism: Essays in Honours of Arjo Vanderjagt* (Leiden: Brill, 2009), pp. 317-339 (p. 319).

¹⁴³ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 12, ‘Studia authoris’, p. 15: ‘in Christo Iesu vivimus, movemur, & sumus’.

¹⁴⁴ In Acts 17:28, St Paul only talked about ‘God’ in a general sense, not about Christ.

¹⁴⁵ Van Helmont, chap. 16 ‘An Irregular Meteor’, p. 90, ‘Meteoron anomalum’, p. 73.

¹⁴⁶ 1 Corinthians 8:6; Colossians 1:15-20, John 1:1-3, Hebrews 1:2; the Council of Nicaea stated that ‘through the one Lord Jesus Christ, the son of God, all things were made’. See also Jaroslav Pelikan, *Jesus Through the Centuries* (New Haven, CT: Yale University Press, 1985), pp. 57-70.

underlining His role as life-giver and maintainer of long life.¹⁴⁷ The Flemish physician extends God's attributes to Christ: for instance, he refers to Him as Infinite Goodness.¹⁴⁸ He also emphasises the idea of Christ's paternity in Nature.¹⁴⁹

In line with his Christocentrism, Van Helmont also emphasises the important role in nature played by the divine Word.¹⁵⁰ The Word is described as 'the first example of all causes'.¹⁵¹ Creation began with God's Word, *Fiat* or 'Let it be done', which figures in the first chapter of Genesis. As Van Helmont expresses it,

The thrice glorious Almighty, by the naked, and pure command of his own cogitation, and conceived Word [*Fiat*] or let it be done, made the whole Creature of nothing; and put seminal virtues into it, durable throughout ages.¹⁵²

In a letter to Mersenne, Van Helmont also noted that the properties of things are a 'gift infused by the word *Fiat*'.¹⁵³ *Fiat* is also the prime mover that sets things in motion and impresses universal activity for all time.¹⁵⁴ It implements the divine will and the incomprehensible power of God, who only has to speak a word and the Universe is created. This Word is so powerful that 'the Universe should remain still, even as it now subsisteth, by the infinite power of the Word, if it should be so commanded.'¹⁵⁵

Secondarily, God used another Word, 'increase and multiply', to bestow fruitfulness unto nature: 'For he, who by a small Word, made the Stars of nothing, hath constituted a co-like Power of the Word (*Increase and Multiply*) within the innermost Parts of Seeds, which is to endure throughout Ages.'¹⁵⁶ Thus, this second pronouncement lends permanence to the world by allowing it to generate and increase. Through it, matter is continuously engendered by the spiritual *Semina* and Ferments and

¹⁴⁷ Van Helmont, chap. 68, 'I proceed unto the Knowledge of Diseases', p. 538; 'Progreditur ad morborum cognitionem', p. 431; chap. 103, 'The Property of External Things', p. 725, 'Externorum proprietates', p. 571; chap. 116, 'The Mountain of the Lord', p. 807, 'Mons Domini', p. 629. The term 'Prince of Life' occurs in Acts 3:15.

¹⁴⁸ Van Helmont, chap. 79, 'Butler', p. 586, 'Butler', p. 466.

¹⁴⁹ Van Helmont, chap. 62, 'A Disease is an Unknown Guest', p. 494, 'Ignotus hospes morbus', p. 396.

¹⁵⁰ Broeckx, 'Van Helmont: Ad judicem', p. 110.

¹⁵¹ Van Helmont, chap. 3, 'The Hunting or Searching Out of Sciences', p. 21, 'Venatio scientiarum', p. 21: 'primi exemplaris omnium causarum'.

¹⁵² Van Helmont, chap. 68, 'I Proceed unto the Knowledge of Diseases', p. 536, 'Progreditur ad morborum cognitionem', p. 430: 'Ter gloriosus omnipotens, suae cogitationis nudo puroque mandato, conceptoque verbo (*fiat*) totam creaturam ex nihilo fecit: illique vires seminales, in seculum durabiles, indidit.'

¹⁵³ '30 Janvier 1631', p. 56: 'Proprietates rerum sunt dona infusa per verbum *Fiat*'.

¹⁵⁴ Van Helmont, chap. 24, 'The Blas of Man', p. 176, 'Blas humanum', p. 144.

¹⁵⁵ Van Helmont, chap. 42, 'An Unknown Action of Government', p. 325, 'Ignota actio regiminis', p. 262: 'In primis namque permaneret Universus, pro ut modo subsistit, infinita vi verbi, si ita jussus esset.'

¹⁵⁶ Van Helmont, chap. 110, 'Short Life', p. 749, 'Vita brevis', p. 588.

shall continue to be so until the end of time.¹⁵⁷ Indeed, the Word preserves creation unto eternity by renewing the *Semen*, ‘for the seeds and species of the word are durable for ever’.¹⁵⁸

Van Helmont’s affirmation of the role of the Word-Christ in the creation and maintenance of the universe hence reflects the importance of Logos theology in the Paracelsian philosophy of his time. Yet Van Helmont advocates an even more important role for Christ in relationship with human beings. As we will further see in the next sub-chapter, God in Man, Christ is viewed as Saviour, Wisdom and Truth.

4.1.4. God in Man

4.1.4.1. God as Father

God is the Creator of all things, but His relationship with humanity is much closer than with other creatures. Thus, He decided to use his own Image, Christ, as the ‘Archetype’ for humanity.¹⁵⁹ The desire of God to create a being that would be like him, Van Helmont says, originates from the purest and highest love: ‘The Almighty, out of his vast, and voluntary goodness of Love, hath loved, and raised up Man peculiar for this purpose, that he might intimately and as nearly as may be, express his own Image.’¹⁶⁰ Thus it is toward human beings that God is manifesting his ‘Mystery of the unutterable Love’.¹⁶¹ The creation of Man is hence the supreme expression of the attribute of ‘divine goodness’.¹⁶²

So strong is God’s love for humanity that Van Helmont cannot believe that He would ever punish or curse it. Thus, in his commentary on the book of Genesis, Van Helmont denies that God either gave a law to Adam not to eat from the Tree of Good

¹⁵⁷ See also, Van Helmont, ‘A Treatise of the Disease of the Stone’, chap. 1, p. 830: ‘For this God hath freely put into living Creatures and plants, a seminal faculty of framing such an Idea: that is, a fruitfulness of multiplying and raising up Of-spring, by vertue of the Word (*Encrease and multiply*) to endure for Ages.’ ‘Tractatus de Lithiasi’, chap. 1 ‘Petrificatio’, p. 650: ‘Hic [Deus] namque animalibus, ac plantis, seminalem fabricandae ejusmodi Ideae, id est: multiplicandae, suscitandaeque sobolis foecunditatem, gratis indidit, vi vocis (crescite & multiplicamini), in seculum duratura.’

¹⁵⁸ Van Helmont, *Opuscula medica inaudita*, ‘On the Plague-Grave’, chap. 4, ‘A Forreign New Plague or Contagion’, p. 1095, ‘Tumulus pestis’, ‘Peregrina Lues nova’, p. 847: ‘Sunt namque Verbi, semina ac species, in aevum durabilia.’

¹⁵⁹ Van Helmont, chap. 35, ‘Image of the Mind’, p. 263, ‘Imago mentis’, p. 213.

¹⁶⁰ Van Helmont, chap. 92, ‘A Position’, pp. 652-654, ‘Thesis’, pp. 515: ‘Omnipotens ex sui immense & spontanea amoris bonitate, hominem ad hoc peculiariter dilexit & erexit, ut sui imaginem intime & quamproxime exprimeret’.

¹⁶¹ Van Helmont, chap. 101, ‘Life Eternal’, p. 751, ‘Vita aeterna’, p. 590: ‘ineffabilis divini amoris hocce mysterium’.

¹⁶² On this essential attribute, see chap. 4.1.2.

and Evil or that He cursed him in the aftermath of breaking this law.¹⁶³ Instead, God's words to Adam were a persuasive and loving admonition that warned of the consequences of eating from the Tree.¹⁶⁴ This interpretation allows Van Helmont to uphold his view that God did not create death, or impose it as a punishment for the Original Sin, as death is something that man created for himself.¹⁶⁵ Hence the Fall is exclusively Man's responsibility, and must not be blamed on anyone else.

Thus Van Helmont's interpretation exonerates God from playing any part in the human tragedy of the Fall, and even from enacting a punishment for disobedience. Indeed, a negative act would taint Van Helmont's view of God as pure goodness.¹⁶⁶ This enduring love is linked with Van Helmont's view of God as the benevolent Father of human beings, 'the Fountain of all Paternity'.¹⁶⁷

Yet the Fatherhood of God means much more to Van Helmont than in traditional views. Thus, he holds the peculiar view that all human beings were meant to be born from an earthly mother and a heavenly Father, through the agency of the Holy Spirit. The race of men, Van Helmont argues, was to be generated by the Holy Spirit through Eve.¹⁶⁸ God intended to 'incarnate' his own Image in each human being by imprinting the Holy Spirit onto the flesh of perpetually virginal women:

It is agreeable to Reason, that if God would make his own Image in flesh, and bless it by Posterity, that that ought to be done in the Mother being a Virgin: but not in a Woman defiled by Adam, least God should have Man his competitor in the intended Incarnation of his own Image.¹⁶⁹

God would have assumed direct Paternity of human beings, with no involvement of the male gender,¹⁷⁰ and the generation of man was to be done by the 'overshadowing of the holy Spirit alone'.¹⁷¹ In this sense, Christ's birth from a virgin was not the exception, but the prototype of all human births, if the Fall had not taken place. Indeed, as Van Helmont puts it, 'we may after some sort conjecture of the quality of human

¹⁶³ Van Helmont, chap. 92, 'A Position', pp. 653-654, 'Thesis', pp. 515-516.

¹⁶⁴ Van Helmont, chap. 101, 'Life Eternal', p. 751, 'Vita aeterna', p. 590.

¹⁶⁵ Van Helmont, chap. 92, 'A Position', pp. 652, 654, 'Thesis', pp. 515, 516; for Van Helmont's perspective on death as something self-provoked by man see below, chapter 4.2 Man.

¹⁶⁶ Van Helmont, chap. 92, 'A Position', p. 657, 'Thesis', p. 519.

¹⁶⁷ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 663, 'Demonstratur thesis', p. 524: 'fonte omnis paternitatis'.

¹⁶⁸ Van Helmont, chap. 92, 'A Position', p. 656, 'Thesis', p. 518.

¹⁶⁹ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 661, 'Demonstratur thesis', p. 522: 'Inprimis est rationi consentaneum: Si Deus volebat in carne facere sui imaginem, eamque per posteros beare, id debuisset fieri in Virgine matre: non autem in muliere per Adamum stuprata, ne Deus virum competitorem haberet in intent suae imagines incarnatione'.

¹⁷⁰ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 662, 'Demonstratur thesis', p. 523.

¹⁷¹ Van Helmont, chap. 92, 'A Position', p. 652, 'Thesis', p. 515: 'obumbratione solius S. Spiritus'.

generation in Eve, a Virgin, before the Fall, by the most glorious Incarnation of our Lord'.¹⁷² In other words, human beings are naturally 'sons of God'.¹⁷³

Since God had intended to be the author of human generation, no carnal copulation was allowed in heaven.¹⁷⁴ In fact, Van Helmont makes the startling affirmation that Adam and Eve were not created to be consorts, but companions. However, the devil interfered with God's plan, encouraging them to eat of the Tree of Knowledge of Good and Evil, which Van Helmont understood to be the 'faculty of producing a fructifying Seed'.¹⁷⁵ The Original Sin, in his view, is then the sexual act, incited by the apple: 'the Apple being eaten, presently their Eyes were opened, and Adam began lustfully to covet after the naked Virgin, and defiled her'.¹⁷⁶ There is of course no such passage in Genesis, but Van Helmont argues that the Bible purposefully avoided mentioning sex out of shame.¹⁷⁷

To support his argument that the Original Sin was to be understood as the sexual act, Helmont brings St Augustine to his defense.¹⁷⁸ In reality, Van Helmont's ideas were drawn from more contemporary sources. The theory bears strong resemblances to the doctrine of the equivalence of the Original Sin with the sexual act, advocated in the period by such Louvain alumni as theologians Michel de Bay (Baius) (1513-1589) and Cornelius Jansen (1585-1638). Pagel has maintained that Van Helmont was aware of Jansen's posthumous *Augustine* (1638), which generated the heretical Jansenist movement.¹⁷⁹

Yet the origin of Van Helmont's speculation on the Original Sin must be sought earlier than Baius and Jansenius. An important clue is rendered by the papers found in Van Helmont's possession in 1634 and confiscated by the Ecclesiastical Court.

¹⁷² Van Helmont, chap. 93, 'The Position is Demonstrated', p. 663, 'Demonstratur thesis', p. 525: 'Qualitatem autem generationis humanae ante lapsum in Eva virgine quodammodo conjicere licet ex gloriosissima Incarnatione Domini'.

¹⁷³ Van Helmont, chap. 92, 'A Position', p. 657, 'Thesis', p. 519.

¹⁷⁴ Van Helmont, chap. 92, 'A Position', p. 657, 'Thesis', p. 519.

¹⁷⁵ Van Helmont, chap. 92, 'A Position', pp. 652, 654, 'Thesis', pp. 515, 517. Again, the idea of 'Adamical' generation transmitted through the seed is Augustinian, see above note.

¹⁷⁶ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 665, 'Demonstratur thesis', p. 527: 'Manso autem pomo, statim aperti sunt oculi eorum, cepitque Adam libidinose concupiscere nudam virginem, eamque stupravit'.

¹⁷⁷ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 665, 'Demonstratur thesis', p. 527.

¹⁷⁸ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 679, 'Demonstratur thesis', p. 538. He cites from Augustine's *City of God*, *Against Julian*, *The Flesh of Sin* and *On Marriages*, referring to Augustine's idea of the concupiscence of flesh. For most citations from St Augustine I have used *The Works of Saint Augustine*, ed. by J.E. Rotelle (New York, NY: New City Press, 1990-).

¹⁷⁹ In 'J.B. Van Helmont, De Tempore', p. 344. Obviously, the ultimate source of all these speculations, and the author that Van Helmont is keen to cite is St Augustine, who postulated that Original Sin was transmitted through the concupiscence of flesh across generations, *Against Julian* in *The Works of Saint Augustine*, ed. by J.E. Rotelle (New York, NY: New City Press, 1998), I.24, 4.4.3.4-4.8.44; see also Rist, *Augustine: Ancient Thought Baptized*, pp. 319-327.

Amongst these the prosecutors found an extract in Van Helmont's own handwriting, which contains the statements that the Original Sin is the sexual act between Adam and Eve, and consequently that coitus is the source of death.¹⁸⁰ The Ecclesiastical Court inquired about the source of these statements, to which Van Helmont replied that the excerpts were taken from Henry Cornelius Agrippa's declamation 'On the Original Sin' (*De peccato originale*).¹⁸¹ This work does indeed contain the idea of sex as being the Original Sin, as Marc van der Poel has shown.¹⁸² However, Agrippa does not go as far as to claim that the Holy Spirit was supposed to be the 'father' of prelapsarian man; this surprising view seems to be Van Helmont's own elaboration. Yet it is clear that the Flemish philosopher's theory draws from Renaissance humanist sources; one should not, however, exclude the influence of the Baianist theology at Louvain.

In line with his views of God as paternal goodness, Van Helmont further believes that God's love for human beings did not alter by consequence of the Sin. If Man took upon himself the evil of disease and death, God sought to remediate his fallen status. The Sin cannot change God's fundamental relationship with humanity as 'divine goodness, Framer, Lover, Saviour, Refresher of humane Nature and Father of the poor'.¹⁸³ It is essentially this unsatisfactory state of affairs which prompts Christ to embody Himself as the son of Virgin Mary and provide a path not only to reverse the effects of Original Sin, but to be glorified as Sons of God by new Birth.¹⁸⁴

4.1.4.2. *Christ as Saviour*

In Van Helmont's view, the incarnation of God as Jesus Christ was a necessary consequence of Adam's lapse. Jesus came to earth to restore human beings to their true destiny as sons of God. This mission, Van Helmont argues in line with the orthodox tradition, is accomplished by means of the two chief Sacraments: that of Baptism and of the Eucharist. As will further be shown, Van Helmont's insistence on the Sacraments as paramount to Salvation are Catholic in essence, but his arguments and his tendency

¹⁸⁰ MS 'Causa J.B. Helmontii Medici', II, 27-31.

¹⁸¹ Broeckx, 'Interrogatoires', pp. 346-347.

¹⁸² Marc van der Poel, *Cornelius Agrippa: The Humanist Theologian and His Declamations* (Leiden: Brill, 1997), pp. 225-246; van der Poel claims that this declamation had no impact on theological speculation, at least before the end of the seventeenth century; this study shows that at least Van Helmont was influenced by this declamation. Further research is required to ascertain whether Michel de Bay or Jansenius read Agrippa.

¹⁸³ Van Helmont, chap. 79, 'Butler', p. 589, 'Butler', p. 469: 'divinae bonitati, humanae naturae Conditori, Amatori, Salvatori, Refectori, pauperumque Patri'.

¹⁸⁴ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 680, 'Demonstratur thesis', p. 539.

to downplay the other Catholic Sacraments seem very similar to Paracelsus's own theological ideas.

Van Helmont advocates a central role for Christ as the Saviour of mankind. To redeem us, Christ must be born in human shape, or in 'the form of a servant'.¹⁸⁵ Christ must become an 'Adamical Man' such as Adam was, except He is not born of the 'Flesh of Sin'. Van Helmont emphasises that He is 'like' Adamical Man, but this is only an appearance. His 'true' self, he points out in a letter to Mersenne, is revealed to human beings only on mount Tabor.¹⁸⁶ The Taboric transfiguration of Christ represents Jesus's assumption of His sinless, 'virgin body' in front of the Apostles.¹⁸⁷

Van Helmont further views the virgin birth of Christ as being done through the direct intervention of the Holy Spirit in the arterial blood of the heart of the Virgin Mary.¹⁸⁸ This idea allows Van Helmont to present a 'natural' explanation of the virginal conception of Christ, whereby He was not created in the womb from a *semen*, but later brought into it through the blood stream.¹⁸⁹ Although I have not found this idea articulated by any other author of his time, it is clear that Van Helmont was undoubtedly inspired by the contemporary emphasis on the arterial blood as the carrier of the vital spirit. This Galenic vital spirit was associated with the Holy Spirit by the physician Michael Servetus (1511-1553) and later by Petrus Severinus.¹⁹⁰

In Van Helmont's view, Christ brought with him the message of regeneration, the mystery of the Baptism, which to the Flemish thinker means a 'Virginal Generation' that would replace the impure Adamical generation caused by the Original Sin.¹⁹¹ As he emphasises,

The joyful Message was brought unto us, that one Baptism should be given for the Remission of Sins, whereby Man should be so renewed by Water and the Holy Spirit, that his Soul should be born again as it were by a new

¹⁸⁵ Philippians 2:7: 'But made himself of no reputation and took upon him the form of a servant and was made in the likeness of men'.

¹⁸⁶ '14 Février 1631', p. 103.

¹⁸⁷ On the transfiguration of Christ, see Matthew 17:1-17:2.

¹⁸⁸ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 663 (formerly 665), 'Demonstratur thesis', p. 525; there is an error in pagination in the English version: after page 664 the numbering continues with 663 and goes on from there throughout the rest of the publication.

¹⁸⁹ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 663 (665), 'Demonstratur thesis', p. 525. Since Van Helmont believed, as many of his contemporaries did, that women had a seed of their own, he emphasises this 'transportation' as a means of denying any implication of a seed in the creation of Christ. In fact, he goes further by affirming that Virgin Mary was born free from Original Sin.

¹⁹⁰ For Servetus, see Debus, *French Paracelsians*, p.3; for Severinus, see Walter Pagel, *William Harvey's Biological Ideas* (Basel: Karger, 1967), pp. 245-247.

¹⁹¹ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 670, 'Demonstratur thesis', p. 531.

Nativity, and be made partaker of the unspotted humanity of Christ the Saviour, being framed by the Holy Spirit.¹⁹²

The effects of Baptism are striking, transforming the person into a living image of Christ: thus, we can ‘contemplate the actual Person of Christ in an old Man, a Woman, a young Man, a poor diseased Man, a miserable and naked poor or little esteemed Man, or Woman’.¹⁹³ Hence Baptism brings about a profound transformation that will be visible in the afterlife, when the old body will be replaced by the new, glorified body. The Elect will then become true ‘Sons of God’; in other words, they will assume the Taboric body of Christ.¹⁹⁴ In these views, Van Helmont is clearly drawing on the orthodox Paulinian tradition.¹⁹⁵

Van Helmont opines that Baptism is sufficient for children, but in adults it must be complemented by the Eucharist due to the frailty of our Adamical body.¹⁹⁶ The Eucharist, Van Helmont states, ‘is Wine which buddeth forth Virgins’.¹⁹⁷ It allows us to partake in Christ’s ‘Incomprehensible and Amorous Incarnation, as we participatively put on his Virginity (in which we ought to be saved) by being born again’.¹⁹⁸ Hence, by the Eucharist, ‘the Virgin nature of Christ, and the Merits of his Passion may be unitively communicated unto us.’¹⁹⁹ He does not mean to imply by this that humans become God, but that they mystically partake in the Virgin flesh of Christ.²⁰⁰ By ‘eating the Lord’s Body’, human beings experience a profound transformation whereby the flesh is altered into the Virgin flesh of the Lord, being readied for eternal Life after death.²⁰¹

Without Baptism and, in adults, Holy Communion, Van Helmont emphasises, there is no Eternal Life breathed into a person. Hence at the Last Day, even though all

¹⁹² Van Helmont, chap. 111, ‘Life Eternal’, p. 750, ‘Vita aeterna’, p. 589.

¹⁹³ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 669, ‘Demonstratur thesis’, p. 530: ‘Imo credere ac contemplari actualement personam Christi in sene, muliere, juve, morbidio, pauper, misero, homuncione atque nudo, intelligere nemo potest naturaliter, nisi per fidem compulsus intellectum fidei substraverit’.

¹⁹⁴ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 669, ‘Demonstratur thesis’, p. 530.

¹⁹⁵ On the Paulinian concept of participation in Christ and eschatology, see James D.G. Dunn, *The Theology of Paul the Apostle* (Edinburgh: T&T Clark, 1998), pp. 390-412, 466-498.

¹⁹⁶ Van Helmont, chap. 93 ‘The Position is Demonstrated’, p. 671, ‘Demonstratur thesis’, p. 532.

¹⁹⁷ Ibid. Van Helmont refers to Zecharias 9:17 which in the Vulgata version reads ‘vinum germinans virgines’; chap. 93, ‘The Position is Demonstrated’, p. 671, ‘Demonstratur thesis’, p. 532.

¹⁹⁸ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 673, ‘Demonstratur thesis’, p. 533: ‘Communio itaque castissimi illius corporis, unit nos suo mystico corpori, reditque nos participes incomprehensibilis & amorosae suae Incarnationis, quatenus renascendo virginitatem ejus (in qua salvari debemus) participative induimus’.

¹⁹⁹ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 673, ‘Demonstratur thesis’, p. 533: ‘ut nobis unitive communicetur natura virginea Christi, & merita suae passionis’.

²⁰⁰ Van Helmont, chap. 111, ‘Life Eternal’, p. 750, ‘Vita aeterna’, p. 589.

²⁰¹ Van Helmont, chap. 111, ‘Life Eternal’, p. 750, ‘Vita aeterna’, p. 589.

human beings will arise, only those granted Life Eternal will gain access to Paradise.²⁰² The new Birth by Sacrament, of course, does not take away physical death, but ‘Eternal Death’. The new body will still be made of flesh, but this will not be the flesh of sin but that of the Lord, which Van Helmont always terms as ‘virginal’.²⁰³

Van Helmont’s insistence on the Sacraments as a ‘mystical union’ between man and Christ and essential for salvation is orthodox, although he does not address the contentious medieval doctrine of transubstantiation, which had been upheld by the Council of Trent.²⁰⁴ He clearly upholds a similar version to transubstantiation, but not expressed in Scholastic or Aristotelian terms.

We cannot be sure how familiar Van Helmont was with Paracelsus’s theological treatises, most of which remained unpublished until the twentieth century, yet one cannot help noticing that their arguments concerning the two Sacraments are similar.²⁰⁵ They both emphasise the idea that not only the soul, but the body has to be transformed as well. Paracelsus had maintained that both the body and the soul will enter heaven, except this is not the earthly, Adamic body, but the immortal, spiritual one.²⁰⁶ The new body is obtained by sacramental participation in the ‘divine-spiritual corporeality of Christ’ as Kurt Goldammer has called it.²⁰⁷ Indeed, both emphasised that this spiritual body is obtained through Baptism and the Eucharist, which allow human beings to take

²⁰² Van Helmont, chap. 111, ‘Life Eternal’, p. 751, ‘Vita aeterna’, p. 590.

²⁰³ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 672, ‘Demonstratur thesis’, p. 533.

²⁰⁴ Lindberg, *The European Reformations*, chap. 14 ‘Catholic Renewal and Counter-Reformation’ shows how the Catholic Church upheld this doctrine against Lutheran and Calvinist objections.

²⁰⁵ Dane Thor Daniel refers to Paracelsus’s sacramental theology as ‘the immortal philosophy’ (*untötliche philosophie*); ‘Paracelsus on Baptism and the Acquiring of the Eternal Body’, in *Paracelsian Moments*, eds. by Gerhild Scholz Williams & Charles D. Gunnoe, Jr. (Kirkville, MI: Sixteenth Century Journal Publishers, 2002), pp. 117-135 (p. 117). See also Dane T. Daniel, ‘Invisible Wombs: Rethinking Paracelsus’s Concept of Body and Matter’, *Ambix*, 53:2 (2006), 129-142 (p. 131). Paracelsus’s theory of the sacraments has been analysed chiefly by Kurt Goldammer, *Paracelsus in neuen Horizonten: Gesammelte Aufsätze* (Vienna: Verband der wissenschaftlichen Gesellschaften Österreichs, 1986), pp. 87-122; Hartmut Rudolph, ‘Hohenheim’s Anthropology in Light of His Writings on the Eucharist’, in *Paracelsus: The Man and His Reputation, His Ideas and their Transformation*, ed. by Ole Peter Grell (Leiden: Brill, 1998), pp. 187-206; and Michael Bunnars, *Die Abendmahlsschriften und das medizinisch-naturphilosophische Werk des Paracelsus* (Berlin: Humboldt University, 1961).

²⁰⁶ Rudolph, ‘Hohenheim’s Anthropology’, pp. 192-193, based on his study of Paracelsus’s Eucharistic writings. It was a theological commonplace in the era that the body would accede to heaven in some form, but there were disagreements on how this body would look like and behave. Scholastic thought, after Aquinas, emphasised the impassibility and non-desiring nature of the resurrected body, but generally theologians argued against speculations on the topic. See Caroline Walker Bynum, *The Resurrection of the Body in Western Christianity, 200-1336* (New York, NY: Columbia University Press, 1995), pp. 236, 250. As Bynum has perceptively pointed out elsewhere, the materiality of the resurrection body was taken for granted in the Middle Ages, and it is we today who find it odd; Bynum, ‘Material Continuity, Personal Survival, and the Resurrection of the Body: A Scholastic Discussion in its Medieval and Modern Contexts’, *History of Religions*, 30:1 (1990), 51-85 (pp. 51-52, 57). Both Paracelsus and Van Helmont might have been influenced by St Paul’s speculations of a spiritual body ascending to heaven in 1 Cor 15.

²⁰⁷ Kurt Goldammer, ‘III. Einleitungen zu den Schriften dieses Bandes, 2. De genealogia Christi’, in Theophrastus Paracelsus, *Sämtliche Werke II: Abteilung: Die theologischen und religionsphilosophischen Schriften*, ed. by Kurt Goldammer (Wiesbaden: Steiner Verlag 1955), III, xxx-xxxi.

the form of Christ.²⁰⁸ Incidentally, both played down the other Catholic sacraments, with the qualification that Van Helmont did accept the sacrament of marriage as essential in order to rein in the concupiscence of the flesh.²⁰⁹

There are other elements that draw Van Helmont closer to Paracelsus's theology. Like Van Helmont, Paracelsus's theological ideas were generally solidly Christocentric.²¹⁰ Paracelsus also upheld the idea that Christ was of a different constitution than ordinary human beings.²¹¹ Such an idea led Dane T. Daniel to deem him a heretic of the Docetist or Monophysitic type, because he denied the full humanity of Christ.²¹² Without taking a position on Paracelsus's orthodoxy, it must be said, however, that it was perfectly orthodox to state that Christ had a body that was free from Original Sin, hence in some sense 'different' than the other fallen human beings.²¹³ Surely Van Helmont would have deemed himself in accordance with the Council of Chalcedon's statement of faith in affirming that the true humanity was Christ's humanity, rather than ours: 'Yet being Adamical, was a true Man, such as Adam was, being newly created'.²¹⁴ In doing so, Van Helmont emphasises Christ's nature as the new, or second Adam, a topos originating in St Paul's writings and adopted, amongst others, by Paracelsus himself.²¹⁵

In order to show how it was possible for Christ to be born in a sinless body, both Van Helmont and Paracelsus upheld the idea of the Immaculate Conception of the Virgin Mary as a logical consequence.²¹⁶ Thus, Van Helmont stated that 'the most holy

²⁰⁸ Gause, 'On Paracelsus's Epistemology', p. 142.

²⁰⁹ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 680, 'Demonstratur thesis', p. 539.

²¹⁰ Arlene Miller-Guinsburg, 'Paracelsian Magic and Theology: A Case Study of the Matthew Commentaries', in *Kreatur und Kosmos. Internationale Beiträge zur Paracelsusforschung* (Stuttgart: Fischer, 1981), pp. 125-139 (p. 135); on the other hand, Ute Gause, 'On Paracelsus's Epistemology', p. 214 argues that Paracelsus is not always Christocentric, at least in respect to the concept of 'heavenly magic', differentiating between general and special revelation.

²¹¹ Paracelsus insisted that Christ was made of an 'angelic body, but in blood and flesh'; 'De genealogia Christi', in *Sämtliche Werke II: Abteilung: Die theologischen und religionsphilosophischen Schriften* (Wiesbaden: Steiner Verlag, 1955), III, 3.71.

²¹² Daniel, 'Medieval Alchemy', pp. 130-131. However, such a statement does not seem to be backed by sufficient evidence; he affirms that the fact that Paracelsus believed that Christ had an 'angelic body' automatically meant that 'he refuses to give Christ...human mortal flesh, for he does not wish to place them in a genealogy tainted by the seed of Adam.' Although the term 'angelic body' may be unclear, as mentioned in the preceding note, Paracelsus did state that Christ was present in flesh and blood on earth.

²¹³ The Council of Chalcedon upheld the idea of Christ's two natures, 'true God and true man', but the 'true man' implied that He is 'like us in all things apart from sin'; see Gerald O'Collins, *Christology: A Biblical Historical and Systematic Study of Jesus* (Oxford: Oxford University Press, 2009), p. 196.

²¹⁴ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 668, 'Demonstratur thesis', p. 529: 'Adamicus, verus tamen homo, qualiter Adam noviter creatus'.

²¹⁵ Romans 5:12-21; see also Dunn, *The Theology of Paul*, pp. 199-204, 241-242.

²¹⁶ Of course, Van Helmont's support of the Immaculate Conception did not have to derive from Paracelsus, as it was popular in the era and upheld, amongst others, by the Jesuits. Paracelsus was particularly outspoken about Immaculate Conception as doctrine; in *De salve regina et magnificat* (Leiden, Codex Vossianus Chymicus 24, fols 367f-372v), he stated that 'Far be it from us to teach the

Virgin Mother, presently after the seminal mixture of her Parents, was preserved from the knitting and blemish of Original Sin, before the coming of her Soul.'²¹⁷ Van Helmont believed Christ actually 'for-elected the most chaste and unspotted Virginitie of a Mother, which he formed with a divine Hand.'²¹⁸ Thus, the Virgin Mother was 'sanctified in her Mother's Womb' before birth, being relieved of all sins. This concept differs from Paracelsus's idea of a genealogy of Christ which had been preserved from Original Sin throughout history.²¹⁹ Instead, Van Helmont's argument was in line with that of St Thomas Aquinas, who had maintained that the Virgin's sanctification in the womb erased both Original Sin and all subsequent sins as well.²²⁰

Hence one can conclude that the approach of Van Helmont and Paracelsus in regards to the theological issues of the Sacraments, the Virgin and Christ are similar, but a direct influence cannot be proven at this point. This is especially true since many of the common theological ideas could be found in other tracts of the era, particularly those influenced by German mysticism.²²¹ However, it must be noted that one scholar, Maximilian Bergengruen, has already affirmed that Van Helmont's theological stance is a reiteration of the most important ideas of Paracelsus:

Van Helmont's theological position is a combination of the key topoi in the theological division of the Paracelsian discourses: the structure of salvation history as a direct line from Adam to Christ (the new Adam), the idea of an inner *Imitatio Christi* as the most important task of the believer, the New Birth or Rebirth in Christ, and the loss of individuality and the individual will.²²²

heretical doctrine that she is conceived in original sin'. For commentary on Paracelsus's Mariology, see Weeks, *Paracelsus: Speculative Theory*, pp. 83-85, 88; Arlene Miller-Guinsburg, 'The Counterthrust to Sixteenth Century Misogyny: The Work of Agrippa and Paracelsus', *Historical Reflections*, 8:1 (1981), 3-28 (pp 18- 22). Paracelsus had initially advocated the unorthodox idea of the existence of a Virgin in the Godhead who was the wife of God and bore Christ in eternity.

²¹⁷ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 672, 'Demonstratur Thesis', p. 533: 'At sanctissima mater-Virgo mox a mistione seminali parentum praeservata fuit a nexu, noxae peccati originis, ante haecitatem sive animae adventum'.

²¹⁸ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 673, 'Demonstratur Thesis', p. 533.

²¹⁹ Paracelsus's ideas about Christ's genealogy were primarily stated in *De genealogia Christi*. See Daniel, 'Medieval Alchemy', p. 130; also Michael Bunnars, *Die Abendmahlsschriften*, pp. 94-96.

²²⁰ St Thomas Aquinas, *Compendium of Theology*, trans. by Richard J. Regan (Oxford: Oxford University Press, 2009), p. 181. Closer to Van Helmont's time, the same idea was briefly upheld by Martin Luther; Bridget Heal, *The Cult of the Virgin Mary in Early Modern Germany* (Cambridge: Cambridge University Press, 2007), p. 58. At the end of his analysis, Van Helmont concludes rather triumphantly that 'now, the Question hath seemed to me to be decided...about the unspotted Conception of the God-bearing-Virgin'; chap. 93, 'The Position is Demonstrated', p. 673, 'Demonstratur thesis', p. 533. In reality, it was not settled until 1854 when the doctrine of Immaculate Conception was instituted in the Catholic Church.

²²¹ Maximilian Bergengruen points out that the themes of the old-new Adam, the New Birth and *Imitatio Christi* are present in Luther's thought as well; *Nachfolge Christi – Nachahmung der Natur: Himmlische und Natürliche Magie* (Hamburg: Meiner Verlag, 2007), pp. 57-58.

²²² Bergengruen, *Nachfolge Christi*, p. 51 (my translation).

Of course, many of these themes could be found in the writing of other thinkers of the era, as pointed out above. Moreover, I have already mentioned that Paracelsus's peculiar concept of Christ's genealogy does not seem to be reflected in Van Helmont. However, the existence of the Pauline dichotomy between the old Adam and the new Adam (Christ) is indeed present in both discourses.

4.1.4.3. *Alchemy and Christian Theology*

If it cannot be proven that Van Helmont read Paracelsus's theology, it can, however, be shown that many of his theological ideas originated in the alchemical spirituality and practice of the 'philosophers by fire'. This conclusion can be drawn from Van Helmont's own testimony. As briefly mentioned before, his middle treatise 'Ad judicem neutram causam appellat suam et suorum Philadelphus' contains a long list of statements that Van Helmont claims can be demonstrated 'by fire'. He seems to have believed that any alchemist of his age would have agreed with these ideas, because they are written for his fellow alchemists as a type of 'statements of faith'. At points 51-65 in the list, Van Helmont unexpectedly moves from a pure explanation of nature based on primordial *semina*, Archei and spirits to the inclusion of theological doctrine. What is remarkable is that most of these latter statements reflect the same ideas later expounded in *Ortus medicinae*, such as: Original Sin can only be removed through the regeneration of the whole man; this regeneration must be done through water and the eternal fiery spirit; Christ could only be born from a Mother who did not know menstruation or sin; the glorified body must be united with a body that is drawn from the Virgin, etc.²²³

The inclusion of these theological statements in explicit connection with alchemy much chagrined the Ecclesiastical Court which was trying Van Helmont in 1634.²²⁴ They suspected that what Van Helmont meant was that alchemists could demonstrate in the laboratory the truths of the Christian religion, an idea utterly blasphemous to them. To such allegations, Van Helmont replied that all those statements were in fact metaphors for abstruse alchemical processes, and should not be read as anything else. Forthwith he explained that Christ the Lord really meant Philosophical Mercury; Original Sin - the sordid *materia prima* of the Work; the regeneration of the whole man - the perfection of metals into gold; the perpetual fiery spirit, the alchemical *aqua permanens*; the birth of Christ from a sinless Mother – the

²²³ Broeckx, 'Van Helmont: Ad Judicem', pp. 116-117.

²²⁴ Broeckx, 'Interrogatoires', pp. 341-342.

purity of mercury and the matter wherefrom it is extracted; the glorified body - the union between sulphur and mercury.²²⁵

In other words, in his explanation, Van Helmont maintained that theological ideas were actually used as a 'secret code' by alchemists. He sought to avoid any suggestion that, firstly, alchemists were involved in purely theological speculation, and secondly, that they believed mysteries of faith could be elucidated in the laboratory. We already saw that the first accusation was true, and that many alchemical philosophers, including Van Helmont, Paracelsus, Dorn or Fludd were keen on theological discourse.

Following his explanation, the ecclesiastical judge asked Van Helmont if, perchance, the use of theological terms for purely alchemical matters might be construed as a blasphemy.²²⁶ Van Helmont replied that the alchemists use these terms so that 'pagans' and 'heretics' could be made to know and understand the mystery of faith by laboratory processes, implying that alchemy could be used to convert unbelievers to Christian (or even Catholic) faith.²²⁷ By affirming a conversion or educational role for alchemy, Van Helmont was implicitly maintaining the correspondence between the natural and supernatural planes, between the work in the laboratory and matters of faith. Such an argument did not theoretically blur the boundaries between the two planes, but could still be suspect in the eyes of clergy. Indeed, his friend Mersenne had previously condemned the use of religious and theological terms in alchemy.²²⁸

Perhaps because he was never reprimanded on this subject, the later Van Helmont continued to advocate the didactic role of alchemy in the *Ortus medicinae* as well. He may have been encouraged in this respect by the recent writing of Pierre Jean Fabre, *Alchymista Christianus* (1632), although there is no direct proof that he had read this work. The *Christian Alchemist* is dedicated to Pope Urban VIII and tries to show that alchemy and Christianity, particularly that of the Catholic persuasion, are not at odds with each other; on the contrary, alchemy helps illuminate Christian beliefs. Fabre hence attempted to find correspondences between Christian mysteries and alchemical processes, arguing that the alchemical process is a '*symbolum*' or analogy of Christianity.²²⁹ In other words, Alchemy and Christianity are parallel discourses that can clarify each other, but do not become the same.

²²⁵ Broeckx, 'Interrogatoires', pp. 341-342.

²²⁶ Broeckx, 'Interrogatoires', p. 342.

²²⁷ Broeckx, 'Interrogatoires', p. 342.

²²⁸ Marin Mersenne, *La Verité des Sciences* (Paris: Toussaint Du Bray, 1625), pp. 107, 116-119.

²²⁹ Pierre Jean Fabre, *Alchymista Christianus* (Toulouse: Petrus Bosc, 1632), pp. 130-136.

In turn, Van Helmont uses the analogical approach to illustrate his Christian eschatological views. Hence, he openly associates the Regeneration of souls through the Eucharist with the Projection of the Stone which makes gold.²³⁰ As he explains, ‘I have diverse times handled that stone with my hands, and have seen a real transmutation of malleable Argent-vive or Quicksilver with my eyes, which in proportion did exceed the powder which made the gold in some thousand degrees.’²³¹ This powder preserved the mercury ‘from an eternal rust, putrefaction, death and torture of the fire’, and ‘transchanged it into the Virgin purity of Gold’.²³² The analogy is clear: just as mercury is freed from dissolution and made immortal by the fire, so is the soul of man glorified by the Eucharist and Baptism. Whereas the transformation into gold is achieved by fire, the soul is changed by a ‘just heat of Devotion’.²³³ Moreover, just as the Philosophers’ Stone has the power of projection or multiplication, ‘a very little of this mystical and divine super-celestial Bread doth regenerate, restore and renew a huge number of the Elect’.²³⁴

As in the interrogatory, Van Helmont is careful not to assert a direct relationship between the *chrysopoeian* Stone and the Eucharist, except for the fact that they both occur in the sublunary world.²³⁵ Apart from this, the relationship is that of analogy or similarity.²³⁶ Van Helmont emphasises that the effects of Baptism and the Eucharist – the regeneration of the body – are not visible in this world, but only in the next. Thus, by witnessing or understanding the transmutation of the Philosophers’ Stone, Christians may ‘more easily believe Regeneration’.²³⁷ Hence he reaffirms here that alchemy could have a didactic eschatological purpose.

²³⁰ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 674, ‘Demonstratur thesis’, p. 534: ‘projectione lapidis chrysopeji’. For Van Helmont’s views of *chrysopoeia*, please refer to 4.1.11.

²³¹ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 674, ‘Demonstratur thesis’, p. 534: ‘Etenim illum aliquoties minibus meis contrectavi, & oculis vidi realem transmutationem argenti vivi venalis, propotione superantis aliquot mille vicibus in pondere pulverem chrysopoeijum’.

²³² Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 674, ‘Demonstratur thesis’, p. 534: ‘Pulvis nempe iste sibi uniendo praefatum hydrargyrum, eundem uno instant praeservavit ab aeterna rubigine, carie, morte ac tortura ignis, quantumcunque violentissimi, ac quatenus fecit immortale, contra quemlibet artis ignisque vigorem atque industriam, transtulitque in virgineam auri puritatem.’

²³³ Van Helmont, chap. 111, ‘Life Eternal’, p. 751, ‘Vita aeterna’, p. 590.

²³⁴ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 674, ‘Demonstratur thesis’, p. 534: ‘Sic nempe modo Justus fervor fidelium adfuerit, tantillum hujus mystici & Divini panis supercoelestis regenerat, restaurant, atque innovat immensum electorum numerum’.

²³⁵ Van Helmont, chap. 111, ‘Life Eternal’, p. 751, ‘Vita aeterna’, p. 590.

²³⁶ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 674: ‘Let the Divine pardon me...if by a similitude I have drawn a demonstration from earthly things...to confirm the real and Celestial Regeneration of Purity’, ‘Demonstratur thesis’, p. 534: ‘Ignoscat mihi Tehologus de mundi vita scripture, si ex terrenis demonstrationem per similitudinem, sausu Domini ad Nicodemum hauserim ad confirmandam realem at coelestem puritatis regenerationem & humanae recidentiae restaurationem, argumento quia est a terrenis desumto.’

²³⁷ Van Helmont, chap. 111, ‘Life Eternal’, p. 752, ‘Vita aeterna’, p. 590.

However careful he might have been, Van Helmont cannot escape the implication that the Philosophers' Stone is a type of 'miracle' occurring in the sublunary world, similar in its supernatural status to the Eucharist. We have seen that Petrus Bonus, who advocated the didactic role of alchemy, clearly viewed the Stone as 'supernatural'.²³⁸ There are many signs that Van Helmont concurred with this view, albeit not so openly for fear of heterodoxy.

4.1.4.4. *Christ as Wisdom*

Besides His fundamental roles as 'ruler of the world' and 'Saviour' of humanity, Christ has another attribute that defines his relationship with human beings, which is Wisdom. In 1 Corinthians 1:24, St Paul called Christ 'the wisdom of God'.²³⁹ While there are some debates in regards to St Paul's intentions, subsequent Christian tradition associated the Wisdom (Sophia) of the Old Testament's Psalms and Proverbs with Christ.²⁴⁰ Christ as Wisdom figured prominently amongst medieval writers like St Bonaventure, Johann Tauler and Nicholas of Cusa.²⁴¹ It became a key trope for many Paracelsian writers, including Paracelsus, Heinrich Khunrath, Adam Haslmayr and Oswald Croll.²⁴² For instance, Haslmayr affirmed that 'wisdom is nobody or nothing else but Christ'.²⁴³

In line with this tradition, Van Helmont affirms that Jesus is 'the onely wisdom of the Father', or 'alone is the beginning of the Father's Wisdom, the unlimiting end, the Alpha and Omega, or the one only Scope, in whom a total clearness of all understandings is and ought to be terminated'.²⁴⁴ Elsewhere Van Helmont even more

²³⁸ See above, chapter 3.

²³⁹ See also 1 Corinthians 1:30: 'But of him are ye in Christ Jesus who of God is made unto us wisdom and righteousness...'

²⁴⁰ H. Windisch, 'Die göttliche Weisheit der Juden und die paulinische Christologie', *Neutestamentliche Studien für Georg Heinrici* (Leipzig: J.C. Hinrichs, 1914), p. 232 and A. Feuillet, *Le Christ Sagesse de Dieu d'après les Épîtres pauliniennes* (Paris: Études Bibliques, 1966), pp. 52, 193, 385 argued that Christ of the New Testament (especially St Paul's) was the divine Wisdom of the Jews, while A. Van Roon negated such intention on the part of St Paul, 'The Relationship between Christ and the Wisdom of God according to Paul', *Novum Testamentum*, 16:3 (1974), 207-239 (p. 207). See also, Schmidt-Biggemann, *Philosophia Perennis*, p. 136.

²⁴¹ Ilia Delio, *Simply Bonaventure: An Introduction to his Life, Thought and Writings* (New York, NY: New City Press, 2001), p. 139; Tauler, *The Sermons*, p. 262; Nicholas of Cusa, *Catholic Concordance*, ed. by Paul E. Sigmund (Cambridge: Cambridge University Press, 1996), p. 13; see also Eugene F. Rice, 'Nicholas of Cusa's Idea of Wisdom', *Traditio*, 13 (1957), 345-368 (pp. 348-351, 357).

²⁴² For Paracelsus, see Schmidt-Biggemann, *Philosophia Perennis*, p. 183; for Heinrich Khunrath, *Amphitheatrum Sapientiae Aeternae* (Frankfurt: Tobias Gundermann, 1609), pp. 6, 8, 17; for Haslmayr see Carlos Gilly, 'Theophrastia sancta', pp. 163-176.

²⁴³ In Gilly, 'Theophrastia sancta', p. 173.

²⁴⁴ Van Helmont, chap. 47, 'The Knitting or Conjoyning of the Sensitive Soul and Mind', p. 351, 'Nexus sensitive & mentis', p. 284: '...ad Dominum meum Iesum redeo, qui solus paternae sapientiae principium, interminans finis α & ω , sive scopus unicus, in quem tota omnium intellectionum claritas est, & terminari debet.'

plainly states that ‘Wisdom, the Son of the everlasting Father of Lights, only gives Sciences or knowledge’.²⁴⁵ By this, the Flemish philosopher affirms that Christ–Wisdom is the source of all human knowledge: he is the supreme *scientia* as the Logos in all things. The philosopher must always go through Him to attain true understanding of all things. Hence, in Van Helmont’s vision, knowledge can only be obtained from Christ, and not through one’s own efforts: ‘to understand and savour these things from the spring or first cause, is granted to none without the special favour of Christ the Lord.’²⁴⁶ Van Helmont emphasises the idea of Christ choosing those whom He illuminates:

whom the Lord Jesus shall call unto Wisdom, he, and no other shall come; yea, he that hath come to the top, shall as yet be able to do very little, unless the bountiful favour of the Lord shall shine upon him.²⁴⁷

The vision of Christ as giver of Wisdom is linked with His role as mediator between God and human beings.²⁴⁸ Van Helmont paraphrases John 14:6 to state that

The Lord Jesus [...] is the Way, the Truth, and the Life: the way I say unto himself the Truth, and unto the life of the Father of Lights [...] Where Himself is, the Kingdome of God is present, with all his free gifts.²⁴⁹

The fact that Christ shows the Way to Truth, or knowledge, Van Helmont argues, is indicated by Jesus Himself through the Lord’s Prayer. Hence the Flemish doctor affirms that the Prayer contains an esoteric, mystical teaching that is not immediately apparent.²⁵⁰

Van Helmont’s analysis of the Lord’s Prayer concentrates on the ‘three wishes’: ‘Our Father, which art in Heaven, hallowed be thy Name, thy Kingdom come, thy Will be done’.²⁵¹ As the Prayer calls for the sanctification of the Name of God and the coming of His Kingdom, Van Helmont links these ideas with Matthew 6:33, ‘But seek

²⁴⁵ Van Helmont, chap. 6, ‘Logick is unprofitable’, p. 40, ‘Logica inutilis’, p. 37.

²⁴⁶ Van Helmont, ‘The Author Promises’, p. 5, ‘Promissa authoris’, p. 8: ‘Ast ab ipsa scaturigine, sive a priori istaec intelligere, & sapere, nulli, sine Christi Domini peculiari favour, conceditur’.

²⁴⁷ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 14, ‘Studia authoris’, p. 12.

²⁴⁸ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 313, ‘Mentis complementum’, p. 253.

²⁴⁹ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 313, ‘Mentis complementum’, p. 253; the inspiration is John 14:6.

²⁵⁰ Interpretations of ‘Our Father’ were given by numerous early Church Fathers such as Tertullian, *De Oratione*; Origen: *Perieuches*; St Gregory of Nyssa: *Five Homilies on the Our Father*; see Frederic Henry Chase, *The Lord’s Prayer in the Early Church* (Cambridge: Cambridge University Press, 2004), pp. 25–36.

²⁵¹ Matthew 6:9–10.

ye first the kingdom of God, and his righteousness; and all these things shall be added unto you.’²⁵² The prayer, Van Helmont affirms, is in fact for the Kingdom of God within us to come closer to us; thus is God’s Name hallowed. This is achieved by a mystical knowledge of the self, whereby ‘the Kingdom of God doth as it were come to us, and is renewed’.²⁵³ The emphasis he places is on the presence of God within the soul and the discovery of Him within. Based on the equivalence of the Kingdom of God with God and the soul, Van Helmont concludes that ‘thy Will be done’ means that we naturally desire to annihilate our will so that His Name is sanctified within.²⁵⁴

Although a number of mystical authors had talked about this self-seeking, Van Helmont’s understanding of the Lord’s Prayer is most likely drawn from Johann Tauler. In his Second Sermon for the Fifteenth Sunday after Trinity, Tauler talks about the beginning of the Lord’s Prayer, maintaining that:

it is really a prayer to obtain possession of God’s own self, for the kingdom of God is God Himself, reigning in all created things...If He finds our souls ready, then (as the Pater Noster proceeds) He makes His name known, hallowed and lovingly adored in our interior life. And then follows the coming of His holy kingdom.²⁵⁵

4.1.4.5. The Role of the Holy Spirit

In accordance with the Catholic tradition, Van Helmont believes that the ‘Person of the holy Spirit’ was ‘not generated, but proceeded from eternity, from the Father and the Son’.²⁵⁶ As part of the divine Trinity, the Spirit ‘is the glorious God himself’.²⁵⁷ Yet as a Person it has its own role in the relationship with human beings. The initial – thwarted – role was to be the direct conceiver of man in accordance with God’s pre-Fall plan.²⁵⁸

²⁵² Matthew 6:33.

²⁵³ Van Helmont, chap. 3, ‘The Hunting or Searching Out of Sciences’, p. 23, ‘Venatio scientiarum’, p. 23, ‘quod etiam Regnum Dei, nobis velut adventat, atque renascatur’.

²⁵⁴ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 314, ‘Mentis complementum’, p. 254.

²⁵⁵ Tauler, *The Sermons*, p. 523.

²⁵⁶ Van Helmont, chap. 93, The Position is Demonstrated, p. 663 (f. 665), ‘Demonstratur thesis’, p. 525: ‘...de persona Spiritus Sancti quae scilicet ipsamet proinde non esset generate, sed ab aeterno procederet ex Patre & Filio’.

²⁵⁷ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 669, ‘Demonstratur thesis’, p. 530.

²⁵⁸ Van Helmont, chap. 93, The Position is Demonstrated, p. 686, ‘Demonstratur thesis’, p. 534; see also Van Helmont, chap. 92, ‘A Position’, pp. 652-653, ‘Thesis’, pp. 515-516.

When Adam sinned, condemning the entire human race, the Holy Spirit was given a new, salvific mission, playing a direct role in the incarnation of Jesus Christ.²⁵⁹ However, Van Helmont points out, the Holy Spirit's work does not imply paternity, 'because the material generation of Christ was drawn only from his Mother'.²⁶⁰ Hence, the Holy Spirit 'sealed' and 'inspired' Christ's human mind in the heart of the Virgin.²⁶¹

After the coming of Christ, the Holy Spirit's soteriological role is to regenerate human beings from their Adamical state through the new birth. To clarify this, Van Helmont refers to John 3:3-13: 'Verily, verily, I say unto thee, Except a man be born of water and *of* the Spirit, he cannot enter into the kingdom of God.'²⁶² This is, as mentioned above, the sacrament of Baptism, which is essential in obtaining a new body in the afterlife. The new birth in Christ, he concludes, is effected through a transformation of man by the Holy Spirit into a God-like spiritual form.²⁶³

Van Helmont's doctrine of the Holy Spirit seems to follow the main theological points of the Catholic doctrine. Less usual is his attempt to use a physical analogy to illustrate the theological nature of the Holy Spirit. Thus, he compares the new birth and spiritual generation by the water and Holy Spirit with a natural occurrence, that of the generation of animals, which also involves water and a seminal Spirit.²⁶⁴ Of course, he quickly adds, this does not mean that spiritual generation is 'earthly and intelligible' by reason; on the contrary, it requires a belief by faith.²⁶⁵ Still, this type of analogy suggests that Van Helmont tended to look for expressions of the Christian faith in everyday phenomena, and as such to 'ennoble' or 'sacralise' the ordinary. This is an approach that again renders him closer to Paracelsus, who similarly advocated a correspondence between the natural and the supernatural planes.²⁶⁶

4.1.5. Conclusion: The Innerness of God

The image of God that pervades Van Helmont's writings is that of a Divinity which, although profoundly unknowable, is paradoxically present in each individual

²⁵⁹ Van Helmont, chap. 93, *The Position is Demonstrated*, p. 686, 'Demonstratur thesis', p. 534.

²⁶⁰ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 661, 'Demonstratur thesis', p. 522: 'nec permittit S. Spiritum vocari humanitatis Christi Patrem, eo quod materialis generatio Christi ex sola ejus matre sumta est'.

²⁶¹ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 663, 'Demonstratur thesis', pp. 523-524.

²⁶² Van Helmont, chap. 93, 'The Position is Demonstrated', p. 668, 'Demonstratur thesis', p. 529.

²⁶³ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 669, 'Demonstratur thesis', p. 530.

²⁶⁴ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 669, 'Demonstratur thesis', p. 530.

²⁶⁵ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 669, 'Demonstratur thesis', p. 530.

²⁶⁶ See Daniel, 'Medieval Alchemy', p. 131.

creature. This immanence is hidden within creatures and animates them from the inside: fundamentally, it is life, which can be found in all things. One could conceive of such a God as the invisible ‘centre’ of things, deeply involved in His Creation and incessantly producing life from within. As this chapter has shown, such innerness of God has firm roots in an early Christian vision fed by Neoplatonic ideas, revived in the writings of medieval German mystics and spread further by Renaissance thought.

In Van Helmont’s times, this divine centrality was promoted by Paracelsian philosophy, which also drew on a particular theme of late medieval alchemy, that of the quintessence.²⁶⁷ The quintessence had been framed by John of Rupescissa (fl. 1350) as originating from the heavens, but Pseudo-Lull emphasised that it was made by God Himself, not by Nature.²⁶⁸ Paracelsus, who used the term quintessence as well as *Arcanum* or *Astrum*, seemed to favour the Rupescissan version in his elaborate theory of macrocosm and microcosm.²⁶⁹ However, some of the later alchemists seemed to revert to Pseudo-Lullian interpretations, viewing the quintessence as a divine spirit originating from God or even as God Himself. Thomas Charnocke (1516/1524-1581), for instance, talked about the ‘invisible Godhead’ as being the quintessence of all things.²⁷⁰ Heinrich Khunrath referred to the quintessence as being *Ruach Hochmah-El*, the Spirit of the Wisdom of God,²⁷¹ while others talked about it being the Eucharistic blood of Christ.²⁷² This divine quintessence motif appears as an alchemical development of the vision of Christ as Logos and Wisdom, cosmic Anthropos, the archetype of man and the essence of the universe.²⁷³

In line with this tradition, Van Helmont saw Christ as central to both the search for Wisdom (*sapientia*) and eternal salvation. For a philosopher-physician thirsting for knowledge such as Van Helmont, Christ offered epistemological certainty. Christ is intimately bound up with the understanding of both the soul and the world: as Wisdom, he is the author of all knowledge, and as Wisdom-Archetype and Logos, he is also knowledge itself. He is present in the essence of all things, the *scientia* which Van Helmont sought in nature. Hence all epistemology is bound up with Christ: He is ‘the

²⁶⁷ More on this see chapter 3.

²⁶⁸ In the Rupescissan version, the quintessence was infused from the heavens; Johnannes de Rupescissa, *La Vertu et Propriete de la Quinte Essence*, 2 vols (Lyon: Jean de Tournes, 1549), I, 16; ‘Raymond Lulli Theorica & Practica’, IV, 6.

²⁶⁹ F. Sherwood Taylor, ‘The Idea of the Quintessence’, in *Science, Medicine and History*, ed. by E. Ashworth Underwood, 2 vols (London: Oxford University Press, 1953), I, 247-265 (pp. 262-263).

²⁷⁰ Thomas Charnocke, ‘The Camp of Philosophy’, in *Theatrum Chemicum Britannicum* (London: Nathaniel Brooke, 1652), pp. 306-307.

²⁷¹ Khunrath, *Amphitheatrum Sapientiae Aeternae*, p. 19.

²⁷² Urszula Szulakowska, *The Sacrificial Body and the Day of Doom* (Leiden: Brill, 2006), p. 17.

²⁷³ For a good summary of some of the motifs of the Christ Anthropos in alchemy, see Szulakowska, *The Sacrificial Body*, pp. 15-36.

beginning and the ending of all Essence, Truth and Knowledge'.²⁷⁴ Thus, Van Helmont's Christocentrism provides a unitary understanding of the universe and Man. As we shall see in more detail in the next chapters, this view of the ubiquity and immanence of God and Christ in the Universe and within man dominated Van Helmont's views on Nature and Man.

4.2. On Nature

As already shown in the previous chapter, Van Helmont viewed Nature as being permeated by the divinity. In this chapter, I will look in detail at Van Helmont's views of Nature, a subject he found of uttermost importance given his vocation as physician and natural philosopher.

Van Helmont did not view Nature as being a rival to either God or Man. On the contrary, Nature is created by God in order to implement His will. Hence Nature never acts outside divine jurisdiction. Due to this view, Van Helmont does not think that Nature needs to be 'subdued' or 'wrestled with' by Man; she would naturally obey him as the image of God if he had not fallen prey to Original Sin. At the same time, Nature is not dead; it is permeated by the divine Word and Wisdom. By virtue of its provenance from God, Man must respect the divine in Nature.

This chapter is divided into three major parts: Van Helmont's view of Nature, Physical Nature, and Spiritual Nature. This division reflects Van Helmont's understanding of the world in dualist terms: matter and spirit, passive and active. This does not mean that he viewed the two as opposite and unconnected; on the contrary, matter and spirit had a natural relationship of attraction, or 'love' toward each other. The corporeal 'desires' the incorporeal. The vision resembles the Aristotelian theory of matter's 'appetite' for form, except that in Van Helmont's view there is no necessary progression of matter toward form: the two remain constant and unchangeable in essence. This view, Van Helmont thinks, is Christian in essence, since it posits the equal dignity of matter and spirit.

²⁷⁴ Van Helmont, 'The Author Promises', p. 5, 'Promissa authoris', p. 8: 'Christiani sane, profiteamur Dominum Iesum, unicam Patris sapientiam, omnis essentiae, veritatis & cognitionis α & ω '; *Opuscula medica inaudita*, 'A Treatise of the Disease of the Stone', chap. 1, p. 832, 'Tractatus de Lithiasi', chap. 1, 'Petrificatio', p. 663.

4.2.1. Van Helmont's View of Nature

4.2.1.1. A Voluntarist Definition of Nature

Van Helmont's voluntarist understanding of God as omnipotent architect of creation had a major repercussion on the way he viewed Nature. Nature, he says, is 'the command of God whereby a thing is that which it is, and doth what it is commanded to do'.²⁷⁵ This definition of Nature, presented as proof of Van Helmont's orthodox views, requires further explanation.²⁷⁶

First of all, it is important to realise that in this definition Van Helmont refers to Nature as *physis*, an intelligent principle, a source of order and motion.²⁷⁷ In fact, Van Helmont points out that Nature should not be confused with the Aristotelian *prima materia*, *hyle*, which he rejects as fictional. Instead, Nature is simply 'order' and 'life', a principle of organisation that makes the universe a 'cosmos' rather than 'chaos'.²⁷⁸ This idea is clearly articulated in Aristotle, of course, but Van Helmont may have also had Hippocrates's *physis* in mind when formulating it. He often repeats Hippocrates's statement that 'Nature is her own physician', which to him means that Nature has an uncanny strength to restore harmony within a vitiated body.²⁷⁹

The view of Nature as inner *physis* was strongly upheld by the early modern alchemical philosophers. Paracelsus viewed Nature as a vital invisible force that shaped and produced the visible universe. He considered that 'Nature is replete with wisdom'.²⁸⁰ Joseph Du Chesne, in turn, defined Nature as 'the divine virtue, which God

²⁷⁵ Van Helmont, chap. 23, 'Nature is Ignorant of Contraries', p. 171, 'Natura contrariorum nescia', p. 140, 'Natura jussus est ille Dei, quo res est id, quod est, & agit, quod agere jussa est.'

²⁷⁶ Emerson, 'Creation in the Thought', p. 87. See above in chapter 1 my discussion of Emerson's views of Van Helmont as orthodox Augustinian thinker.

²⁷⁷ Robin George Collingwood, *The Idea of Nature* (Oxford: Oxford University Press, 1960), p. 3. For a good overview of the concept of Nature in the Middle Ages and Renaissance, see also Kurt Goldammer, *Der Göttliche Magier und die Magierin Natur* (Stuttgart: Franz Steiner Verlag, 1991), pp. 10-11, n. 3-4.

²⁷⁸ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27. Of course, Aristotle would have concurred with this view; since he stated that 'Nature is everywhere a cause of order', 'Physics', in *The Complete Works of Aristotle*, 2 vols (Princeton: Princeton University Press, 1984), I, VIII, I, 252a12, 17; on his views of Nature, see Helen S. Lang, *The Order of Nature in Aristotle's Physics* (Cambridge: Cambridge University Press, 1998), especially chapter 1 and 8.

²⁷⁹ Van Helmont, chap. 23, 'Nature is ignorant of contraries', p. 172, 'Natura contrariorum nescia', p. 142; chap. 58, 'A Reason or Consideration of Food or Diet', p. 453, 'Victus ratio', p. 364. On Hippocrates's notion of *physis*, see also Heinrich von Staden, 'Physis and Techné in Greek Medicine', *The Artificial and the Natural: an Evolving Polarity*, ed. by Bernadette Bensaude-Vincent and William Newman (Cambridge, MA: MIT, 2007), pp. 21-51.

²⁸⁰ Paracelsus, 'Paragranum', in *Paracelsus: Essential Theoretical Writings*, p. 149.

hath put and implanted in all creatures'.²⁸¹ He expressed a lofty view of Nature as akin to God: 'Nature, next under God, ought to be religiously esteemed, thought of, enquired, and searched for.'²⁸² Fludd described infinite Nature as 'a Spirit immense, ineffable, unintelligible, above all imagination and essence'.²⁸³

At the same time, Van Helmont's definition of Nature must also be perceived in the context of an early modern reaction to what some intellectuals saw as a 'pagan' trend of 'divinising' Nature in the Renaissance. Such tendencies were opposed by a 'Christianising' view that sought to distinguish Nature from God as secondary, created and hence inferior. This was prominent with Van Helmont's friend Gassendi and culminated with Robert Boyle's 'Free Enquiry in the Vulgarly Conceived Notion of Nature'.²⁸⁴

In turn, Van Helmont's view of Nature reflects his own voluntarist tendencies and project of creating a truly Christian philosophy. There is no doubt in Van Helmont's mind that, in accordance with the Bible and Christian doctrine, all things were created *ex nihilo*.²⁸⁵ For him, Nature is not God, but his instrument; it is doing what He had assigned it to do. As created out of nothing, it can be easily reduced to nothing.²⁸⁶ Hence it is completely subordinate to divinity, obeying God's will. In an elaborate dream he describes at the beginning of the treatise 'Power of Medicines' ('Potestas medicaminum'), Van Helmont allegorically imagines Nature to be the 'footstool' on which God rests His feet.²⁸⁷ Moreover, he underlines, Nature by itself is unable to confer form, life or individuation upon itself; all these comes from God in virtue of being 'Father of Lights'.²⁸⁸

²⁸¹ Du Chesne, *The Practice of Chymicall and Hermeticall Physick*, chap.2, p. [6].

²⁸² Du Chesne, *The Practise of Chymicall and Hermeticall Physick*, chap. 2, p. [5].

²⁸³ Fludd, *Utriusque cosmi historia*, I, 'De Macrocosmi historia', p.19. Fludd and Du Chesne, much more accommodating to Scholasticism, draw on the medieval distinction between *natura naturans* and *natura naturata*, with their attention being focussed on the first term.

²⁸⁴ The influence of voluntarist theology in the thought of Pierre Gassendi and Robert Boyle was analysed by Margaret Osler, 'The Intellectual Sources of Robert Boyle's Philosophy of Nature: Gassendi's Voluntarism and Boyle's Physico-Theological Project', in *Philosophy, Science and Religion in England, 1640-1700*, ed. by Richard Kroll, Richard Ashcraft and Perez Zagorin (Cambridge: Cambridge University Press, 1992), pp. 178-198.

²⁸⁵ I have noted above, under 4.1.4 that he was eager to dispel any doubts that he was advocating the eternity of the world, as Paracelsus's spurious work, *Philosophia ad Atheniensis*, was accused to have done.

²⁸⁶ Van Helmont, chap. 15, 'The Vacuum of Nature', p. 86, 'Vacuum naturae', p. 71: 'quam proprie nihil tota est natura, quae ex nihilo incepit.'

²⁸⁷ Van Helmont, chap. 60, 'The Power of Medicines', p. 471, 'Potestas medicaminum', p. 377.

²⁸⁸ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 147, 'Ortus formarum', p. 120: 'Nam natura non valet unquam ex se, ad vitalis luminis procreationem ascendere'; see also Van Helmont, chap 21, 'The Birth or Originall of Forms', p. 144, 'Ortus formarum', p. 117. See further on this 4.2.3.2 Formal or Vital Lights.

Van Helmont rejects any possibility that there may be beings, bodies, or principles that could act outside of God's jurisdiction: 'For truly, created things do always respect the will of their Creator, which man alone neglecteth.'²⁸⁹ As he emphasises on several occasions, 'Every thing acteth even as it is commanded to act', and 'all particular things do purely operate by a reflexion of their own appointment, according to the ordaining will of their Creator'.²⁹⁰

Expressed in these terms, Van Helmont's conception of Nature seems to accommodate a mechanistic view of the Universe. Yet Descartes's definition of Nature as *res extensa* would have been foreign to Van Helmont, for whom Nature is fundamentally a principle of order, not a spatial concept. The Helmontian view also completely eliminates the possibility that Nature is dead, or inanimate. On the contrary, everything within it is alive and possessed by a desire to obey her Maker: 'Nature rejoiceth in ordinary Motions and is accustomed unto them, and is willingly governed by a Unity of the motive virtue'.²⁹¹ This is in fact a natural inclination that springs from within creatures, an aspect that the middle Van Helmont had explained in *De magnetica* by the example of the magnet. As he argues, it is not the Pole that coerces a magnet to point north; instead, the magnet is driven towards it by an inner desire of obedience.²⁹² In other words, everything in Nature wants what God wants.

By virtue of its close relationship with God, Nature too must be esteemed and respected. Van Helmont disagrees with views that seek to diminish the dignity of Nature. First, he denounces the arrogance of the 'Schools' which seek to force Nature to be what they wish it to be.²⁹³ Such presumption is shown in the tendency towards mathematising Nature; he believes that this is a way of forcing a rational dimension on it. Van Helmont points out, 'man doth not measure Nature; but she him'.²⁹⁴ Secondly, Van Helmont also disagrees with those alchemists who think Nature always needs perfecting. Arrogantly assuming that Nature always needs human help encroaches on

²⁸⁹ Van Helmont, chap. 13, 'Gas of the Water', p. 77, 'Gas Aquae', p. 65: 'Creatura nimirum perpetim respiciunt voluntatem sui Creatoris, quam solus homo negligit.'

²⁹⁰ Van Helmont, chap. 23, 'Nature is Ignorant of Contraries', p. 170, 'Natura contrariorum nescia', p. 139: 'Agit propterea res quaeque prout est agere jussa'; chap. 42, 'An Unknown Action of Government', p. 329, 'Ignota actio regiminis', p. 265.

²⁹¹ Van Helmont, chap. 89, 'Of Time', p. 643, 'De Tempore', p. 510.

²⁹² Van Helmont, chap. 112, 'Of the Magnetick or Attractive Curing of Wounds', p. 775, 'De magnetica vulnerum curatione', p. 606.

²⁹³ There are numerous examples of his condemnation of the 'Schools', for instance Van Helmont, chap. 24, 'Blas of Man', p. 176, 'Blas humanum', p. 144, or Van Helmont, *Opuscula medica inaudita*, 'A Treatise of the Disease of the Stone', chap. 7, 'Duelech Dissolved', p. 873, 'Tractatus de Lithiasi', chap. 7, 'Duelech resolutum', p. 692.

²⁹⁴ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 34, 'Causae et initia naturalium', p. 32: 'homo enim non naturam metitur: sed ipsa se'.

Van Helmont's definition of it as life and order; Nature has an uncanny ability to grow and improve itself with no human help.²⁹⁵ Although Van Helmont wholeheartedly supports alchemical medicine, he argues that this should only be given when Nature's powers are exhausted. In accordance with the Hippocratic edict that Nature is her own physician, Van Helmont believes that she can often overcome diseases and restore herself with no outside help.²⁹⁶ Interestingly, even this idea may have been initially borrowed by Van Helmont from Paracelsus, who likewise recommended that Nature should be allowed to heal herself rather than be exposed to harsh cures.²⁹⁷

4.2.1.2. *Universal Harmony in Nature*

To understand Creation, Van Helmont goes back to Genesis 1:31 where it is stated: 'And God saw that whatsoever things he had made, were good'.²⁹⁸ Armed with this Biblical authority, he similarly concludes that all Creation is 'good' in essence, and that there is 'Unity and concord of nature' which reflects the nature of God Himself.²⁹⁹ Since God created Nature from nothing, He imprinted His own character of divine goodness in it. Hence even poisons are 'good in themselves and for their ends'.³⁰⁰

Consequently, Van Helmont is eager to denounce any idea of opposition in Nature. There can be no real hostility between things, as this would imply 'a great and continuall evil' coming from God Himself, who is nothing but goodness.³⁰¹ Van Helmont is particularly discontent with the idea of strife between the elements, as propounded by the Aristotelians Scholastics and Galenists of his era. The concept of

²⁹⁵ Van Helmont, chap. 23, 'Nature is ignorant of contraries', p. 172, 'Natura contrariorum nescia', p. 142.

²⁹⁶ Van Helmont, chap. 23, 'Nature is ignorant of contraries', p. 172, 'Natura contrariorum nescia', p. 142; chap. 58, 'A Reason or Consideration of Food or Diet', p. 453, 'Victus ratio', p. 364.

²⁹⁷ Weeks, *Paracelsus: Speculative Theory*, p. 135. However, there is a difference in the target of their criticism: Paracelsus addresses it against Galenists, while Van Helmont here attacks alchemists.

²⁹⁸ Van Helmont, chap. 23, 'Nature is Ignorant of Contraries', p. 173, 'Natura contrariorum nescia', p. 142; ('De Spadanis fontibus'), chap. 99, 'A Sixth Paradox', p. 702, 'Paradoxum sextum', p. 555; originally in Genesis 1:31.

²⁹⁹ Van Helmont, chap. 23, 'Nature is Ignorant of Contraries', p. 170, 'Natura contrariorum nescia', p. 139.

³⁰⁰ Van Helmont, chap. 59, 'A Modern Pharmacopolion and Dispensatory', p. 464, 'Pharmacopolion ac Dispensatorium modernum', p. 373.

³⁰¹ Van Helmont, chap. 23, 'Nature is Ignorant of Contraries', p. 167, 'Natura contrariorum nescia', p. 136. Interestingly, Alice Browne notes that, in denying contraries, Van Helmont 'treats contrarieties anthropomorphically' 'J.B. van Helmont's Attack on Aristotle', *Annals of Science* 36 (1979), 575-591 (p. 579). This is true to some extent, but untrue in others: while Van Helmont tends to envision God and by extension Nature anthropomorphically, he explicitly rejects the extension of rational principles to Nature.

strife and war goes entirely against his view of the world as being the product of the unitary mind of God.³⁰²

Thus, although elements may be different in action, this does not mean they are contradictory or at war: 'For the blessed Parent of Nature would not that the Elements should be hostilely opposite and applied, that they should breathe forth mutuall destruction and devouring continually'.³⁰³ Since God created the universe in His own image, the result could only be an orderly and harmonious Nature: 'the Father of the Universe, being a lover of Concord, hateth discord and brawlings, and chiefly in the *Elements*'.³⁰⁴

Van Helmont argues that the idea of contrariness in Nature has no ontological reality, being rather a projection of the human mind, which after the Fall was tainted by hostility and strife. People have imagined that their own wars and animosity were reflected in Nature, so that 'men might excuse their own angry contrariety, and might apply it to things that want it'.³⁰⁵ This projection, Van Helmont suggests, happens both at an unconscious and a conscious level, as people seek to justify their own aggressiveness. Yet by doing so, people implicitly accuse God of being the 'Maker and Favourer of hatred and brawlings', which is preposterous.³⁰⁶ In reality, poison, the spittle of a mad dog, or the serpent bite do not harm human beings by contrariety, but by simply doing what God has commanded them to do from the beginning of time.³⁰⁷

Ideas of universal harmony were current in Van Helmont's time, being one of the strongest legacies of Renaissance thought. It was a mainstay of alchemical philosophers such as Severinus, Du Chesne and Robert Fludd, and was also upheld by Johannes Kepler and Marin Mersenne, despite their quarrel with Fludd.³⁰⁸ Van Helmont was in line with the philosophers of his time, except he was less interested in discussing mathematical and musical harmonies and expressed his views in general terms.

³⁰² Van Helmont, chap. 23, 'Nature is Ignorant of Contraries', p. 165, 'Natura contrariorum nescia', p. 134.

³⁰³ Van Helmont, chap. 13, 'The Gas of the Water', p. 77, 'Gas Aquae', p. 64: 'Non voluit enim benedictus Naturae Parens, quod elementa hostiliter essent opposita & apposite, mutuam perniciem, & voracitatem perpetuo anhelarent'.

³⁰⁴ Van Helmont, chap. 9, 'The Earth', pp. 51-52, 'Terra', pp. 45-46.

³⁰⁵ Van Helmont, chap. 23, 'Nature is Ignorant of Contraries', p. 176, 'Natura contrariorum nescia', p. 144.

³⁰⁶ Van Helmont, chap. 23, 'Nature is Ignorant of Contraries', p. 169, 'Natura contrariorum nescia', p. 138.

³⁰⁷ Van Helmont, chap. 23, 'Nature is Ignorant of Contraries', p. 174, 'Natura contrariorum nescia', p. 144.

³⁰⁸ Robert Westman, 'Nature, Art and Psyche: Jung, Pauli and the Kepler-Fludd Polemic', in *Occult and Scientific Mentalities in the Renaissance*, ed. by Brian Vickers (Cambridge: Cambridge University Press, 1984), pp. 177-229; Peter Dear, *Mersenne and the Learning of the Schools* (London: Cornell University Press, 1988), pp. 109-116.

4.2.1.3. *Dualism of Matter and Principle*

In Van Helmont's view, matter is different from Nature, as it cannot create or produce anything. The Flemish philosopher condemns Aristotle for arguing that 'matter might be principiating' and that 'a motive principle did agree or belong to it'.³⁰⁹ On the contrary, matter in itself is incapable of change, which can only be caused by the intention of the *semina*.³¹⁰ Van Helmont describes it as 'empty, void, dead, and slow, unless it hath been constituted, or sometimes be constituted by a vitall, or seminal Principle present with it'.³¹¹

This conclusion reflects Van Helmont's reading of Genesis 1:2, which states that 'the earth was without form, and void; and darkness [was] upon the face of the deep. And the Spirit of God moved upon the face of the waters.'³¹² The Hebrew term *tohu-va-bohu*, usually indicates emptiness, void, waste, and could be interpreted to describe the primeval form of matter, shaped through the intervention of the *Ruach-Elohim*, the spirit of God. Thus, Genesis gave Van Helmont the conviction that matter in itself was inert and required the intervention of a principle to act within it.³¹³

Given matter's fundamental passivity, Van Helmont is eager to affirm the role of 'principles' (*initia* or *principia*), which can be described as engines of matter and dynamic agents. For Van Helmont, a principle bestows life, movement and order to matter.³¹⁴ Without it, all natural laws would fail.³¹⁵ Such a principle must by definition be spiritual; the principle of Nature cannot be *prima materia*.³¹⁶ He attributes this idea to Aristotle and observes that 'he confoundeth the Principle with the material cause'.³¹⁷

³⁰⁹ Van Helmont, chap. 22, 'Magnum Oportet', p. 150, 'Magnum oportet', p. 122.

³¹⁰ Van Helmont, chap. 22, 'Magnum Oportet', p. 151, 'Magnum oportet', p. 123.

³¹¹ Van Helmont, chap. 4, 'The Causes or Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27.

³¹² Genesis 1:2.

³¹³ Van Helmont, *Opuscula medica inaudita*, 'A Treatise of the Disease of the Stone', chap. 1, p. 830, 'Tractatus de Lithiasi', chap. 1, 'Petrificatio', pp. 650-651.

³¹⁴ Van Helmont, chap 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27: 'Resque omnis, inanis, vacua est, mortua, ac deses, nisi vitali, aut seminali adesse principio, fuerit constituta'.

³¹⁵ Van Helmont, chap 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27: 'Quinimo adhuc corruerent istae leges, nisi ordo quidam rebus inesset, & intercederet, qui propria flecteret, ad communis boni sustentationem, sive necessitates.'

³¹⁶ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27 '...non autem natura constat hyle indefinita, ac impossibili, neque opus habet principio tali, ut nec privatione'.

³¹⁷ Van Helmont, chap 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27: 'Quippe inprimis, principium, cum causa materiali, confundit.'

Instead, Van Helmont identifies the primeval principle from Genesis as being the Spirit of God hovering over the waters.³¹⁸

Van Helmont may have supported his dualist view from the Bible, but it was also a steadfast belief of alchemical philosophy at the turn of the seventeenth century. Paracelsus had already differentiated, albeit rather unclearly, between the elements, the three principles, the spirits and the *semina*.³¹⁹ His follower Petrus Severinus borrowed Paracelsian terminology, but systematised these entities in terms of more familiar Aristotelian and Neoplatonic categories. Norma Emerton argues that he equated Paracelsus's Archeus and *semina* with Aristotelian form, and that he was followed in this tendency by Daniel Sennert (1572-1637) and Van Helmont.³²⁰ Although her affirmation may be true in the case of Severinus and Sennert, it does not apply in the case of Van Helmont except in a very general sense, as will be shown below.

The tendency of differentiating matter and form became more pronounced at the turn of the century. Joseph Du Chesne classified the elements as being those things which 'more cleave and incline to Matter than to Forme', and are fundamentally 'passive'; by comparison, the *Semina* and *tria prima* 'come nearer to Forme, than to Matter' and are 'active'.³²¹ Duchesne did not base this analysis on Genesis, but his contemporary Timothy Willis (c. 1551-1627) did. Willis's *The Search of Causes*, published in 1616, contended that the Spirit of God hovering over the waters was fundamentally spiritual and active while the 'waters' below were passive.³²² As already pointed out, Van Helmont was familiar with Du Chesne's writings; although he may not have read Willis, the English philosopher's speculation was in line with the alchemical thought of the epoch.

³¹⁸ Van Helmont, *Opuscula medica inaudita*, 'A Treatise of the Disease of the Stone', chap. 1, p. 830, 'Tractatus de Lithiasi', chap. 1, 'Petrificatio', pp. 650-651.

³¹⁹ Paracelsus's matter theory has been a subject of much contention amongst scholars. For alternative views, see Daniel, 'Invisible Wombs', pp. 130-131. Daniel contends that seeds were more akin to form, see p. 131. However, there is a limit to which Paracelsus's ideas can be addressed from the point of view of Aristotelian, or even Neoplatonic perspective. Paracelsus seems to have been much more interested in the dichotomy of corporeal versus incorporeal, visible versus invisible, than matter versus spirit. Perhaps the kinship between the categories is best summarised by Charles Sherrington, in reference to Jean Fernel, observed that 'it was as though matter, poured out thin, lost some of its materiality', *The Endeavour of Jean Fernel* (Cambridge: Cambridge University Press, 1946) p. 81.

³²⁰ Norma Emerton, *The Scientific Interpretation of Form* (London: Cornell University Press, 1984), pp. 180-181. However, Emerton does not seem to understand the differences between gas, ferment, vital air and Archeus in Van Helmont, see *The Scientific Interpretation*, p. 181 where she conflates all of them under a vague heading of 'formative spirit'. Needless to say, that does no justice to the complexity of Van Helmont's thought.

³²¹ Du Chesne, *The Practise of Chymicall and Hermeticall Physicke*, chap.4. It is remarkable that Du Chesne considers the *tria prima* as being more spiritual than material.

³²² Timothy Willis, *The Search of Causes, containing a Theophsical Investigation of the Possibilitie of Transmutatorie Alchemie* (London: J. Legatt, 1616), pp. 9-11.

Van Helmont's duality of spirit and matter invites comparison with the views of his contemporary Descartes. However, Van Helmont's dualism is significantly different from that of the French philosopher. He believes that the spirit activates matter from within rather than outside (hence his criticism of Aristotle's efficient cause) and that matter cooperates in this process by accepting the action of spirit. In this sense, matter is 'passive' but not 'dead'.

Moreover, his valuation of passive matter differs significantly from that of the French philosopher. Thus, Van Helmont does not think in Aristotelian terms that passivity and lack of movement or change in matter are negative aspects. On the contrary, he believes that 'the desire of remaining is more antient, strong, and naturall than the desire of permutability or much changeableness'.³²³ The reason for this, from his perspective, is that 'being' is more basic than 'change', an idea which betrays a strong Platonic bias. Indeed, Van Helmont emphasises that all beings naturally seek to remain, and change only brings about their destruction.³²⁴ This is linked with the idea he emphasises elsewhere of self-love, *philautia* or the principle of conservation, which is natural in matter.³²⁵

Hence, Van Helmont's view of the world is dualist, but not in a Cartesian or strictly Platonic sense, and even less in a Gnostic-Manichaean sense. Where the tendencies of these are to deplore union with matter, and to separate matter and spirit rather starkly, Van Helmont seeks to reconcile them. The view is, of course, Christian, since it posits that the alliance of matter and soul is unbreakable and necessary. At the same time, Van Helmont's views also reflect traditional alchemical philosophy. As is well known, dualism stood at the core of the sulphur-mercury theory of Geber and was developed by Pseudo-Lull in terms of the philosophical categories of matter and spirit.³²⁶ Although the sulphur-mercury dualism had been modified into a ternary by Paracelsus, it was still influential in Van Helmont's time.³²⁷ Moreover, dualism is also inherently present in the alchemical idea of transmutation, which is essentially the transformation of a matter into another; this change was usually envisioned as being catalysed by a dynamic agent which was regarded as 'spiritual'. Like many alchemists, including Paracelsus, Van Helmont also viewed the dualist archetype in sexual terms:

³²³ Van Helmont, chap. 22, 'Magnum Oportet', p. 151, 'Magnum oportet', pp. 122-123: '... desiderium permanendi, antiquius, fortius, & naturalius sit, appetitu permutabilitatis'.

³²⁴ Van Helmont, chap. 22, 'Magnum Oportet', p. 151, 'Magnum oportet', p. 123.

³²⁵ See Giglioni, *Immaginazione e malattia*, pp. 55-56.

³²⁶ Pereira, *Oro dei filosofi*, p. 164.

³²⁷ As I have pointed out in chapter 3, Van Helmont knew the writings of both Geber and Pseudo-Lull.

the active Heaven is the ‘husband’ of the passive Earth.³²⁸ The union is achieved by love, and desire, which for Van Helmont stay at the core of everything that exists.

4.2.1.4. *The Criticism of Aristotelian Causes*

Van Helmont’s criticism of the Aristotelian causes, mainly contained in the treatise ‘The Causes or Beginnings of Natural Things’ (*‘Causae et initia naturalium’*), is highly important to an understanding of his natural philosophy. Here he articulates his dualist views of matter and spirit, the peculiar understanding of form as life and light, and the voluntarist perspective of God’s work in Nature.

In her perceptive analysis of Van Helmont’s attack on Aristotle, Alice Browne wonders whether his criticism should be read as ‘displaying knowledge of it in a parody way’ or as a ‘serious use of Aristotelian concepts against particular statements in Aristotelian science’.³²⁹ It is clear that Van Helmont uses both approaches, especially in the more polemical pieces. However, it also appears that, polemics aside, Van Helmont was either appreciative of or accustomed to the Aristotelian structure of thought.³³⁰ This is apparent in Van Helmont’s critique of Aristotelian causation. He does not actually reject the philosophical framework of causation, but its tenets, which in his mind are not suited for a Christian Philosophy. He hence attempts to reframe the terms of Aristotelian discourse in terms that reflect his own Christian and alchemical beliefs. In doing so, he appropriates those Aristotelian notions that have a strong explanatory power into his own system; thus, the Aristotelian scaffolding often props up the new philosophy he is proposing.³³¹

First, Van Helmont clarifies that causes refer only to ‘a Being subject to change’.³³² This effectively excludes immutable things, which to him are both Heaven and the Elements. These ‘constantly remain the same which they were from the

³²⁸ Van Helmont, chap. 10, ‘The Water’, p. 56, ‘Aqua’, p. 49: ‘...coelum, velut terrae maritus adaequatus...’

³²⁹ Browne, ‘J. B. Van Helmont’s Attack’, p. 584.

³³⁰ Alice Browne concludes by observing that Van Helmont’s attack was rather on Aristotle’s authority in the university, much more so than on the text of Aristotle, p 591.

³³¹ This is not unusual in the epoch. As noted in the chapter 2.2, Aristotle was being challenged by numerous philosophers but remained influential in debates. See also Charles Schmitt, *Aristotle in the Renaissance*, (Boston, MA: Harvard University Press, 1983), p. 27. However, we should not take this scaffolding for the content, as Pagel seems to do in his perspective of Van Helmont as Aristotelian vitalist. See my critique above, chapter 1.

³³² Van Helmont, chap. 4, ‘The Causes and Beginnings of Natural Things’, p. 28, ‘Causae et initia naturalium’, p. 27.

beginning'.³³³ The exclusion of the elements is part of his programme of affirming both their permanence and their unchanging nature, as will further be shown in section 4.2.2 Physical Nature.

Van Helmont also makes it clear from the beginning that God is the ultimate first cause of everything that exists. God is never very far, as He infuses 'the knowledge of ends and dispositions' into the natural efficient cause.³³⁴ Elsewhere Van Helmont underlines that God is always the 'principall, totall, and independent cause of our motion, and the originall thereof'.³³⁵ In other words, Van Helmont acknowledges that, although in many cases 'ordinary' (secondary) causes can be found to explain a certain phenomenon, behind these there is always the fundamental cause which is God.³³⁶

The Flemish philosopher's analysis of Aristotelian causes begins with the material cause, by which Van Helmont means the material source of individual beings. However, Van Helmont clarifies that Creation itself does not have a material cause, as it springs directly from God.³³⁷ However, in ordinary 'beings subject to change', the material cause is necessary to account for the generation of new beings.³³⁸ As it shall be further shown, the material cause is represented by the two elements, water and air, although only water acts as the origin of bodies.³³⁹

Aristotle's second cause, the formal cause, is severely criticised for similarly proposing that form is an active agent – a function which for Van Helmont can only be satisfied by a principle.³⁴⁰ He makes the following argument:

...the form of the thing composed, cannot be the cause of the thing produced: but rather the last perfect act of generation [*Entelechia*], and the veriest essence and perfection it self of the thing generated: for the attaining

³³³ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27.

³³⁴ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 29, 'Causae et initia naturalium', p. 28: 'Eo quod casuae efficienti naturali, sua a Deo naturaliter sit infusa finium & habitudinum scientia.'

³³⁵ Van Helmont, chap. 16, 'An Irregular Meteor', p. 89, 'Meteoron anomalum', p. 73: 'Est tamen altera principalis, totalis & independens causa nostri motus, & concurrit ejus origo'.

³³⁶ Van Helmont, chap. 16, 'An Irregular Meteor', p. 89, 'Meteoron anomalum', p. 73.

³³⁷ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27.

³³⁸ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27.

³³⁹ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 31, 'Causae et initia naturalium', p. 30.

³⁴⁰ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', p. 27.

whereof, all other things are directed. Therefore I meditate, the form to be rather as an effect, than a cause of the thing.³⁴¹

Hence, for Van Helmont the form is the result, or outcome, that is achieved through the intervention of a principle in matter. The form is Entelechy, which for Van Helmont is a type of blueprint that is established prior to generation and actualised by the Master Workman, the *Archeus*, the efficient internal agent.³⁴² As shall be seen, Van Helmont believes that form is essentially life, and also vital light.³⁴³ It can be understood as being 'passive', in the sense of being perfect, or in act.

The third Aristotelian cause, the efficient (moving) cause, the 'primary source of change or rest', is criticised primarily because it proposes an external source as the origin of motion.³⁴⁴ For Van Helmont, this is preposterous since all movement in fact originates from within: 'the whole efficient cause in Nature is after another manner, inward and essential.'³⁴⁵ In other words, the physical, procreating father is not the true efficient cause of an offspring, but a 'remote' cause; the true cause is the *semen* and the *Archeus*.³⁴⁶

Yet, the *Semina* and the *Archeus* cannot bestow life; this is given by God Himself as per Van Helmont's adoption of the theory of *dator formarum*.³⁴⁷ In respect to life and form, God is always the 'chief Efficient', the only one who can imprint a 'light' into the *semen*.³⁴⁸ Or, as Van Helmont explains it, 'God concurrereth to the generation of a Being, as the Universal, Independent, totall, essential, and efficiently efficient cause; but a created Being concurrereth, as the dependent, partial, particular, and dispositively efficient cause.'³⁴⁹

³⁴¹ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 28, 'Causae et initia naturalium', pp. 27-28: 'certe, forma composite, causa esse nequit producti; sed potius Entelechia ultima generationis, ipsissimaque generati essential, atque perfectio: propter cujus affectuionem, caetera cuncta diriguntur. Itaque formam, potius tanquam effectum, quam ut causam rei meditor.'

³⁴² For an explanation of the term *Archeus*, see below in chapter 'Spiritual Nature'.

³⁴³ See below, 4.2.3.2. The Formal or Vital Lights.

³⁴⁴ Aristotle, 'Generation of Animals', in *The Complete Works of Aristotle*, 2 vols (Princeton: Princeton University Press, 1984), I, 1.

³⁴⁵ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 29, 'Causae et initia naturalium', p. 28: 'Tota alioqui causa efficiens, est interna, essentialis, in natura'.

³⁴⁶ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 29, 'Causae et initia naturalium', p. 28.

³⁴⁷ See above, chap. 4.1.4. Van Helmont, chap. 16, p. 89. The distinction between the two kinds of efficient causes, the ultimate (God) and the second causes (physical entities) appears in Gassendi as well. Osler, *Divine Will*, pp. 49-50.

³⁴⁸ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 30, 'Causae et initia naturalium', p. 29.

³⁴⁹ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 132, 'Ortus formarum', pp. 107-108: 'Deus ergo, ad generationem entis, concurrat ut causa universalis, independens, totalis, essentialis, & efficienter efficiens; se dens creatum concurrat, ut causa dependens, partialis, particularis, & dispositive efficiens'. God as ultimate efficient cause was a medieval topos as well; see Nicholas H. Steneck, *Science and Creation in the Middle Ages: Henry of Langenstein (d. 1397) on Genesis* (London: University of

Finally, Van Helmont criticises Aristotle's fourth, or final cause for being separate from the efficient cause, while in fact it is not. The purpose of a body is already inscribed in the efficient cause, as he explains:

Since the efficient containeth all ends in it self, as it were the instructions of things to be done by it self, therefore the finall external cause of the Schooles, which onely hath place in artificial things, is altogether vain in Nature.³⁵⁰

This belief is correlated with Van Helmont's theory of the *semina*, which contain all the information needed to frame the individual before birth, as will be further explained below. The essence of his criticism of the final cause is that the 'efficient' and 'end' causes are one and the same. We should not take this to mean that he is thereby rejecting teleology in the style of mechanical philosophy; if anything, he seeks to reaffirm it in starker ways.³⁵¹ He simply wants to point out that God is both the efficient and final cause of things and that Nature and all beings simply obey his predestined plans.

Hence, Van Helmont proposes the removal of two of the Aristotelian causes (formative and final causes) in favour of the material and the internal efficient. This is done by attributing the efficient and final causes to the *semina* or Archeus, while the form is bestowed by God. As already noted, this perspective enhances the duality of matter and spirit by separating between the passive material receiver and the active agent, which contains all the information needed to shape and order the world. It also attributes an important, immediate role to God as the bestower of life or form on the body.

Notre Dame Press, 1976), p. 92. However, the common understanding was that His will was done by means of the heavenly bodies.

³⁵⁰ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 29, 'Causae et initia naturalium', p. 28: 'Fines denique cum omneefficiens in se contineat, tanquam rerum a se agendarum instructions, ideo finalis causa Scholarum externa, quae duntaxat in artificialibus locum habet, vana prorsus est in natura.'

³⁵¹ On the mechanical philosophy's rejection of teleology, see, for instance, Jeffrey K. McDonough, 'The Heyday of Teleology and Early Modern Philosophy', *Midwest Studies in Philosophy*, 35 (2011), 179-204.

4.2.2. Physical Nature

4.2.2.1. *Genesis and the Elements*

Van Helmont's understanding of the elements is drawn from his reading of Genesis 1. In doing this, he joins a long and distinguished line of Christian commentators on the Book of Genesis. This 'hexameral' tradition had begun in Late Antiquity and extended up to Van Helmont's day.³⁵²

The Paracelsian philosophers were particularly drawn to the analysis of Genesis, which they sought to elucidate in alchemical terms.³⁵³ This tradition was based, as always, on Paracelsus's ambiguous writings. The possibly spurious *Philosophia ad Atheniensis* was considered a fountainhead for the alchemical interpretation of Genesis, as it portrayed God creating the world in an alchemical manner, through separation (*Scheidung*). However, it was Gerhard Dorn (1530-1584)'s engagement with Genesis that set the tone for the vogue of the alchemical interpretation of Creation. His lead was followed by numerous other Paracelsians, including Robert Bostocke, Joseph Du Chesne, Timothy Willis, Franciscus Kieser (fl 1606) and Robert Fludd.³⁵⁴ The ability of interpreting Genesis alchemically was considered a key aspect in the Paracelsian attempt to reform knowledge in Christian terms.

Van Helmont also set great store by Biblical interpretation, and particularly by his reading of Genesis. In chapter 2.2.2, I have already shown that the middle Van Helmont was already keen on performing alchemical exegeses of the Bible in 'De Spadanis'. The late Van Helmont concurred not only with the approach, but generally with its result as well. Indeed, his physical interpretation of the account of Creation must be considered fundamental to his Christian Philosophy: it was the cornerstone on which he based his

³⁵² For a review of the hexameral tradition in Late Antique and the early Middle Ages, see Grant, *Science and Religion: 400 BC – AD 1500*, pp. 114-137; also P. Nautin, 'Genese, 1, 1-2, de Justin à Origène', in *In principio. Interpretations des premiers versets de la Genèse* (Paris: Centre d'Etudes des religions du livre, 1973), pp. 61-94. In the late sixteenth century the most popular hexameral commentary was that by Benito Pereira; see William Poole, 'Francis Lodwick's Creation: Theology and Natural Philosophy in the Early Royal Society', *Journal of the History of Ideas*, 66:2 (2005), 245-263 (p. 256).

³⁵³ This was first signalled by Allen Debus in his *The Chemical Philosophy*, p. 56. See also my upcoming article, 'The Mystery of *Mysterium Magnum*: Paracelsus's Interpretation of Creation in *Philosophia ad Atheniensis* and its Early Modern Commentators' in *Esoteric Interpretations of Genesis 1* (Semeia Studies, forthcoming).

³⁵⁴ See my upcoming article, as well as Michael T. Walton, 'Genesis and Chemistry in the Sixteenth Century', in *Reading the Book of Nature*, ed. by Allen G. Debus and Michael T. Walton (Kirkville, IL: Truman State, 1998), pp. 1-14; Peter J. Forshaw, 'Vitriolic Reactions: Orthodox Responses to the Alchemical Exegesis of Genesis', in *The Word and the World: Biblical Exegesis and Early Modern Science*, ed. by Kevin Killeen & Peter J. Forshaw (Basingstoke: Palgrave Macmillan, 2007), pp. 111-136, and Didier Kahn's 'L'interprétation alchimique de la Genèse chez Joseph Du Chesne', pp. 641-692.

theory of matter. He strongly believed that ‘elementary matter’ was the primordial substance that God created before the first day.³⁵⁵

Late Van Helmont’s exegesis in *Ortus medicinae* begins by noting that the Heaven (*Coelum*) and the Earth (*terra*) were made *in principio*, prior to the first day.³⁵⁶ He argues that the term ‘Heaven’ must be read metaphorically, and correlates it with the sudden mention of ‘waters’ in the same verse. Moving on to Genesis 1:6, Van Helmont finds more proof for the relationship of ‘waters’ with ‘Heaven’.³⁵⁷ He observes that water is never mentioned as being created, so he concludes that its presence was initially hidden under the word ‘heaven’.³⁵⁸ This reading is further strengthened, he believes, by the dual mention of the ‘face of the deep’ (in Hebrew, *tehom*) and ‘face of the waters’ in Genesis 1:2. This deep (*abyssus*) referred to the confused mixture of waters above and below Heaven.³⁵⁹

Van Helmont enhances his argument with a reference to the Hebrew text. He observes that ‘the Heaven, with the *Hebrews*, soundeth, [where there are waters.]’.³⁶⁰ The Hebrew word for heaven is *schamayim* (שמים). This mysterious term was the subject of intensive speculation by Christian Cabalists during the Renaissance. The most prevalent interpretation, drawing on the Jewish *Midrash Bereshith Rabba*, was that *schamayim* was a composite word from *esh* (fire) and *mayim* (water), suggesting that the heaven was originally made up of a composite fire-water.³⁶¹ This opinion was upheld in the early modern period by Johannes Reuchlin, Heinrich Khunrath and Johann Heinrich Alsted.³⁶² Yet Van Helmont refused to follow suit, choosing instead the

³⁵⁵ Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 42.

³⁵⁶ According to Genesis 1:1-2, ‘In the beginning God created the heaven and the earth. And the earth was without form and void; and darkness [was] upon the face of the deep. And the Spirit of God moved upon the face of the waters.’ I am using the King James Bible version for the English language account. In Latin, ‘in principio creavit Deus caelum et terram; terra autem erat inanis et vacua et tenebrae super faciem abyssi et spiritus ferebatur super aquas’ (*Biblia Sacra Vulgata*).

³⁵⁷ Genesis 1:6 – 1:8: And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters. And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so. And God called the firmament Heaven. In Latin: ‘dixit quoque Deus fiat firmamentum in medio aquarum et dividat aquas ab aquis; et fecit Deus firmamentum divisitque aquas quae errant sub firmament ab his quae errant super firmamentum et factum est ita; vocavitque Deus firmamentum caelum et factum est’.

³⁵⁸ Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 42: ‘Conspicuum hinc est itaque, quod ante primum diem, jam aquae ab initio essent creatae, coelestis cujusdam indolis participes, eo quod sub coeli etymo occultarentur.’

³⁵⁹ Ibid, ‘quodque ista abyssus aquas denotaret: eo quod tum adhuc, omnes supercoelestes aquae, nostris connexae, super terram, incomprehensibilis profunditatis abyssum facerent’.

³⁶⁰ Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 42: ‘ideoque Coelum Ebraeis (ubi sunt aquae) sonat’.

³⁶¹ *Midrash Bereshith Rabba in Hebrew and English* (Jerusalem: Shalom Publications, 1988), 1:31.

³⁶² Johannes Reuchlin, *On the Art of the Kabbalah*, trans. by Martin and Sarah Goodman (Lincoln, NA: Abaris Books, 1983), p. 99; Heinrich Khunrath, *Vom Hylealischen...Chaos* (Magdeburg: Johann Francken, 1616), p. 39; *Amphitheatrum Sapientiae Aeternae* (Hanau: Wilhelm Anton, 1609), p. 129, Johann Heinrich Alsted, *Lexicon theologicum* (Hanover: Eifridus, 1634), p. 108.

alternative explanation that *schamayim* stood for *schom-mayim*, meaning ‘there are waters’.³⁶³

Based on this interpretation, Van Helmont believes that the initial substance of creation was water. This heavenly water was both above and below, hence the lower waters of the earth are, and continue to be, akin to the heavenly ones.³⁶⁴ Consequently, Van Helmont deems water to be the first element and the fundamental matter of all things.

Van Helmont proceeds with his analysis of Genesis 1:1 by affirming that the Heaven is superior to the Earth, presumably because it is mentioned first in the text.³⁶⁵ By extension, the element water is also superior to earth, being simpler and more heavenly.³⁶⁶

Van Helmont further adds that *schamayim*, the original Heaven, also signified air.³⁶⁷ Although he does not as clearly explain how he etymologically derived ‘air’ from *schamayim*, he may have been aware that the Hebrew version of Genesis 1:26 also uses *schamayim* to signify air.³⁶⁸ It is also a logical conclusion, given that Van Helmont deems ‘water’ the matter of Heaven, and must also account for the empty space between the waters, which he calls air, *aether* or *aura vitalis*.³⁶⁹

Air and water are, then, the two primordial elements out of which everything else originated.³⁷⁰ Van Helmont strives to prove that the other two elements, earth and fire, cannot be ranked as elementary matter. Fire, he insists, is never mentioned in the Genesis account as being created; therefore, it cannot be a true element as Aristotle affirmed.³⁷¹ He equally rejects Paracelsus’s explanation that fire appears in the Genesis account in the form of light and stars, and consequently can be deemed a superlunary

³⁶³ Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘the Heaven, with the *Hebrews*, soundeth, [where there are waters.]’, ‘Elementa’, p. 43: ‘Coelum Ebraeis (ubi sunt aquae) sonat’. Did Van Helmont know Hebrew? He seems to imply this; however, he may have also extracted this type of ideas from Christian Cabalists, so no certain verdict can be given. Indeed, the term *schamayim* was rather common amongst alchemists and Christian Cabalists, but it did not mean they all knew Hebrew.

³⁶⁴ Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 43: ‘In Coelo autem continebantur aquae, non autem in terra; hinc aquas, nobiliores terra existimo: Imo aquam, esse puriorem, simpliciore, indivisibilem, constantiorem, principio viciniorem, sortisque coelestis magis participem, quam sit terra’.

³⁶⁵ It appears that Van Helmont read ‘the heavens and the earth’ as meaning ‘the heavens and then, the earth’.

³⁶⁶ Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 43.

³⁶⁷ Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 43; see also, chap. 12, ‘The Gas of the Water’, p. 72, ‘Gas aquae’, p. 60.

³⁶⁸ Genesis 1:26.

³⁶⁹ Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 43: ‘Aeternus itaque, voluit Coelum continere aquas supra se, & aliquid adhuc amplius, (propter quod Coelum vocatur), quod aerem, aethera, sive vitalem auram dicimus.’

³⁷⁰ Van Helmont calls them ‘primigenia’, primogenitures to emphasise their superiority to the earth. Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 43.

³⁷¹ Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 43.

element.³⁷² His rejection is linked with his belief that an element must have been ‘first-born’ (*primigenius*); that is, framed *ab initio*, before the first day.

Based on his reading of Genesis, Van Helmont had already demoted Earth as being inferior to water and air. He now goes further and appeals to his alchemical knowledge to demonstrate that Earth is not a primordial element at all.³⁷³ His ‘art of fire’ (*pyrotechnia*) shows that all things, including minerals, earth and metals can be transformed into water by the means of the Circulate Salt of Paracelsus or the Alkahest.³⁷⁴ Indeed, the Earth is nothing but ‘a fruit of the water’.³⁷⁵

Interestingly, Van Helmont considers that this knowledge acquired in the laboratory complements his reading of Genesis: ‘I have learned therefore by the fire, that God before there was a day, created the Water and Air, and of the Water an Elementary Earth, which is the Sand *Quellem*’.³⁷⁶ Knowledge *per ignem* both supports and enhances the interpretation of Genesis. In other words, alchemy can act as a key to the Scriptures. We hence see here a prime example of how Van Helmont conceived the Book of Nature to be in harmony with the Book of Grace.

However, there was one difficulty to this process of harmonisation, which he addresses in the treatise ‘The Fiction of Elementary Complexions and Mixtures’. Here he acknowledges that the Scriptures read of man ‘Thou art Earth and into Earth thou shalt go.’³⁷⁷ However, he argues that this does not necessarily mean that bodies are made of earth, but that they resemble more closely earth than water. Moreover, he affirms that by earth the Bible means a secondary element ‘co-agulated of water’.³⁷⁸ This is not a very convincing argument, but it highlights the fact that Van Helmont is determined to affirm the unity of the Book of Scripture with that of Nature. In practice,

³⁷² Van Helmont, chap. 8, ‘The Elements’, p. 48, ‘Elementa’, p. 43: ‘Nec item cum Paracelso, licet luminarium & stellarum nomine ignem, supralunare elementum agnoscere, ut neque ab initio conditum: quod tamen esset necessarium, si elementi sortem referre debebat.’

³⁷³ Van Helmont, chap. 8, ‘The Elements’, p. 49, ‘Elementa’, p. 43: ‘Nostra namque mechanica mihi patefacit, omne corpus...transmutari in sale actualementem, aequiponderantem suo corpori, unde factus est...tandem transmutetur in liquorem, qui etiam tandem in aquam insipidam transit, & quod aqua ista, aequiponderet Sali suo, unde manavit’.

³⁷⁴ Van Helmont, chap. 8, ‘The Elements’, pp. 48-49, ‘Elementa’, p. 43.

³⁷⁵ Van Helmont, chap. 12, ‘An Essay of a Meteor’, p. 66, ‘Progymnasma meteorii’, p. 57.

³⁷⁶ Van Helmont, chap. 8, ‘The Elements’, p. 49, ‘Elementa’, p. 43: ‘Didici ergo per ignem, quod Deus, ante diem, creaverit aquam & aerem, & ex aqua terram elementalem, quae est arena *Quellem*.’

³⁷⁷ Van Helmont, chap. 18, ‘The Fiction of Elementary Complexions and Mixtures’, p. 110, ‘Complexionum atque mistionum’, p. 90. See Genesis 3:19: ‘for dust thou [art], and unto dust shalt thou return.’

³⁷⁸ Van Helmont, chap. 18, ‘The Fiction of Elementary Complexions and Mixtures’, p. 110, ‘Complexionum atque mistionum’, p. 90: ‘Nimirum quod terra non sit in Sacris primum elementum: sed quodvis coagulatum ex aqua terra dicitur, eo quod plus per sui consistentiam, terrae assimiletur quam aquae’.

this means that at times he is prepared to understand the Bible metaphorically, going beyond a simple and literal reading of it.

Given Van Helmont's understanding of the book of Genesis, we may now summarise what he considered a true 'element' to be. First, he thought that elements must have been created before the first day of Genesis, and secondly, that they should be first-born in the order of Creation. Van Helmont also construes from the Genesis account that the elements are material. Water and air are *corpora*; in fact, for Van Helmont the very term element is associated with materiality.³⁷⁹ This clear delineation of matter from spirit is in line with the duality we have noticed in Van Helmont's view of Nature.³⁸⁰

Moreover, Van Helmont understands the primordial character of the elements (*primigenius*) to mean that they must be simple and indestructible,³⁸¹ as they were appointed by God to bestow constancy upon the Universe.³⁸² This view of elements leads him to a theory of the conservation of matter.³⁸³ Thus, he affirms that 'the water which existed from the beginning of the Universe is the same, and not diminished, and shall be so unto the end thereof'.³⁸⁴ This implies that elements can change appearance under the force of heat or cold, but cannot suffer a formal transformation; thus, as Van Helmont observes, 'neither could the hundredth extenuation of the same exhalation [vapour] more transchange [transmute] the water than the first.'³⁸⁵ This is because the elements resist fundamental change by adjusting themselves to the pressure of heat or cold.³⁸⁶ The situation is entirely different in the case of bodies, which can change their substance easily.³⁸⁷

³⁷⁹ Van Helmont, chap. 12, 'Essay of a Meteor', p. 65, 'Progymnasma meteor', p. 56: 'Elementa vero, sunt corpora, non autem spiritus'.

³⁸⁰ See above, 4.2.1.3.

³⁸¹ Van Helmont, chap. 12, 'Essay of a Meteor', p. 65, 'Progymnasma meteor', p. 55: 'Defineret namque elementum esse corpus simplex, si in aliquod prius, aut simplicius, sit separabile.'

³⁸² Van Helmont, chap. 12, 'The Essay of a Meteor', p. 64, 'Progymnasma meteor', p. 55: '...in simplex elementum, a rerum Domino, ad constantiam universi destinatum'.

³⁸³ The law of conservation of matter was enounced in modern form by Lavoisier. Was Lavoisier influenced by Van Helmont? It is known that Lavoisier had a very high opinion of Van Helmont and read him closely. We should note that J.R. Partington has called Van Helmont's idea 'the law of the indestructibility of matter'; Joan Baptista', p. 368.

³⁸⁴ Van Helmont, chap. 13, 'The Gas of the Water', p. 74, 'Gas Aquae', p. 63: 'Sicque eadem, & non imminuta aqua quae ab initio universi, extrastitit est; eritque in eius finem.' This principle of conservation stood as the conceptual root of the idea of mass balance mentioned by Newman and Principe in *Alchemy Tried in the Fire* (see above chapter 1). We can thus see that it was not simply an automatic transposition of metallurgical techniques, but Van Helmont had a theoretical basis for doing so.

³⁸⁵ Van Helmont, chap. 12, 'The Essay of a Meteor', p. 64, 'Progymnasma meteor', p. 55: 'Nec enim centesima ejusdem halitus extenuatio, plus poterit aquam transmutare, quam prima.'

³⁸⁶ Van Helmont, chap. 13, 'The Gas of the Water', p. 72, 'Gas aquae', p. 60.

³⁸⁷ Van Helmont, chap. 12, 'The Essay of a Meteor', pp. 64-65, 'Progymnasma meteor', p. 55.

By enunciating something akin to the law of conservation of matter, Van Helmont adds that the elements cannot be transformed into each other.³⁸⁸ He strongly disputes the Scholastic idea that air could be changed into water through condensation. If such a theory were true, air compressed by a bullet in a pistol would turn into water, something which does not happen even in wintry conditions.³⁸⁹ The stability of elements originates from their lack of a transformative force within them, which he explains as a desire, an appetite, appointment or necessity of changing one's nature.³⁹⁰

Van Helmont's concept of the conservation of matter, whether referring to 'the law of indestructibility of matter' as in Partington or to the more subtle idea of 'mass balance' (conservation of weight) as explained in Newman and Principe, has incited the interest of historians of science.³⁹¹ Yet no one has observed that its ultimate source lies in Van Helmont's Christian-philosophical considerations. Although Van Helmont was undoubtedly influenced by medieval metallurgical techniques, he should not simply be dismissed as a simple laboratory technician inheriting assaying practices from other alchemists. His mindset was clearly biased in favour of philosophy, or *scientia*, rather than simple practice, reflecting in this sense the Paracelsian tradition.³⁹² Van Helmont's ideas of *scientia* will be further investigated; for now, it suffices to say that the Bible was a stronger source of *scientia* than laboratory technique could have been. In other words, the theory of conservation was drawn first from the Bible and then applied to the laboratory rather than vice-versa.

Besides being substantially simple, elements are also 'pure' and 'undefiled', and do not mix in the constitution of bodies.³⁹³ They lack the ability of changing themselves into other substances, needing intervention from outside to do so.³⁹⁴ For instance, air 'unless it have a Blas, remains quiet, nor hath it the principle of motion from it self, but

³⁸⁸ Van Helmont, chap. 8, 'The Elements', p. 49, 'Elementa', p. 43; chap. 9 'The Earth', p. 51, 'Terra', p.45; chap. 11, 'The Air', p. 60, 'Aer', p. 51; chap 13, 'The Gas of the Water', p. 76, 'Gas Aquae', p. 64; ('De Spadanis fontibus'), chap. 95 'Another Paradox', p. 691, 'Paradoxum alterum', p. 548. For Aristotle's views of the cyclical transformation of the elements, see *Metaphysics*, 1050b29-30, *Physics* 255b5-31, *On Generation and Corruption*, 331b4-11-34.

³⁸⁹ Van Helmont, chap. 11, 'The Air', p. 58, 'Aer', p. 50.

³⁹⁰ Van Helmont, chap. 13, 'The Gas of the Water', p. 77, 'Gas Aquae', p. 64.

³⁹¹ Partington, 'Joan Baptista', p. 368; Newman and Principe, *Alchemy Tried in the Fire*, p. 69.

³⁹² We should recall at this point that in his autobiography he talked about associating himself with an 'Idiot' that 'at least knew the manual operations of the art of fire' (*Idiota namque se mihi associabat, qui pyrotechniae, manualia saltem, noverat*); *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1079; 'Tumulus Pestis', chap. 1, p. 834; although I have pointed out that the term 'idiot' should not be read as derogatory, the phrasing 'at least known' indicates that Van Helmont had a certain feeling of superiority toward someone that could only do manual operations, but did not have 'scientia'. Hence his immediate affirmation 'Dein indies crevit sciendi ac operandi aviditas': obviously, *scientia* is more important than operation. This is also evident in his theory of knowledge as involving first knowledge of God and self and then of Nature.

³⁹³ Van Helmont, chap. 12, 'The Essay of a Meteor', pp. 65-66, 'Progymnasma meteori', p. 55.

³⁹⁴ Van Helmont, chap. 12, 'The Essay of a Meteor', p. 66, 'Progymnasma meteori', p. 55.

it comes to it from elsewhere.'³⁹⁵ Water also cannot change in the absence of an *Archeus*, or efficient cause.³⁹⁶

Van Helmont's view of the elements is drawn in stark contrast with the Aristotelian-Galenic worldview, which understood elements as the material components of bodies. In the latter tradition, every created being was made up of a mixture of the four elements, usually present in different proportions. The variation created an imbalance that was both the source of diversity and of disease.³⁹⁷ Elements were also flexible and dynamic, as they could be changed into the other through the alteration of their inner properties.

However, it is important to realise that the later Van Helmont's two-element system is also built in response to the standard doctrine of Paracelsus. Paracelsus viewed the four elements as 'wombs' or 'matrices' out of which bodies originate; but they themselves were not material. The middle Van Helmont concurred with Paracelsus's view as well,³⁹⁸ but the later Van Helmont changed his mind. Even though his doctrine preserves the passive characteristic of the Paracelsian elements and the 'female' metaphor,³⁹⁹ he now decides that elements are in fact matter. This idea makes the duality matter-spirit much more pronounced in his system than in that of Paracelsus. The association of elements – matter – female – passivity is also more clearly drawn.

Elements may not have degrees or proportions, but do have properties.⁴⁰⁰ Thus, Van Helmont estimates that both air and water are cold in nature, contrary to Aristotelian doctrine, which viewed air as hot and water as cold.⁴⁰¹ Coldness originates from their reduced vitality; thus, despite his rejection of heat as sign of life, Van Helmont seems to follow the Aristotelian tradition of the 'vital heat' when it comes to the elements.⁴⁰²

Nevertheless, this appears to be the only point of similarity between water and air. Van Helmont stresses that each element is different from the other. As always, his arguments are buttressed by Biblical quotations. For instance, the air must be dry rather than moist, since in the aftermath of the flood, God sent winds to dry the face of the

³⁹⁵ Van Helmont, chap. 14, 'The Blas of Meteors', p. 78, 'Blas Meteoron', p. 65: 'Aer ergo, nisi Blas habeat, quietus manet, nec motus principium, a seipso, habet: sed aliunde ipsi advenit.'

³⁹⁶ Van Helmont, chap. 13, 'The Gas of the Water', p.77, 'Gas Aquae', p. 65.

³⁹⁷ Van Helmont, chap. 8, 'The Elements', p. 47, 'Elementa', p. 42.

³⁹⁸ Van Helmont, '30 Janvier 1631', p. 55: 'Elementa sunt incorporeae matrices corporum'.

³⁹⁹ On Paracelsus's elements as passive 'mothers', see Weeks, *Paracelsus: Speculative Theory*, p. 127.

⁴⁰⁰ Van Helmont, chap. 11, 'The Air', p. 60, 'Aer', p. 51.

⁴⁰¹ Van Helmont, chap. 11, 'The Air' p. 59, 'Aer', p. 51.

⁴⁰² On vital heat in Aristotle, see Gad Freudenthal, *Aristotle's Theory of Material Substance: Heat and Pneuma, Form and Soul* (Oxford: Clarendon Press, 1995), pp. 6-72.

Earth.⁴⁰³ Or, if air had been moist, it could not dry up the waters.⁴⁰⁴ Moreover, since Creation, air has continuously acted as separator of the waters, a fact which Van Helmont understands to mean that the air must not only be dry but exceedingly cold.⁴⁰⁵ The air's divine office as water separator implies that air can act upon the water but not be reacted upon.⁴⁰⁶ In this, Van Helmont again denies the principle of Aristotelian physics according to which every action of an agent encounters the reaction of the patient.⁴⁰⁷

Moreover, each element has its specific trait: water can become earth by means of *semen*, while the air's peculiarity is that it has *vacua*, or empty spaces where water in the form of vapour can insinuate.⁴⁰⁸ This specific character is called an 'Elementary privilege' (*elementali privilegio*), as Van Helmont calls it, a particular appointment given by God.⁴⁰⁹ Here again we may notice the emphasis on the specific, *quidditas*, and the voluntarist view of Nature; the elements act in very specific ways because they are so commanded by God.

4.2.2.2. *The Element of Water*

As already suggested, Van Helmont firmly believed that water is 'the universal beginning of Bodies,'⁴¹⁰ or the material cause of all sublunary things. Water gives birth to bodies by means of the *semen*, the efficient cause. The *semen* changes water either into *Leffas*, a primordial juice that creates plants, *Bur*, the liquid that stands at the origin of metals, or the Sand *Quellem*, the original earth.⁴¹¹ Conversely, all bodies can eventually be resolved into the element of water, whence they came. We have already seen that this can be carried out by destroying the *semina* by means of the Alkahest.

However, Van Helmont decides to adduce another proof to this contention. Why he felt another proof was necessary is not clear; perhaps he realised that the Alkahest

⁴⁰³ Van Helmont, chap. 12, 'The Essay of a Meteor', p. 63, 'Progymnasma meteori', p. 54. Genesis 8.

⁴⁰⁴ Van Helmont, chap. 12, 'The Essay of a Meteor', p. 64, 'Progymnasma meteori', p. 54.

⁴⁰⁵ Van Helmont, chap. 13, 'The Gas of the Water', p. 72, 76, 'Gas Aquae', pp. 60, 64. This appears very important in Van Helmont's theories of the interaction of air and water.

⁴⁰⁶ Van Helmont, chap. 13, 'The Gas of the Water', p. 76, 'Gas Aquae', p. 64.

⁴⁰⁷ Van Helmont, chap. 13, 'The Gas of the Water', p. 76, 'Gas Aquae', p. 64.

⁴⁰⁸ Van Helmont, chap. 11, 'The Air', p. 60, 'Aer', p. 51.

⁴⁰⁹ Van Helmont, chap. 13, 'The Gas of the Water', p. 77, 'Gas Aquae', p. 65.

⁴¹⁰ Van Helmont, chap. 4, 'On the Causes and Beginnings of Things', p. 31, 'Causae et initia naturalium', p. 30.

⁴¹¹ Van Helmont, chap. 8, 'The Elements', p. 49, 'Elementa', p. 43; chap. 9, 'The Earth', p. 50, 'Terra', p. 44.

was too hard to reproduce, and that he needed another piece of evidence for his assertion. Hence he describes, in detail, his famous ‘willow tree experiment’, heralded by many historians of science as one of the first quantitative experiments of chemistry.⁴¹² This experiment arose out of Van Helmont’s reading of Nicholas of Cusa’s *The Idiot*, where a similar experiment is described.⁴¹³ However, it is unclear if Cusa himself undertook it, apparently considering it only theoretically.⁴¹⁴

The belief in the primacy of water has important implications for Van Helmont’s alchemical practice. Although he acknowledges the importance of fire in altering bodies, he believes that meaningful transmutation is achieved mainly by means of the reduction of body by dissolution. Van Helmont emphasises the alchemical maxim according to which ‘Bodies are not changed into each other, unless they are first reduced into their first, and easie following or clammy Matter’.⁴¹⁵ This liquefaction could primarily be obtained through the action of the mysterious liquor of Alkahest.⁴¹⁶ Elsewhere he suggests other simpler ways of converting matter; for instance, he argues that all oils, sulphurs and fats can be neutralised by salt alkali, made into soap, which can then be distilled into water.⁴¹⁷

Since water lies at the root of all bodies, it is not surprising that Van Helmont believed it could be found everywhere. Water is found in the air in the form of vapour and, more importantly, Gas, and is the beginning-cause of ‘meteors’, meaning atmospheric phenomena.⁴¹⁸ In a blatant rejection of the traditional Aristotelian-Scholastic system, water also stands at the centre of the earth.⁴¹⁹ Thus, Van Helmont imagined that there is a

⁴¹² Van Helmont, chap. 18, ‘The Fiction of Elementary Complexions and Mixtures’, p. 109, ‘Complexionum atque mitionum’, p. 88: ‘Caepi enim vas terreum in quo posui terrae in clibano arefactae lb 200, quam madefeci aqua pluvia, illique implemavi truncum salicis, ponderantem lb 5 ac tandem exacto quiquennio, arbor inde prognata, pendebat 169 lb & circiter uncias tres. Vas autem terreum sola aqua pluvia, vel distillate, semper (ubi opus erat) maduit, eratque amplum, & terrae implantatum, & ne pulvis obvolitans terrae commisceretur, lamina ferrea, stanno obducta, multoque foramine pervia, labrum vasis tegebat. Non computavi pondus foliorum quaterno autumn deciduorum. Tandem iterum siccavi terram vasis, & repertae sunt eadem librae 200 duabus circiter unciis minus. Librae ergo 164 ligni, corticum, & radicum, ex sola aqua surrexerant.’

⁴¹³ Nicholas of Cusa, *The Idiot in Four Books: The First and Second Wisdom. The Third of the Mind. The Fourth of Statick Experiments, or Experiments of the Balance* (London: William Leake, 1650), pp. 188-189.

⁴¹⁴ For a description of Cusa’s proposal, and antecedents, see Walter Pagel, *Joan Baptista van Van Helmont*, pp. 53-56.

⁴¹⁵ Van Helmont, chap. 49, ‘The Humour Latex, neglected’, p. 379, ‘Latex humor neglectus’, p. 306.

⁴¹⁶ Van Helmont, chap. 60, ‘The Power of Medicines’, p. 482, ‘Potestas medicaminum’, p. 384.

⁴¹⁷ Van Helmont, chap. 18, ‘The Fiction of Elementary Complexions and Mixtures’, p. 109, ‘Complexionum atque mitionum elementalium figmentum’, p. 88.

⁴¹⁸ See below, sub-chapter 4.2.3.6 on Gas.

⁴¹⁹ Van Helmont, chap. 9, ‘Earth’, p. 50, ‘Terra’, p. 45. Of course, the Scholastics followed Aristotle in imagining that the sphere of the earth lay at the centre of the Universe and that water formed a sphere surrounding it; Steneck, *Science and Creation*, pp. 78-80.

...one onely Fountain, and Spring of waters, which [God] hadst placed in the heart and top of the Earth, is afterwards spread abroad into a thousand veins, which did almost every where pierce thorow [through] the Globe of the earth, to far better uses.⁴²⁰

This idea also runs counter with the predominant version of alchemical philosophy at the time, according to which the centre of the Earth was fiery. This theory had been advanced by the influential Michael Sendivogius and was well-received in the period, especially by Athanasius Kircher (1601-1680).⁴²¹

Moreover, Van Helmont believes firmly in the existence of a continuous water cycle in nature. He affirms that the quantity of water in the universe remains unchanged.⁴²² Water has a protean quality, being able to change itself in different shapes under the force of heat or cold, but it does not change its being. Low temperatures transform water into ice, while high ones turn it into vapour. Van Helmont's contention that vapour is not air, but modified water is supported by alchemical practice, since vapour, 'being retorted or struck back by an *Alembick*, it returns into its antient weight of water.'⁴²³ This process is also repeated in nature, as under the influence of heat, water changes into vapour and rises to the higher region of the air. There, it rarefies into its smallest atoms; then, under the impact of the naturally cold air, finally condenses and falls upon the earth as water or dew.⁴²⁴ Thus, heat or cold do not have an impact on the substance of water, changing only its appearance by turning its inner parts (*tria prima*) outward or inward.⁴²⁵ By comparison, *semina* alter the being of water by transforming it into earth and earthly bodies.⁴²⁶

Although as an element water is naturally passive, it does not completely lack life and sensitivity. Van Helmont believes that 'water hath a certain kinde of sense or feeling, and so, that all Beings do after some sort partake of life. *Come let us worship the King by whom all things live.*'⁴²⁷ He goes so far as to suggest that water in its

⁴²⁰ Van Helmont, chap. 10, 'The Water', p. 53, 'Aqua', p. 45: 'Unicus demum fons, & aquarum scaturigo, quam in terrae medietate atque cacumine collocaveras, est deinceps in venas mille diffuses, quae ubique fere, terrae globum terebrant, ad longe meliores usus.'

⁴²¹ Debus, *The Chemical Philosophy*, pp. 89-93.

⁴²² Van Helmont, chap. 13, 'The Gas of the Water', p. 74, 'Gas aquae', p. 63.

⁴²³ Van Helmont, chap. 12, 'Essay of a Meteour', p. 63, 'Progymnasma meteori', p. 54.

⁴²⁴ Van Helmont, chap. 12, 'Essay of a Meteour', p. 66, 'Progymnasma meteori', p. 55. For Van Helmont's conception of atoms and corpuscles, see William Newman, 'The Corpuscular Theory', pp. 189-191.

⁴²⁵ Van Helmont, chap. 13, 'The Gas of the Water', p. 71, 'Gas Aquae', p. 60. For the role of the *tria prima* in Van Helmont's physical explanations see below, 4.2.2.7.

⁴²⁶ Van Helmont, chap. 12, 'Essay of a Meteour', p. 64, 'Progymnasma meteori', p. 55.

⁴²⁷ Van Helmont, chap. 13, 'The Gas of the Water', p. 75, 'Gas Aquae', p. 63: "Quod aqua aliqualem sensum habeat & electionem, adeoque omnia entia quodammodo vitam participant. Regem cui omnia vivunt, venite adoremus.'

specific behaviour makes a choice, as it prefers to be transformed into a vapour rather than a gas.⁴²⁸ Water also actively protects itself by creating a crust (ice) when it encounters cold air.⁴²⁹ Thus for Van Helmont passivity does not necessarily equal lifelessness, hence his dualism of matter-spirit should not be read as meaning that one is dead and the other alive.

An important aspect to note is the extent to which water is presented as having female characteristics. For instance, Van Helmont imagines the element being impregnated by the *semen* and giving birth to bodies: 'the fruits [...] are the offsprings of the one Element of water, begotten with childe by the seed, which disposeth the water to generate in places, as it were in wombs'.⁴³⁰ This is in line with the sexual metaphor of matter and spirit which we have noted above.⁴³¹

4.2.2.3. *The Element of Air*

Although air seems to preoccupy Van Helmont somewhat less than water, this element has a dignity and role of its own. As seen in Van Helmont's interpretation of Genesis, its chief function is to separate, being appointed for this purpose by God.⁴³² Indeed, the air is often portrayed as being more active than the water, 'the operative Principle of [...] separation.'⁴³³ In its action, air almost resembles an alchemist, as its function is to divide and separate the waters.⁴³⁴

In his second exposition of Genesis in *Ortus medicinae* (chap. 13, 'Gas of the Water', 'Gas aquae'), Van Helmont makes it clear that 'air' is both 'Heaven' (*coelum*) and 'Firmament' (*firamentum*). This is different than his middle, and thoroughly Paracelsian view of Heaven as 'fire', which can be seen in *De magnetica*. Now he believes that air encompasses the entire sphere of the stars, the latter of which are 'lights' (*lumina*), not fire.⁴³⁵

His views of the element air show a strong departure from traditional medieval cosmology. Air is now viewed as the common stuff of the sublunary and superlunary

⁴²⁸ Van Helmont, chap. 13, 'The Gas of the Water', p. 76, Gas Aquae, p. 63.

⁴²⁹ Van Helmont, chap. 13, 'The Gas of the Water', p. 75, 'Gas Aquae', p. 63.

⁴³⁰ Van Helmont, chap. 22, 'Magnum Oportet', p. 149, 'Magnum oportet', p. 121: 'fructus...unius aquae esse proles, impraegnatae a semine, quod in locis, tanquam uteris, aquam disponit ad generandum'.

⁴³¹ See 4.2.1.3 'Dualism of Matter and Principle'.

⁴³² This is re-affirmed in chap. 13, 'The Gas of the Water', p. 71, 'Gas Aquae', p. 60.

⁴³³ Van Helmont, chap. 13, 'The Gas of the Water', p. 71, 'Gas Aquae', p. 60, '...sed potius operativum illius separationis principium'.

⁴³⁴ Van Helmont, chap. 13, 'Gas of the Water', p. 76, Gas Aquae', p. 63.

⁴³⁵ Van Helmont, chap. 13 'Gas of the Water', p. 71, 'Gas Aquae, p. 60: 'habet quidem ingentia in se lumina, quae in eo volvuntur'.

world. The stars do not dwell in a mysterious *quinta essentia*, but in a mundane element like all the others.⁴³⁶ Van Helmont was effectively pushing the boundary of the heavenly realm beyond the traditional Aristotelian spheres: the ‘upper waters’ of Genesis lay now above the firmament of the stars.

Van Helmont further asserts that air’s role as separator is achieved by naturally having empty spaces within it, wherein it may contain water vapours and Gas exhalations.⁴³⁷ Indeed, he proves by ‘mechanical’ operation, that ambient air can be compressed in a pipe of twenty-eight fingers up to a density of five fingers, this being done without a destruction of the air. He concludes that a large part of air is void of body,⁴³⁸ and that in fact air was created for the explicit purpose of containing Gas and exhalations within it.⁴³⁹

Van Helmont hence denies the Aristotelian principle according to which nature abhors a vacuum, arguing that in fact air easily expands or contracts itself leaving *vacua* in between.⁴⁴⁰ To him, the presence of empty space is no surprise, as in fact the entirety of nature is close to nothing. His argument on behalf of the vacuum is hence drawn, again, from religious and voluntarist principles: as Nature was created by God *ex nihilo*, it is always close to and can at a moment’s notice be reducible to nothing.⁴⁴¹

Just like water, air lacks the power of acting upon bodies, being weightless.⁴⁴² Instead, it is acted upon, and the chief actor is the ‘motive force’, or the *blas* of the Stars.⁴⁴³ This view is in line with his doctrine of the elements as being passive, but is not exactly congruent with the idea of air ‘actively’ separating waters noted above. The explanation is twofold: on one hand, acting on bodies is imagined as being different from acting on elements, and on the other, it recalls Van Helmont’s perspective that God is free to act arbitrarily, including by imposing an active role of separator on an otherwise passive element.⁴⁴⁴

⁴³⁶ Lang, *The Order of Nature*, pp. 173-180.

⁴³⁷ Van Helmont, chap. 15, ‘A Vacuum of Nature’, p. 84, ‘Vacuum naturae’, p. 70.

⁴³⁸ Van Helmont, chap. 15, ‘A Vacuum of Nature’, p. 82, ‘Vacuum naturae’, p. 68.

⁴³⁹ Van Helmont, chap. 15, ‘A Vacuum of Nature’, p. 83, ‘Vacuum naturae’, p. 69: ‘Aer ergo creatus est, ut sit receptaculum exhalatum, quare etiam vacuum in poris habeat, est necesse’.

⁴⁴⁰ Van Helmont, chap. 15, ‘A Vacuum of Nature’, p. 82, ‘Vacuum naturae’, p. 68.

⁴⁴¹ Van Helmont, chap. 15, ‘A Vacuum of Nature’, pp. 86-87, ‘Vacuum naturae’, pp. 71-73. For a comprehensive discussion on the debates on the vacuum in the Middle Ages and Early Modern Europe, see also Edward Grant, *Much Ado about Nothing: Theories of Space and Vacuum from the Middle Ages to the Scientific Revolution* (Cambridge: Cambridge University Press, 1981).

⁴⁴² Van Helmont, chap. 17, ‘The trembling of the Earth, or Earth-quake’, p. 100, ‘Terra tremor’, p. 84.

⁴⁴³ Van Helmont, chap. 17, ‘The trembling of the Earth, or Earth-quake’, p. 100, ‘Terra tremor’, p. 84.

⁴⁴⁴ Because of this arbitrariness of God, it would be incomplete to describe air as simply an inert medium, as Giglioni notes it; e.g. ‘L’aria e un mezzo inerte, di per se priva anche di moto, se non fosse agitata da un estrinseco principio di movimento, per il quale Van Helmont conia il termine blas’; Guido Giglioni, ‘Per una storia del termine Gas da Van Helmont a Lavoisier: Constanza e variazione del significato’,

4.2.2.4. *Van Helmont's Elements and Alchemy*

In respect to water, Van Helmont formally gives primacy to his understanding of the book of Genesis; however, there are signs that alchemy contributed to and supported his conception of the element. The idea that water is at the root of all matter was in fact en-vogue amongst the Paracelsian alchemists of the early seventeenth century.⁴⁴⁵ One can find this contention in Franciscus Kieser's *Cabala chymica* (1606), Alexander von Suchten's *Liber de tribus facultatibus* (1606), Oswald Croll's *Basilica chymica* (1609), Willem Mennens', *De aureo vellere* (1622) and Thomas Willis' *The Search for Causes* (1616).⁴⁴⁶ Perhaps more influentially, this idea appears in Basil Valentine's *The Triumphant Chariot of Antimony*; many alchemists in the seventeenth century, including Van Helmont, mistook Valentine for an important medieval alchemist.⁴⁴⁷

The origin of their idea can in turn be traced back to Paracelsus, who in 'Paragranum' had commented on the Genesis account of the Spirit of God hovering over the waters to state that 'water was matrix, for in the water heaven and earth were created'.⁴⁴⁸ Moreover, Paracelsus had claimed in the book 'On Minerals' that 'water [...] becomes earth, which it is not', even though he seemed to state that only minerals and metals proceeded from water.⁴⁴⁹

Van Helmont himself admitted that his ideas about the element water were drawn from alchemy, but he does not acknowledge his immediate sources. Instead, he refers to medieval alchemy as a source of inspiration, more precisely to the authority of Geber, maintaining that water behaves like the internal Mercury of metals, which rejects any attempts at division.⁴⁵⁰

Annali della Facoltà di Lettere e Filosofia dell'Università di Macerata 25-26 (1992-1993), 431-467 (p.440).

⁴⁴⁵ Charles Webster, 'Water as the Ultimate Principle of Nature: the Background to Boyle's *Sceptical Chymist*', *Ambix*, 13 (1966), 96-107 (p. 98) claims this tenet was popular amongst sixteenth-century alchemists, but he does not back up his argument with any evidence.

⁴⁴⁶ Franciscus Kieser, 'La Kabbale chimique', in *Alchimie*, ed. and trans. by Bernard Gorceix (Paris: Fayard, 1980), pp. 185-219 (p. 213); Croll, 'Admonitory Preface', p. 58, Willem Mennens, 'De aureo vellere', in *Theatrum Chemicum*, 6 vols (Strasbourg: Lazarus Zetzner, 1622), V, 257- (pp. 324, 332-333); Thomas Willis, *The Search for Causes*, p. 11. See also Walter Pagel, *Smiling Spleen: Paracelsianism in Storm and Stress* (Basel: Karger, 1984), on Suchten and Fabius Violet, pp. 14, 30.

⁴⁴⁷ Basil Valentine, *The Triumphant Chariot of Antimony* (London: Thomas Bruster, 1660), p. 159: 'The first matter therefore of all bodies is water, which by the dryness of the fire and the aire is changed into earth.'

⁴⁴⁸ Paracelsus, 'Paragranum', in *Paracelsus, Essential Theoretical Writings*, p. 159.

⁴⁴⁹ Paracelsus, 'On Minerals', in *Hermetic and Alchemical Writings of Paracelsus*, p. 239.

⁴⁵⁰ Van Helmont, chap. 12, 'Essay of a Meteour', p. 65, 'Progymnasma meteori', p. 56. For a good analysis of Van Helmont's use of Geber, see Newman, 'The Corpuscular Theory'.

Further on, Van Helmont explains how physical Mercury can be stripped of its external Sulphur, which is the principle of life and contains the ‘Ferments or leavens, putrifactions by continuance, odours, specificall savours of the seedes, for any kinde of transmutations’.⁴⁵¹ Once the Sulphur is removed, only the Mercury remains, which is a substance that is unchanging, being ‘cleansed of its originall spot’.⁴⁵² The ‘perfect Homogeneity’ and purity of Mercury is most like to that of water.⁴⁵³ Elsewhere, he affirms that ‘the Mercury of things is nothing but meer Water, not as yet sufficiently ripened by the disposition of the Seed’.⁴⁵⁴

Van Helmont subsequently confesses that ‘I learned the nature of the Element of water, no otherwise than under the Ferule or Staffe made of the white wand of *Mercury*’.⁴⁵⁵ This affirmation further enhances the impression that, in his philosophy, water borrowed traits that were traditionally associated with Mercury by the alchemists. By substituting water for Mercury, Van Helmont substituted the explanatory power of the traditional alchemical principle.

4.2.2.5. *The Tria Prima: Critique and Use*

The three Paracelsian principles, the *tria prima*, were an important component of Paracelsus’s theory of matter that had been adopted by many alchemical philosophers up to Van Helmont’s time.⁴⁵⁶ The *tria prima* were usually viewed as corporeal, or, as Debus puts it, ‘a second system of elementary matter’.⁴⁵⁷ However, starting with Petrus Severinus, alchemical philosophers were also increasingly focussed on concepts such as *semina* and atoms.⁴⁵⁸ We have already noted that Van Helmont was strongly influenced by the concept of *semina* as inherited from Severinus.⁴⁵⁹

⁴⁵¹ Van Helmont, chap. 12, ‘Essay of a Meteour’, p. 66, ‘Progymnasma meteori’, p. 56.

⁴⁵² Van Helmont, chap. 12, ‘Essay of a Meteour’, p. 67, ‘Progymnasma meteori’, p. 57.

⁴⁵³ Van Helmont, chap. 55, ‘That the Three Principles’, p. 410, ‘Tria prima chymicorum’, p. 330.

⁴⁵⁴ Van Helmont, chap. 55, ‘That the Three Principles’, p. 412, ‘Tria prima chymicorum’, p. 332: ‘Rerum Mercurius autem, non est nisi mera aqua, non sat adhuc a dispositione seminis, & propensione materialis initii, maturata’.

⁴⁵⁵ Van Helmont, chap. 12, ‘Essay of a Meteour’, p. 65, ‘Progymnasma meteori’, p. 56.

⁴⁵⁶ The *tria prima* is prominent in the ‘mature’ works of Paracelsus. See particularly ‘Opus Paramirum’, in *Paracelsus: Essential Theoretical Writings*, p. 305. Many alchemical philosophers adopted his ideas to some extent, including Petrus Severinus, Joseph Du Chesne, Oswald Croll, Jean Beguin and others. For a cogent analysis of the adoption of the *tria prima* see primarily Reijer Hooykaas, ‘Die Elementenlehre der Iatrochemiker’, *Janus*, 41 (1937), 1-28 (particularly pp. 5-18).

⁴⁵⁷ Allen Debus, ‘Fire Analysis and the Elements in the 16th and 17th Centuries’, *Annals of Science*, 23:2 (1967), 127-147 (pp. 128-129).

⁴⁵⁸ It is beyond the scope of this paper to analyse the change in perception of the *tria prima* after Paracelsus; however, it is important to note the influence exercised by Petrus Severinus, who in his *Idea medicinae* (1571) emphasised the role of the *semina* over the *tria prima*. For an analysis of Severinus’ *semina*, see primarily Shackleford, *A Philosophical Path*, pp. 162-166.

⁴⁵⁹ See above, chapter 3.

Van Helmont's works reveal that his attitude toward the *tria prima* changed from apparent adoption in youthful *Eisagoge* (1607) to an apparent rejection in the *Ortus*. 'Apparent', because neither adoption nor rejection are without complexity. A closer reading shows that, despite formal allegiance in the *Eisagoge*, the Paracelsian *tria prima* does not have the same importance as the *semina*.⁴⁶⁰ Although Van Helmont continues to accept the *tria prima* in 'De Spadanis' (1624), the three principles are mentioned only once as being the principles of embodiment of the invisible and incorporeal *semen*.⁴⁶¹ In Van Helmont's letters to Mersenne (1631) the *tria prima* are questioned for the first time. He observes that 'the principles cannot be separated by fire without a secondary artifice', and that charcoal does not transform into the three principles under the vexation of the fire.⁴⁶²

By the time the *Ortus* was written, Van Helmont had further reflected on the concept and decided to drop the *tria prima* as universal principles of bodies. In the later Van Helmont's scheme, the three Paracelsian principles, at least in the sense of corporeal beginnings of bodies, were redundant. However, it is important to realise that the later Van Helmont did not eliminate the *tria prima* from natural explanations; in fact, he only altered their meaning and function.

The later Van Helmont's objections to the corporeal *tria prima* stemmed from several sources. First of all, he could not accept the tenet that all bodies could be reduced into the three principles. In Van Helmont's doctrine, the elements (water and air) were different from other material bodies, being simple and immutable. As he observes,

an Element should cease to be a simple body, if it be to be seperated into any thing before, or more simple than it self. But nothing in corporeall things is granted to be before, or more simple than an Element.⁴⁶³

Van Helmont's peculiar understanding of the element, which we have seen to be shaped by his reading of the Genesis, clashed with Paracelsian doctrine, and in his Christian Philosophy the authority of the Bible always superseded that of anything else. Yet, as always, Van Helmont backed his rejection with alchemical experience. Practice in the laboratory enabled him to discover that water could not be further reduced into

⁴⁶⁰ Broeckx, 'Le Premier ouvrage', pp. 125, 127, 136, 144. Hirai has argued that the seed theory is a pillar of Van Helmont's system in *Eisagoge*; Hirai, *Le concept de semence*, p. 441.

⁴⁶¹ Van Helmont, ('De Spadanis Fontibus'), chap. 95, 'Another Paradox', p. 691, 'Paradoxum alterum', p. 548.

⁴⁶² '15 Janvier 1631', p. 33.

⁴⁶³ Van Helmont, chap. 12, 'Essay of a Meteour', p. 65, 'Progymnasma meteori', p. 56.

the Paracelsian *tria prima*: ‘there is never made in the water a separation of the three former things, and much less any essential transmutation or changing.’⁴⁶⁴

Van Helmont’s second criticism stems from his views concerning the action of fire on bodies.⁴⁶⁵ Where Paracelsus believed that fire reduced a body to its constituents, Van Helmont thought that, on the contrary, fire always produced something new. Fire hence has a transformative power, rather than a reducing one. The quarrel between Paracelsus and Van Helmont is hence brought about by a conflicting fire hermeneutics. This is a fascinating topic, particularly since the practice of alchemy was similar for both: but where one viewed the salt obtained by burning wood to ashes as an original, if invisible, component of wood, the other viewed a new being conjured by the fire.⁴⁶⁶ This points out rather forcefully Paracelsus’s and Van Helmont’s different visions of the world: where one considered that the fire was making invisible things visible, the other saw it as creatively shaping matter into things that were not there before.⁴⁶⁷

Therefore, for Van Helmont, the three principles produced by fire are nothing more than new products compounded through fiery action.⁴⁶⁸ The name of *tria prima* (three first things) is then improper, since Sulphur, Salt and Mercury are only secondary products of fire.⁴⁶⁹ As he sums up his argument,

Although that the Three first Things, are in part drawn out of some Bodies by the Fire, yet that is not done by a Separation of the same, fore-existing, but as by a Transmutation made by the Fire, they are there generated, as it were new Beings, and there is made that, which there was not before.⁴⁷⁰

Van Helmont does not deny that the *tria prima* can indeed be produced from several bodies under the action of fire. For instance, he affirms that ‘those three things are found indeed in many Bodies; or (as I may more distinctly speak) the three things

⁴⁶⁴ Van Helmont, chap. 8, ‘The Elements’, p. 49, ‘Elementa’, p. 43.

⁴⁶⁵ Van Helmont’s critique of Paracelsian fire analysis is well described by Debus in his ‘Fire Analysis and the Elements’, pp. 137-139. Debus also points out previous similar critiques by Thomas Erastus, but it is not clear that Van Helmont was influenced by him. However, Antonio Clericuzio draws attention to the fact that Marin Mersenne, Van Helmont’s correspondent, held the view of fire as generator rather than reducer; see Antonio Clericuzio, *Elements, Principles and Corpuscles* (London: Kluwer, 2000), p. 49. It is possible that Mersenne might have influenced Van Helmont, although it might have been vice-versa.

⁴⁶⁶ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, p. 409, ‘Tria prima chymicorum’, p. 329.

⁴⁶⁷ Ironically, the two views would have more in common than it looks, if one were to take a strictly Aristotelian perspective. Both perspectives would imply the fire being an agent that brought something potential into act.

⁴⁶⁸ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 112, ‘Imago fermenti’, p. 91.

⁴⁶⁹ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, p. 406, ‘Tria prima chymicorum’, p. 327.

⁴⁷⁰ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, p. 408, ‘Tria prima chymicorum’, p. 409: ‘Licet e quibusdam tria prima, pro parte per ignem eliciantur: non tamen id sit per separationem eorundem praeexistentium: sed quatenus per transmutationem ab igne factam, ibidem generentur, tanquam nova entia, fiatque, quod non erat ante.’

are, at least, separated out of many Bodies.’⁴⁷¹ Yet as they are not truly ‘beginnings’ but products of the fire, their importance in philosophy becomes much diminished.⁴⁷²

Even as products, Van Helmont continues, Salt, Sulphur and Mercury cannot be elicited from all bodies. In some bodies, the fire can only produce one or two of the *tria prima*, and in still other bodies, none at all.⁴⁷³ Such bodies, he points out, are primarily gold and mercury, but also sand, flint and stones that do not contain lime.⁴⁷⁴

Van Helmont adds a third criticism to this. The *tria prima* play no role in disease, as they cannot be actually isolated from a living body.⁴⁷⁵ Paracelsus, he believes, was mistaken in assuming the salt in urine was one of the *tria prima*, when in fact it is only salt water that has not been truly separated into its components.⁴⁷⁶ In fact, the *tria prima* cannot be obtained from living things at all; only by the destruction of the living principles of the *Archeus* and the *semen* could they be separated by fire and made into actual beings.⁴⁷⁷ Hence diseases cannot be seen as caused in any way by the three beginnings, as the *tria prima* are chronologically posterior to the diseases.⁴⁷⁸ Still, as Van Helmont underlines, the fact that they are not the original principles of bodies does not make them any less useful for medicine.⁴⁷⁹ They are in fact ‘gifts’ from God to cure and heal, which to Van Helmont is paramount in importance.

Having criticised the *tria prima* so vehemently, one would not expect Van Helmont to use them in explanations at all. Yet this is not at all true: on numerous occasions, when it comes to analysing the behaviour of bodies, he employs the *tria prima* quite heavily. Is he being inconsistent as it might appear at a first glance? Van Helmont was in fact sensitive to the possibility of such an accusation, particularly since he constantly levels the argument of inconsistency against Paracelsus. Hence, when he uses the three principles in relation to water, he quickly explains:

⁴⁷¹ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, p. 405; ‘*Tria prima chymicorum*’, p. 326: ‘*Inveniuntur quidem illa tria in multis corporibus: aut (ut distinctius loquar) saltem e multis separantur tria*’.

⁴⁷² Debus points out how Robert Boyle borrowed many of Van Helmont’s criticisms of fire analysis in his *Sceptical Chymist*; pp. 139-143.

⁴⁷³ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, p. 408; ‘*Tria prima chymicorum*’, p. 329.

⁴⁷⁴ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, pp. 410, 411; ‘*Tria prima chymicorum*’, pp. 330, 331.

⁴⁷⁵ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, p. 405; ‘*Tria prima chymicorum*’, p. 326.

⁴⁷⁶ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, p. 405; ‘*Tria prima chymicorum*’, p. 326.

⁴⁷⁷ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, pp. 406-407; ‘*Tria prima chymicorum*’, pp. 327-328.

⁴⁷⁸ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, p. 407; ‘*Tria prima chymicorum*’, p. 328.

⁴⁷⁹ Van Helmont, chap. 55, ‘That the Three First Principles of the Chymists’, p. 407; ‘*Tria prima chymicorum*’, p. 328.

although I have there called them the Three first Things of the Water, yet they are not the Three of composition, as the more formerly Beginnings of the Water; but the Three things of heterogeniety or diversity of kind.⁴⁸⁰

Unfortunately, this explanation does not come across as clearly as Van Helmont may have wished it to. In fact, having rejected the idea of the *tria prima* as corporeal beginnings of bodies, he frees the *tria prima* for a different use, which to him is much more important: as models for the behaviour of composite bodies.

A cursory look throughout Van Helmont's works reveals the importance he placed on the inner structure of things. Yet in order to explain this structure, Van Helmont needed to outline inner components. Hence he appealed to such principles of explanations as *semina*, atoms, *Archei* or the *tria prima*. In doing so, he created idiosyncratic alliances between corpuscles and incorporeal forces, all for the purpose of revealing the hidden engines of bodies.

Nowhere does the *tria prima* as a model for the behaviour of water come across more clearly than in his meteorological tracts. Here, the *tria prima* are used as components within water. It is not surprising that Kurt Lasswitz considered that Van Helmont here comes close to the formulation of a molecular theory.⁴⁸¹ His views were also re-affirmed by William Newman in his article on Van Helmont's corpuscularianism.⁴⁸²

Van Helmont's reasoning works as follows: ordinary water contains within itself a Mercury with a dissolved Salt, containing within itself a Sulphur.⁴⁸³ These components give water both its resilience and diversity of character. Under cold air, the Mercury and Salt of water react to preserve the being of water by covering themselves in ice.⁴⁸⁴ Yet in the upper reaches of the atmosphere, where there is exceeding coldness, it is the Sulphur which 'extraverts', creating a shell around the Mercury and Salt and forcing water to take the appearance of Gas.

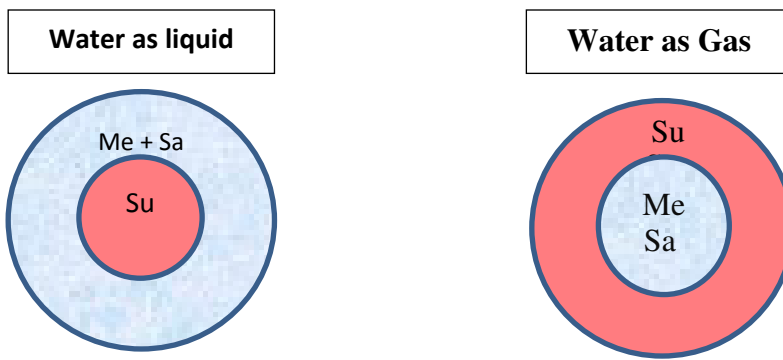
⁴⁸⁰ Van Helmont, chap. 55, 'That the Three First Principles of the Chymists', p. 410; 'Tria prima chymicorum', p. 330: 'Itaque, licet ibidem tria prima aquae vocaverim, non sunt tamen tria compositionis, quasi anteriora, aquae initia: sed tria heterogeneitatis'.

⁴⁸¹ Newman, 'The Corpuscular Theory', pp. 161-162.

⁴⁸² Newman, 'The Corpuscular Theory', pp. 162-165.

⁴⁸³ Van Helmont, chap. 13, 'Gas of the Water', p. 71, 'Gas aquae', p. 60: 'I consider the body of the water, to contain in it an Elementary, and native Mercury, liquid, and most simple: next an un-savoury, and alike simple Salt. Both which, do embrace within them, a uniform, homogeneous, simple and unseparable Sulphur.'

⁴⁸⁴ Van Helmont, chap. 13, 'Gas of the Water', p. 72, 'Gas aquae', p. 60. See also the account of Newman and Principe in *Alchemy Tried in the Fire*, pp. 64-66.



These *tria prima* of the water cannot be separated in any manner:

...there is no hope that they should be rent asunder from each other, because in the every way simplicity of the water, an adequate or suitable Sulphur is after a certain sort hidden, which cannot be seperated from the other two, but they all do accompany together.⁴⁸⁵

Van Helmont concludes that his *tria prima* are not ‘certain universall Bodies which are common to all particular kindes’ as Paracelsus would have it, but ‘similar or like parts in composed bodies, being distinguished by a three-fold variety, according to the requirance of the seeds’.⁴⁸⁶

Such a view of the *tria prima* has generated puzzlement and dissension amongst scholars. What is this *tria prima* that Van Helmont is referring to? One is tempted to classify the *tria prima* as corporeal particles of water; this would be in line with Lasswitz’s opinion that Van Helmont is describing a complex corpuscle similar to a molecule. In fact, the analogy is not very accurate, since molecules are by definition separable into atoms; perhaps a more enlightening comparison would be with that of the inner structure of atoms themselves.⁴⁸⁷

Yet Clericuzio disputed this interpretation, arguing that Van Helmont used the *tria prima* simply as an analogy, and he did not mean them to be taken as physical particles at all.⁴⁸⁸ Clercuzio’s theory is based on Van Helmont’s comparison of the *tria prima* model with that of astronomers’ eccentrics,⁴⁸⁹ and on the fact that, in the ‘Tria prima

⁴⁸⁵ Van Helmont, chap. 12, ‘Essay of a Meteour’, p. 66, ‘Progymnasma meteori’, p. 56.

⁴⁸⁶ Van Helmont, chap. 18, ‘The Fiction of Elementary Complexions and Mixtures’, p. 105, ‘Complexionum atque misionum’, p. 85.

⁴⁸⁷ There are limits to the comparison, of course, since an atom can also be ultimately divided, and in Van Helmont’s view water cannot be separated in any possible way.

⁴⁸⁸ Clericuzio, *Elements, Principles and Corpuscles*, pp. 57-58: ‘In my view, van Helmont’s above-mentioned statement that water contains – one within the other – the three principles does not mean that for him water has different particles in itself, even less that it is formed of complex corpuscles. He believes that water is the homogeneous, simple material substratum.’

⁴⁸⁹ Van Helmont, chap. 13, ‘The Gas of the Water’, p. 71, ‘Gas Aquae’, p. 60: ‘Haec suppono, pro ut Astronomi suos excentricos, ut intelligendi imbecillitati nostrae, eatur obviam.’

chymicorum', Van Helmont clearly states that the attribution of *tria prima* to water is made by analogy.⁴⁹⁰

In fact, it seems that Van Helmont remains ambiguous in regards to his version of the *tria prima*. It is clear that the primary use of the concept is to create models that explain the behaviour of water, and by extension bodies. It is interesting to note that his contemporary Descartes used precisely the same astronomical metaphor to present several mechanical theories of light.⁴⁹¹ Osler observes that Descartes 'considered it possible to generate true observations from theoretical premises of undetermined truth-value.'⁴⁹² We are perhaps encountering something similar here: Van Helmont cannot ascertain the 'truth-value' that there are such things as the *tria prima* in water because they cannot be isolated in the laboratory. However, he finds them a highly useful tool of explanation.

That being said, it also seems that Van Helmont inclined toward the existence of something like the *tria prima* in bodies. Thus, elsewhere he talks in the following terms about the '*Mercurie* of the water':

I have from hence, with great pains and cost, thorowly searched for thirty whole years, and I have found out the adequate or suitable Mercurie of the water; I will therefore endeavour to explain its nature, so far as the present speech requireth, and the slenderness of my judgement suffereth.⁴⁹³

Thus, it seems that Van Helmont inclines toward the existence of these principles, but the 'mystery of water' which he proclaims forbids him from making any stark affirmation about them. It is not even clear that this *tria prima* should be seen as being corporeal in any sense as Lasswitz saw them; they may be intended as something akin to forces.

Despite the complexity of Van Helmont's treatment of the *tria prima*, his criticism had a major influence in the eventual abandonment of the Paracelsian principles by the later chemists. Today, Robert Boyle's treatise *The Sceptical Chymist* (1661) is better remembered for its influential critique of the *tria prima*, although in fact this work mainly reiterated Van Helmont's arguments. Boyle repeated Van Helmont's objections that the *tria prima* could not really be found through separation by fire,

⁴⁹⁰ Van Helmont, chap. 55, 'That the Three Principles', p. 410, 'Tria prima chymicorum', p. 330: 'Quod autem quandoque element aquae sua tria tribuerim, id analogice locutum est: quatenus praeter spiritus abstractos, nihil in corporibus ita similar est.'

⁴⁹¹ Osler, *The Divine Will*, p. 142.

⁴⁹² Osler, *The Divine Will*, p. 142.

⁴⁹³ Van Helmont, chap. 12, 'Gas of the Water', p. 65, 'Progymnasma meteorii', p. 56.

focussing his attack on the possibility of extracting the *tria prima* from gold and diamonds. Boyle concluded:

For though I dare not absolutely affirme it to be impossible to Analyze these Bodies into their *Tria Prima*; yet because, neither my own Experiments, nor any competent Testimony hath hitherto either taught me how such an *Analysis* may be made, or satisfy'd me, that it hath been so, I must take the Liberty to refrain from believing it, till the Chymists prove it, or give us intelligible and practicable Processes to performe what they pretend.⁴⁹⁴

4.2.3. Spiritual Nature

4.2.3.1. *The Quiddity of Fire*

Van Helmont concurs with the views of Paracelsus, Du Chesne, Khunrath and other alchemists that fire was not a true element. Paracelsians generally believed that fire did not naturally lie in the sublunary world, but was a force of celestial origin.⁴⁹⁵ In this sense, fire was deemed to be similar or even the same as the Heaven understood as an active agent.

In his middle period ('De Spadanis', 1624, letter to Mersenne of 15 January 1631), Van Helmont similarly made the assumption that fire was fundamentally *coelum*, the heavens.⁴⁹⁶ However, later in life he disagreed with this typical Paracelsian tenet: 'Neither also, may we with *Paracelsus*, acknowledge the fire, by the name of Lights and Stars, to be a superlunary Element, as neither to have been framed from the beginning.'⁴⁹⁷

Despite this formal repudiation of Paracelsian doctrine, Van Helmont's belief about the nature of fire shows remarkable continuity between the middle and later phases. In a 1631 letter to Mersenne, Van Helmont argued that fire was neither a

⁴⁹⁴ Robert Boyle, *The Sceptical Chymist* (London: J. Cadwell, 1661), p. 176.

⁴⁹⁵ On the views of Paracelsus, see Pagel, *Paracelsus*, pp. 92-93; on Heinrich Khunrath's important concepts of divine fire and light, see Szulakowska, *The Alchemy of Light*, pp. 94-96; also Joseph Du Chesne, *The Practise of Chymicall and Hermeticall Physicke*, chap. 11: 'therfore wée acknowledge no other Fier then Heauen, & the fiery Region which is so called of burning'.

⁴⁹⁶ Van Helmont, ('De Spadanis fontibus'), chap. 95, 'Another Paradox', p. 691, 'Paradoxum alterum', p. 548; '15 Janvier 1631', p. 36: 'Elementum ignis nihil est aliud quam tota coelorum respublica'.

⁴⁹⁷ Van Helmont, chap. 8, 'The Elements', p. 48, 'Elementa', p. 43.

substance nor an accident; this very same idea is reiterated in *Ortus*.⁴⁹⁸ Fire is neither material nor substantial, but a substantial form; in fact, it is a form of light.⁴⁹⁹

In *Ortus*, Van Helmont develops his doctrine of fire further. In the first place, he is eager to base it on the Bible. He observes that fire is not mentioned in the account of Genesis, hence it is not first-born (*primigenius*) and cannot claim the title of element. Since the Bible does not offer much more on the subject of the nature of fire, Van Helmont appeals to experiment. By concentrating the light of the Sun through a glass until it becomes fire, he concludes that 'all fire wholly is essentially nothing but light',⁵⁰⁰ differing only by degree (*gradus*).⁵⁰¹ But neither light nor fire is deemed material, so they must be understood in a quasi-spiritual sense.⁵⁰² Here Van Helmont goes back to the Genesis account, observing that the creation of light occurs in the first day, rather than 'in the beginning', and was meant as a principle not a form of matter.⁵⁰³

Therefore, concludes Van Helmont, fire is

a certain true and subsisting Being, the which notwithstanding, as it is not a substance, so neither is it an accident, but a creature of a neither sort, appointed by the Lord for the uses of men, and given under the leave or pleasure of the same.⁵⁰⁴

Contrary to common opinion, fire does not need nourishing by air, so in this sense it is not 'alive'. In fact, fire is 'an artificial death' or 'a death at the hand of the artist'.⁵⁰⁵ In Van Helmont's judgment, fire acts by destroying bodies, by separating the

⁴⁹⁸ Van Helmont, '15 Janvier 1631', p. 39; chap. 21, 'The Birth or Originall of Forms', p. 135, 'Ortus formarum', p. 110.

⁴⁹⁹ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 135, 'Ortus formarum', p. 110.

⁵⁰⁰ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 135, 'Ortus formarum', p. 110: 'Ergo omnis prorsus ignis, est essentialiter, nil nisi lumen'; see also chap. 21, 'The Birth or Originall of Forms', p. 138, 'Ortus formarum', p. 113.

⁵⁰¹ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 137, 'Ortus formarum', p. 112.

⁵⁰² Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 135, 'Ortus formarum', p. 109: 'Itaque ostendam, ignem non esse substantiam aut materiam'; chap. 21, 'The Birth or Originall of Forms', p. 137, 'Ortus formarum', p. 112, 'ignem non esse materiam'; chap. 21, 'The Birth or Originall of Forms', pp. 138, 'Ortus formarum', pp. 112-113, 'Lumen enim vitale principium (non autem materia erat)'. See also chap. 15, 'A Vacuum of Nature', p. 84, 'Vacuum naturae', p. 69: 'Cum ignis non sit corpus, in quantum est ignis, nec creatura primae constitutionis; nec enim vivit, nec nutritur, qui mortis instar est.'

⁵⁰³ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 138, 'Ortus formarum', pp. 112-113: 'Lumen enim vitale principium (non autem materia erat) primo die, ut initium motivum creatur: cum illa tamen proprietate, ut quoties per sui connexionem in gradum surgeret, ignis urens fieret.'

⁵⁰⁴ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 135, 'Ortus formarum', 109: 'Est ignis proinde quoddam ens verum, subsistensque, quod tamen non est substantia; ita neque est accidens: sed creatura neutral a Domino in hominum usus destinata, & subter nutum ejusdem data.'

⁵⁰⁵ Van Helmont, chap. 18, 'The Fiction of Complexions and Mixtures', pp. 105, 109, 'Complexionum atque mixtionum' p. 85: 'mortem in manu artificis', p. 89, 'mors artificialis'; chap. 21, 'The Birth or Originall of Forms', p. 136, 'Ortus formarum', p. 111, 'mors artificialis'. Note that Van Helmont had already called fire 'mors instrumentaria et artificialis' in a letter to Mersenne, '15 Janvier 1631', p. 39.

heterogeneous parts of the body or, in the case of flammable bodies, transforming them into a smoky or a wild Gas.⁵⁰⁶

Fire essentially consumes the *semina* of a body but cannot by itself produce a new being, as it lacks a seminal beginning.⁵⁰⁷ Nevertheless, by its work it often ‘stirs up a new Being’, which is often better than the previous one.⁵⁰⁸ In this sense, fire bestows ‘a positive death’,⁵⁰⁹ which allows the alchemist to understand and experiment with nature. Hence, fire

...openeth, it teacheth to dissolve secrets, or things hidden, to hasten the operations of nature, otherwise oft-times, slow, drowsie, and buried. Next, it separateth and expelleth superfluities, it by the vertue of an adjoynd Ferment, removeth the middle life of things, whence are, chearfulnesses, and increases of strength: It also separateth the pure from the impure, the pretious from the vile, the hurtfull from the profitable, and the crude or raw, from the mature or ripe, yea, it ripeneth crudities themselves. And then, the fire prepareth the Instruments of Arts, which our life stands in need of.⁵¹⁰

Here fire’s value to alchemy, particularly that of a medical persuasion, is eloquently celebrated. Van Helmont posits that fire is an instrument to be employed by alchemists for artificial transmutation, since it has the property of separating substances.⁵¹¹ It is ‘the Vulcan or Smith of Arts, dedicated to humane necessities’.⁵¹²

Therefore, fire, which is the source of death and new life, plays an essential role in the destiny of bodies. Both fire and light ‘enlighten’, but fire is particularly important

⁵⁰⁶ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 136, ‘Ortus formarum’, p. 111; ‘Gas fuliginosum’ or ‘Gas sylvestre’; see above on Gas.

⁵⁰⁷ Van Helmont, chap. 18, ‘The Fiction of Complexions and Mixtions’, p.106, ‘Complexionum atque mistionum’, p. 85: ‘Quia vis ignis non producit semina, sed absumendo illa transmutat, & separando alterat singular corpora’; see also chap. 24, ‘Blas of Man’, p. 183, ‘Blas humanum’, p. 151 ; Van Helmont, chap. 18, ‘The Fiction of Complexions and Mixtions’, p. 106, ‘Complexionum atque mistionum’, p. 85; chap 21, ‘The Birth or Originall of Forms’, p. 136, ‘Ortus formarum’, p. 111: ‘Ignis vero caret semine, imo si quae sint absumit’.

⁵⁰⁸ Van Helmont, chap. 23, ‘Nature is Ignorant of Contraries’, p. 172, ‘Natura contrariorum nescia’, p.143.

⁵⁰⁹ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, pp. 136, 137, ‘Ortus formarum’, p. 111: ‘positiva mors’, ‘mors artificialis, positiva’.

⁵¹⁰ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 138, ‘Ortus formarum’, p. 113: ‘Hactenus enim aperit, docet recludere arcana, properare naturae operations, saepe alioqui desides, somnolentas & sepultas. Separat denique, expellitque superflua, submovet virtute adjuncti fermenti, vitam rerum mediam, unde alacritates & virium augmenta. Separat quoque purum ab impuro, pretiosum a vili, nocuum ab utili, & crudum a mature, imo maturat ipsas cruditates. Ignis dein praeparat atrium organa, quibus vita nostra indiget’.

⁵¹¹ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 136, ‘Ortus formarum’, p. 111.

⁵¹² Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 138, ‘Ortus formarum’, p. 113: ‘Artium vulcanus, humanis necessitatibus dicatus’.

as it overcomes the resistance of black bodies to light.⁵¹³ Thus, both light and fire have the ability to penetrate matter and make it more spiritual.⁵¹⁴

Fiery light bears an analogical similarity to the formal, or vital light, a key aspect of spiritual nature which the Flemish philosopher is particularly concerned with.⁵¹⁵ Fiery and vital light are both bright and shining, but the formal light is much more spiritual, bestowing life and quiddity on creatures. By comparison, the physical light 'is not at any time living, not vitall, unless occasionally, as it stirreth up'.⁵¹⁶ The reason is that 'nature is not able of it self, ever to ascend to the procreation of a vitall light'.⁵¹⁷

The example Van Helmont insists on is that of the Sun. Based on the catoptric experiment of the connection of the beams of light, he concludes that the Sun must be 'a most fervent fire, the capital Center in Nature, of created Lights'.⁵¹⁸ The Sun itself, being of heavenly nature, needs no nourishment, being maintained in its place by the command of God.⁵¹⁹ Yet, despite the Sun's high place in the Heaven, it is unable to confer life on creatures, as its light is only physical, not spiritual.⁵²⁰ It can only 'excite' by its heat, but cannot bestow *semina*. Hence, although there is an analogical relationship between the light of life and that of the Sun, the vital light is clearly superior.⁵²¹

4.2.3.2. *The Formal or Vital Lights*

Van Helmont's theory of vital or formal lights is one of the most important ideas advanced by the Flemish physician and a pillar of his project of Christian Philosophy.⁵²² He continuously reverts to his light theory throughout the *Ortus* as a mainstay of his philosophy. It is therefore regrettable that his ideas were generally ignored by modern

⁵¹³ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 139, 'Ortus formarum', p. 113: 'Quod tandem victor ignis, superses difficultates, ab opaco corpore sibi interjectas...Quod corpus opacum, fixum, ac resistens accensioni tandem illuminetur ab igne'.

⁵¹⁴ Van Helmont, chap. 68, 'I proceed unto the Knowledge of Diseases', p. 535, 'Progreditur ad morborum cognitionem', p. 429.

⁵¹⁵ See also Van Helmont, chap. 111, 'The Occasions of Death', p. 752, 'Mortis occasiones', p. 591.

⁵¹⁶ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 146, 'Ortus formarum', p. 119.

⁵¹⁷ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 147, 'Ortus formarum', p. 120.

⁵¹⁸ Van Helmont, chap. 113, 'The Tabernacle in the Sun', p. 794, 'In Sole tabernaculum', p. 620: 'Sol igitur ignis ferventidissimus, luminum creatorum centrum principale in natura.'

⁵¹⁹ Van Helmont, chap. 113, 'The Tabernacle in the Sun', p. 794, 'In Sole tabernaculum', p. 620.

⁵²⁰ Van Helmont, chap. 113, 'The Tabernacle in the Sun', p. 795, 'In Sole tabernaculum', p. 621.

⁵²¹ Van Helmont, chap. 113, 'The Tabernacle in the Sun', p. 795, 'In Sole tabernaculum', p. 621.

⁵²² See for instance, Van Helmont, chap. 42, 'An Unknown Action of Government', p. 336, 'Ignota actio regiminis', p. 272.

scholarship.⁵²³ The theory is a profound example of Van Helmont's attempt to straddle the boundaries of theology, metaphysics and natural philosophy by offering an all-encompassing framework.

Van Helmont posits the existence of four types of light: the supreme or uncreated light, the substantial light, the vital or formal light, and the physical light. The first belongs primarily to God; the second is shared by the angels and the human mind.⁵²⁴ In Nature, however, the only existing lights are the formal and physical lights.

The concept of the vital or formal light is a reinterpretation of the traditional Aristotelian form, as Van Helmont points out himself. These intrinsic lights provide the principle of individuation amongst all beings: each living soul is 'enlightened with a Light simply vital, not indeed universal, but specific and individuating'.⁵²⁵

As already noted, in his analysis of Aristotelian causation, Van Helmont had denied that the form is an active agent, proposing instead that it is the ultimate 'perfection' (entelechy) of a body.⁵²⁶ Moreover, although Nature has a 'disposition' toward perfection, it has no power of its own to effect it. Hence form has to be given directly by God.⁵²⁷

Going further, Van Helmont postulates that these non-intrinsic forms are in fact incorporeal lights. They originate from the one source, God, the 'Father of Lights', or the 'thrice glorious light' which contains within itself all species and individuals.⁵²⁸ As already noted, God's active role in Creation is fundamentally that of form-giver: 'the Father of Lights alone doth immediately frame or create the Lights of Forms, and the Forms of Lights: who giveth life and all things to all, nor is not far off from every one of us'.⁵²⁹

⁵²³ Heinecke's work *Wissenschaft und Mystik bei J.B. Van Helmont* seems to have been the only one to briefly touch upon the importance of light to Van Helmont's philosophy. However, Heinecke exclusively referred to Van Helmont's mystical and theological use of light imagery and paid no attention to Van Helmont's employment of light in natural philosophy. See Heinecke, pp. 75-78.

⁵²⁴ Van Helmont, chap. 31, 'The Rash Invention of Tartar in Diseases', p. 265, 'Inventio Tartari, in morbis termeraria', p. 214. See also the discussion surrounding angels in 4.3.8.1.

⁵²⁵ Van Helmont, chap. 26, 'Spirit of Life,' p. 196, 'Spiritus vitae', p. 160.

⁵²⁶ See above, 4.2.1.4.

⁵²⁷ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 130, 'Ortus formarum', p. 105: 'Etenim creation respicit, & dicit habitudinem, ad rem existentem in perfectione: rei autem perfectio est sua cujusque interna essentialis forma. Ergo ejus immediate origo, non aliunde, quam ex creation esse potest. Atque ideo, immediate ex unico rerum Creatore ineffabili'.

⁵²⁸ Van Helmont, chap. 21, 'The Birth and Originall of Forms', pp. 144-145, 'Ortus formarum', pp. 117-118.

⁵²⁹ Van Helmont, chap. 21, 'The Birth and Originall of Forms', p. 143, 'Ortus formarum', p. 117.

Van Helmont further postulates an entire hierarchy of lights, which emanates from God and extends downwards to all creatures.⁵³⁰ From the supreme light of God comes the light of the human mind (*mens*), which together with the light of angels are the only created substantial lights.⁵³¹ Below these in the hierarchy are the vital lights of the sensitive souls, including those of human beings.⁵³² These light-forms are mortal and temporary: they represent individuals who at the end of their appointed time return to nothingness.⁵³³ This is the natural order of Creation, since

Indeed all created things were made of nothing, and so they keep the disposition of that principle, and therefore the Forms and Being of things, do in the first place return of their own accord into their former nothing.⁵³⁴

Van Helmont qualifies this rather harsh pronouncement by in fact positing the return of the vital light to its divine source. In this sense, the light is ‘preserved’ and another one is produced instead of the former one.⁵³⁵

The formal lights act upon each other in hierarchical fashion: the divine light penetrates the light of *mens*, and this, in turn, pierces the light of the sensitive soul (*anima*).⁵³⁶ This penetration allows an intermingling of rays without each losing its own characteristics.⁵³⁷ Moreover, this is a type of action that does not imply reaction; Van Helmont strongly rejects the Aristotelian principle of action and reaction in hierarchical relationships. Thus, God and the mind act into inferior bodies but do not suffer reaction. He condemns as ‘blasphemy’ any view according to which created things can act back upon God.⁵³⁸

At the level of the formal lights a lively commerce takes place.⁵³⁹ The communication of lights is proven by a mirror experiment Van Helmont carried out,

⁵³⁰ ‘None can cause or beget the forms of things, but the Father of Lights, who giveth all things to all, nor is not far off from every created thing’, chap. 21, ‘The Birth and Originall of Forms’, p. 130, ‘Ortus formarum’, p. 105.

⁵³¹ Van Helmont, chap. 21, ‘The Birth and Originall of Forms’, p. 133, p. 143, ‘Ortus formarum’, pp. 108, 116.

⁵³² Van Helmont, chap. 21, ‘The Birth and Originall of Forms’, p. 144, ‘Ortus formarum’, p. 117.

⁵³³ Van Helmont, chap. 22, ‘Magnum Oportet’, p. 152; ‘Magnum oportet’, p. 124.

⁵³⁴ Van Helmont, chap. 21, ‘The Birth and Originall of Forms’, pp. 143-144, ‘Ortus formarum’, pp. 116-117.

⁵³⁵ Van Helmont, chap. 109, ‘Life’, p. 745, ‘Vita’, p. 586.

⁵³⁶ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 144, ‘Imago fermenti’, p. 117. This type of hierarchy gives Van Helmont the justification for advocating the superior nature of human beings to other created things.

⁵³⁷ Van Helmont, chap. 37, ‘The Seat of the Soul’, pp. 335-336, ‘Sedes animae’, p. 232.

⁵³⁸ Van Helmont, chap. 21, ‘The Birth or Originall of Forms’, p. 145, ‘Ortus formarum’, p. 118.

⁵³⁹ Van Helmont, chap. 38, ‘From the Seat of the Soul unto Diseases’, p. 292, ‘A sede Animae ad morbos’, p. 273.

whereby the rays of light were caused to intersect.⁵⁴⁰ The experiment allows Van Helmont to conclude that ‘formal Lights, which are diverse in the general, or particular kinde, do immediately pierce, and communicatively operate, without wearisomenesse, on each other like Light’.⁵⁴¹

Since for Van Helmont form and life are the same thing, the vital light is not only an expression of form, but it is life itself. As Van Helmont insists, ‘Lights are the very Lives and Forms themselves of vital Creatures.’⁵⁴² Elsewhere he elaborates:

Life is a Light and formal Beginning, whereby a thing acts what it is commanded to act: But this Light is given by the Creator, as being infused at one onely Instant, even as Fire is Struck out of a Flint; it is enclosed under the Identity and Unity of a Form, and is distinguished by general Kindes, and Species.⁵⁴³

Hence, Van Helmont concludes, ‘Life therefore cannot be otherwise understood, than under the Conception of Light.’⁵⁴⁴ Yet this formal light, as life, is a profound mystery, ‘Because words are wanting, and names, whereby these may be shewen or called.’⁵⁴⁵

The vital light, Van Helmont further insists, is immanent and not generated by the Sun.⁵⁴⁶ As such it does not have degrees, like the physical light.⁵⁴⁷ However, he believes that it has a certain colour: not red, as we might suppose, but blue.⁵⁴⁸ This idea is obviously drawn from the practice of distillation, since Van Helmont compares it to the light originating from the ‘shining or brightness from a flame, which *Aqua Vitae* sheweth in burning’.⁵⁴⁹

The theory of vital lights sounds highly abstract, and Van Helmont is conscious of the fact that critiques can be raised that this light cannot be sensed directly. In fact, Mersenne had already objected to his theory in a 1631 letter by pointing out that the

⁵⁴⁰ Van Helmont, chap. 76, ‘Things Received which are injected or cast in’, p. 569, ‘Recepta injecta’, p. 453.

⁵⁴¹ Van Helmont, chap. 76, ‘Things Received which are injected or cast in’, p. 569, ‘Recepta injecta’, p. 453.

⁵⁴² Van Helmont, chap. 105, ‘The Vital Air’, p. 734, ‘Aura vitalis’, p. 578: ‘Utpote quod illae luces sint ipsaemet vitae ac formae vitalium.’ See also, ‘the life of man is a formall light, and almost also the lightsom or clear sensitive Soul it self’, chap. 24, ‘The Blas of Man’, p. 179; ‘Blas humanum’, p. 147.

⁵⁴³ Van Helmont, chap. 109, ‘Life’, p. 744, ‘Vita’, p. 585.

⁵⁴⁴ Van Helmont, chap. 110, ‘Short Life’, p. 747, ‘Vita brevis’, p. 587.

⁵⁴⁵ Van Helmont, chap. 24, ‘The Blas of Man’, p. 179, ‘Blas humanum’, p. 147. This quotation seems to imply that Van Helmont thought he had seen the formal light in one of his visions.

⁵⁴⁶ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 146, ‘Imago fermenti’, p. 119.

⁵⁴⁷ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 144; ‘Imago fermenti’, p. 117.

⁵⁴⁸ Van Helmont calls it ‘a skie-coloured and obscure Splendour’; chap. 107, ‘The Flux, or flowing unto Generation’, p. 738, ‘Fluxus ad generationem’, p. 581: ‘splendore coeruleo & obscuro’.

⁵⁴⁹ Van Helmont, chap. 107, ‘The Flux, or flowing unto Generation’, p. 737, ‘Fluxus ad generationem’, p. 581: ‘Quae lux erat tanquam fulgor, e flamma, quam aqua vitae ardendo exhibit.’

body of animals is too opaque and gross to manifest such light. Van Helmont replied that invisibility is not a valid critique, since we can equally not see the life of animals, but we can perceive its effects.⁵⁵⁰

Later, Van Helmont may have pondered that this argument might be insufficient to convince sceptics. In *Ortus*, he changes his tack; he now argues that vital light can in some conditions be directly perceived by our senses, as in the case of the light that shines in the eyes of an animal or human.⁵⁵¹ The reason for this is that the vital lights shine under the influence of physical light.⁵⁵² Van Helmont also reasons by analogy, comparing vital lights with the dim light of the glow-worm, which is visible only at night and extinguished with the life of the animal.⁵⁵³

Still, he continues to affirm that vital lights are generally occult and can be uncovered only through alchemical operations: for instance, in the case of vegetables, the light can only be perceived by means of the liquor Alkahest.⁵⁵⁴ In this case as well, alchemy comes to the aid of his theory as an effective demonstration and testing tool.

Moreover, the doctrine of light has important applications in medicine. The light of the body can be easily penetrated by other lights which originate from the other living beings it takes in as nourishment: in other words, light feeds on light.⁵⁵⁵ Such influence can have positive and negative effects. An example of a negative effect is that of poisons being taken in by the body, which penetrate and eventually extinguish the light of the *Archeus*.⁵⁵⁶

Poisons must not be confounded with diseases, because the former were created by God and are hence endowed with a vital light, while the latter were not.⁵⁵⁷ Hence vital light belongs only to beings that have life directly bestowed by God. By comparison, diseases, although they are real entities, do not have a formal light, but

⁵⁵⁰ '30 Janvier 1631', p. 59.

⁵⁵¹ Van Helmont, chap. 19, 'The Image of the Ferment,' p. 146, 'Imago fermenti', p. 119; chap. 26, 'The Spirit of Life', p. 196, 'Spiritus vitae', p. 160; chap. 105, 'The Vital Air', p. 734, 'Aura vitalis', p. 578.

⁵⁵² Van Helmont, chap. 38, 'From the Seat of the Soul unto Diseases', p. 292, 'A sede Animae ad morbos', p. 237.

⁵⁵³ Van Helmont, chap. 26, 'The Spirit of Life', p. 196, 'Spiritus vitae', p. 160; chap. 106, 'the Vital Air', p. 734, 'Aura vitalis', p. 578.

⁵⁵⁴ Van Helmont, chap. 19, 'The Image of the Ferment,' p. 146, 'Imago fermenti', p. 119.

⁵⁵⁵ Van Helmont, chap. 76, 'Things Received which are injected or cast in', p. 569, 'Recepta injecta', p. 453.

⁵⁵⁶ Van Helmont, chap. 42, 'An Unknown Action of Government', p. 336, 'De ignota actio regiminis', p. 272.

⁵⁵⁷ Van Helmont insists in numerous occasions that God did not create diseases. See for instance, chap. 67, 'The Subject of inhearing, of Diseases, is in the point of Life', p. 532, 'In puncto vita subjectum inhaesionis morborum', p. 426. Van Helmont does not seem to think that animals have diseases as well.

borrow it or corrupt it from human beings. Hence diseases are defined as beings created by men due to Original Sin.⁵⁵⁸

One cannot overstate how important the formal light theory is to the thought of Van Helmont and his Christian philosophy. The theory allows him to postulate the theological doctrine of God's immanence in Creation in rather stark terms, as well as to provide a clear principle of individuation in bodies.⁵⁵⁹ It served his Christian purpose of arguing on behalf of the direct dependency of each creature upon God, while answering natural philosophical questions about the nature of life and form.

4.2.3.2.1. *Origin of Light Theory*

Van Helmont firmly believed that his light theory was a pure form of 'Christian Philosophy'.⁵⁶⁰ Indeed, light figures prominently in the Genesis account of Creation as the first product of the Word of God, *fiat lux*, 'let there be light'.⁵⁶¹ This light was different than that of the luminaries (the sun, moon and stars), which were the work of the fourth day.⁵⁶² This account caused many Biblical commentators to believe that this primordial light was not our mundane physical one but something of a different nature and significance.⁵⁶³

The importance of light in the Bible was further enhanced in the New Testament, particularly in the Gospel of St John, where it is associated with the Logos. Johannine writings refer to the incarnate Word as 'the life that was the light of men', and as the light of the world.⁵⁶⁴ Such an association of life and light could only inspire Van Helmont in his theory of the vital lights. He was further influenced in his theories by the identification of God as the 'Father of Lights' in St James.⁵⁶⁵

The prominence of light in the Old and New Testament cross-fertilised with the tradition of light derived from Platonic, Aristotelian and Neoplatonic speculation.

⁵⁵⁸ Van Helmont, chap. 67, 'The Subject of Inhearing, of Diseases, is in the Point of Life', p. 532, 'In puncto vita subjectum inhaesionis morborum', p. 426. For more on this topic please refer to the chapter 'Man'.

⁵⁵⁹ Compare this with Descartes, whose philosophical system did not manage to provide a convincing principle of individuation; Funkenstein, *Theology*, p. 73.

⁵⁶⁰ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 133, 'Ortus formarum', p. 108.

⁵⁶¹ Genesis 1:3.

⁵⁶² Genesis 1:14-1:15.

⁵⁶³ The tradition of assigning high importance to light can be found in Basil, *Hexameron*, 2.7 (PG 29:43-47), Augustine, *The Literal Meaning of Genesis*, trans. by John Hammond Taylor (New York, NY: Paulist Press, 1982), 1.16-17. For typical medieval views of light, see also Steneck, *Science and Creation*, p. 43.

⁵⁶⁴ John 1:4, 1:5, 1:9, 8:12, 9:5.

⁵⁶⁵ James 1:17.

Aristotle had asserted that light is not a body, but the form of the luminous body.⁵⁶⁶ Influenced by Stoic thought, Plotinus envisioned cosmogony as a progressively weaker emanation from the One.⁵⁶⁷ Although this emanation was not light *strictu sensu*, light was the closest analogy that he offered.⁵⁶⁸ The concept of the Universe as an emanation of light was formally rejected by Christian thinkers as contrary to the doctrine of Creation; however, the medieval *Book of Causes* (*Liber de causis*) transmitted the Neoplatonic ideas and ‘Christianised’ them by postulating a first creation, out of which the rest of the world emanated.⁵⁶⁹

The subsequent Christian tradition of light symbolism employed Neoplatonic ideas abundantly to envision light as a manifestation of the divine.⁵⁷⁰ The Fathers of the Church, and particularly St Augustine and Pseudo-Dionysius, were obvious sources to draw on. For St Augustine, the Trinity was a triune light, which we could have a vision of through the light of grace. Pseudo-Dionysius posits that there is a fundamental or ‘primal’ light which is a spiritual manifestation of God the Father; material light is only an image of this immaterial light.⁵⁷¹

In parallel with the Christian tradition, an interest in light in the context of natural philosophy was developed within medieval Islam, as Arab natural philosophers creatively employed Neoplatonic and Aristotelian ideas to create theories of light. An influential speculation was that of Al-Kindi (801-873), with whose ideas Van Helmont was certainly familiar.⁵⁷² Al-Kindi imagined the universe as a wide network of rays emanated by every being existent in it.⁵⁷³ This remarkable idea may have encouraged Van Helmont to postulate the pervasiveness of lights in the constitution of the universe. Another source for Van Helmont’s theory of light as form is Avicenna, who used Aristotle’s views to present the process of cognition as the Active Intellect radiating intelligible forms into the human mind in a manner similar to light.⁵⁷⁴

⁵⁶⁶ Aristotle, ‘On the Soul’, in *The Complete Works of Aristotle*, I, 2.7.418b13-19.

⁵⁶⁷ Plotinus, *Enneads*, trans. by A. H. Armstrong, 3 vols (London: Heinemann, 1966-67), II, 2.4.15.

⁵⁶⁸ Plotinus, *Enneads*, IV, 3.17.13; see also David C. Lindberg, ‘The Genesis of Kepler’s Theory of Light: Light Metaphysics from Plotinus to Kepler’, *Osiris*, 2 (1986), 4-42 (p. 10).

⁵⁶⁹ Gilson, *Christian Philosophy in the Middle Ages*, pp. 435-437.

⁵⁷⁰ James McEvoy, ‘The Metaphysics of Light in the Middle Ages’, *Philosophical Studies* 26 (1979), 126-145.

⁵⁷¹ Pseudo-Dionysius, ‘Celestial Hierarchy’, pp. 145-146.

⁵⁷² A Latin manuscript on Al Kindi’s rays was found amongst the papers the Inquisition confiscated from Van Helmont in 1634.

⁵⁷³ Thorndike, *A History of Magic and Experimental Science*, I, 642-646.

⁵⁷⁴ Jon McGinnis, *Avicenna* (Oxford: Oxford University Press, 2010), pp. 133-137. Note that Avicenna’s theory of the Active Intellect is formally different than that of the Given of Forms (*dator formarum*), which can also be found in his works; as McGinnis observes, ‘all evidence suggests that Avicenna saw the Active Intellect and the Given of Forms as two names for a single entity’, pp. 135-136.

Once this Arab tradition of light symbolism became known to the West in the twelfth century, it cross-fertilised with Christian thought to create original syntheses. The most famous of these was the light metaphysics of Robert Grosseteste (c.1170-1253), the bishop of Lincoln, who envisioned Creation as a procession of light. Based on Aristotle and Avicenna's ideas, Grosseteste originated the concept that lights are the first forms, an idea that was employed by Van Helmont.⁵⁷⁵ St. Bonaventure (1221-1274) also contributed to this tradition, proposing a hierarchy of light-forms originating from God.⁵⁷⁶ Roger Bacon (c.1214-1294) in his *Multiplication of Species* elaborated on Grosseteste's vision by postulating a theory of light radiating its likenesses from agents to recipients.⁵⁷⁷

In chapter 4.1 On God we have also seen that the theory of God as form-giver, *dator formarum*, was transmitted from Avicenna to the Latin West, where it was taken up by some theologians, including Albertus Magnus, John Buridan and Marsilio Ficino.⁵⁷⁸ This theory seems to have been associated directly with light metaphysics by Albertus Magnus, who affirms that

according to Avicenna and to those who posit the giver of forms, the form of each thing is nothing else but the ray of the intelligence, or of the first cause...the form is not the embodied light of the first cause, but its likeness caused by it. And it is in this way that one should understand what Dionysius says, that the divine ray appears above all beings, not as embodied, but so that each thing rises towards its likeness, as far as it can.⁵⁷⁹

As Hasse observes, the form theory is here associated with both Avicenna's speculation on the Active Intellect and *dator formarum*, and the divine ray of Pseudo-Dionysius.⁵⁸⁰

The Renaissance and early modern Europe was indeed a period when the symbolism of light reached its peak of popularity.⁵⁸¹ Nicholas of Cusa, Marsilio Ficino and Pico della Mirandola used the symbolism of light in their works. Ficino in particular

⁵⁷⁵ James McEvoy, *The Philosophy of Robert Grosseteste* (Oxford: Clarendon, 1982), pp. 151, 161.

⁵⁷⁶ Lindberg, 'The Genesis of Kepler's Theory of Light', p. 18.

⁵⁷⁷ David C. Lindberg, 'Roger Bacon on Light, Vision and the Universal Emanation of Force', in *Roger Bacon and the Sciences: Commemorative Essays*, ed. by Jeremiah Hackett (Leiden: Brill, 1997), pp. 244-274 (p. 247). As already noted, Van Helmont was familiar with Roger Bacon.

⁵⁷⁸ See above, chap. 4.1. On God.

⁵⁷⁹ Albertus Magnus, 'Super Dionysium de divinis nominibus', in *Opera omnia*, 37 vols (Munster: Aschendorff, 1972), 37, p. 15.

⁵⁸⁰ Hasse, 'Avicenna's "Giver of Forms"', p. 243.

⁵⁸¹ Kurt Goldammer, 'Lichtsymbolik in philosophischer Weltanschauung, Mystik und Theosophie vom 15. bis zum 17. Jahrhundert', *Studium Generale* 13 (1960), 670-682.

may have been a source for Van Helmont's speculation; he maintained, probably on Thomist grounds, that light is similar to soul (*anima*)⁵⁸² and further added that:

On the earth's surface light [*lumen*], infused into various mixtures of the four elements, especially the earthly, assumes the forms of various colors, like corpuscles whose little souls [*animulae*] are scintillae of light infused into them. If you could separate these [*scintillae*] from those mixtures and preserve them, you would perhaps see what rational souls are like when separated from body.⁵⁸³

However, the strongest contemporary influence on Van Helmont was the Paracelsian movement, and its theory of the two lights, that of Nature and of Grace. As Goldammer has pointed out, the Renaissance symbolism of light reached its peak of influence and comprehensiveness in Paracelsus.⁵⁸⁴ As mentioned in chapter 3, the German physician formulated the concept of the two lights, of Nature and of Grace, as rough analogies of the two books, of Nature and of Scripture.⁵⁸⁵ Both lights were divine, originating directly from God, or the Holy Spirit.⁵⁸⁶

Paracelsus used the light symbolism pervasively, reiterating the rather commonplace ideas that the mind and the mystical experience are lights. However, his idea of the Light of Nature was much more idiosyncratic and influential. Paracelsus talked about the Light of Nature as present throughout the universe.⁵⁸⁷ He found it both in the soul of man, and in the fire ensuing from the internal 'star' (*astrum*) of each being.⁵⁸⁸ Hence this light was immanent within the bodies of existing things, an idea which Van Helmont drew on for his own conception of light as intrinsic form.

Other Paracelsians might have influenced Helmontian concepts. Heinrich Khunrath came even closer to Van Helmont's views, affirming that the Light of Nature is the 'Life of the World'.⁵⁸⁹ For Khunrath, light is the essence of nature, and the

⁵⁸² Marsilio Ficino, 'De lumine', 9, 13 in *Opera Omnia* (Basel: Heinrich Petri, 1576), I, 979, 982. St Thomas Aquinas had maintained, using Aristotle and Avicenna as guidance, that the Active Intellect is a light that makes the images of the senses intelligible. See William B. Ashworth Jr, 'Light of Reason, Light of Nature: Catholic and Protestant Metaphors of Scientific Knowledge', *Science in Context* 3:1 (1989), 89-107 (p. 92).

⁵⁸³ Ficino, 'De lumine', 13 in *Opera Omnia*, I, 982.

⁵⁸⁴ Goldammer, 'Lichtsymbolik', 670-682.

⁵⁸⁵ Hannaway, *Chemists and the Word*, p. 6.

⁵⁸⁶ Goldammer, 'Lichtsymbolik', pp. 676-677.

⁵⁸⁷ Pierre Deghayé, 'La Lumière de Nature chez Paracelse', in Braun, Lucien et al, *Paracelse* (Paris: Albin Michel, 1980), pp. 53-89 (p. 55).

⁵⁸⁸ Theophrastus Paracelsus, *Selected Writings*, ed. by Jolande Jacobi (New York, NY: Bollingen, 1979), p. 103. Deghayé, 'La Lumière', p. 59.

⁵⁸⁹ Khunrath, *Vom Hylealischen...Chaos*, p. 42: '...Leben der Welt ist das Licht der Natur'.

common stuff of heaven, earth and water, of metals, minerals and stones.⁵⁹⁰ The alchemist Nicholas Hill (fl. 1601) argued that light bestowed form and life on matter.⁵⁹¹ The anonymous ‘Cabala chemica’ maintained that ‘light is form, the living state and the efficacious virtue’.⁵⁹²

4.2.3.3. *Semina*

The presence of a seminal theory within Van Helmont’s writings has been duly emphasised by several scholars, particularly Hiro Hirai, Antonio Clericuzio and Jole Shackelford.⁵⁹³ As they all observed, his theory is influenced by Petrus Severinus, who drew on the seminal theories present in the works of St Augustine, Fernel and Paracelsus.⁵⁹⁴ Severinus considered the *semina* anterior to the four elements and believed that there were two categories of *semina*, the original ones, which remain on an ideal plane, and the ‘real’ ones, which are only a copy of the original.⁵⁹⁵ The latter rested in matter until their appointed time, when they ‘awoke’ to action.⁵⁹⁶

In essence, Severinus’s *semina* theory is an elaboration on the Augustinian ideas of the *rationes seminales*. For St Augustine, the *rationes seminales* are spiritual principles engendered by God in the world.⁵⁹⁷ St Augustine believed that these *rationes seminales* were not continuously inserted in matter, but were placed there in the beginning of time as latent causes, ‘pre-programmed’ to be born at a certain point in time.⁵⁹⁸

The theory of the *rationes seminales*, less present in the high Middle Ages, had become part of late Scholastic natural inquiry.⁵⁹⁹ Although there was some similarity

⁵⁹⁰ Khnurath, *Vom Hylealischen...Chaos*, p. 42; see also Szulakowska, *Alchemy of Light*, p. 92.

⁵⁹¹ Grant McColley, ‘Nicholas Hill and the Philosophia Epicurea’, *Annals of Science* (1939), pp. 390-405.

⁵⁹² ‘Cabala chemica’, *Theatrum chemicum*, 6 vols (Strasbourg: Eberhard Zetzner, 1659), VI, 380. Strictly speaking, this ‘Cabala’ could be influenced by Van Helmont as it appeared after his death.

⁵⁹³ Hirai, *Le concept de semence*, p. 428; Clericuzio, ‘From Van Helmont to Boyle’, pp. 309-310; Shackelford, *A Philosophical Path*, pp. 241- 244. Pagel had also remarked that ‘the whole of van Helmont’s work can be conceived as a search for the “semina”, i.e. the active principles in beings which are responsible for their specific form and function’, in ‘The Religious and Philosophical Aspects of van Helmont’s Science and Medicine’, p. 16.

⁵⁹⁴ Hirai, *Le concept de semence*, p.225.

⁵⁹⁵ Shackelford, *A Philosophical Path*, p.165.

⁵⁹⁶ Hirai, *Le concept de semence*, p. 265.

⁵⁹⁷ Hirai, *Le concept de semence*, p. 27.

⁵⁹⁸ St Augustine, *The Literal Meaning*, VI, 10, pp. 189-190; see also Hirai, *Le concept de semence*, p. 27.

⁵⁹⁹ For St Augustine’s ideas of the *rationes seminales*, see Etienne Gilson, *The Christian Philosophy of St Augustine* (New York, NY: Random House, 1960), pp. 206 – 209. On the late medieval manifestations, see Steneck, *Science and Creation*, pp. 34-35. Steneck considers Henry of Langenstein (d 1392) as espousing a typical late Scholastic view of the world.

between them and Aristotelian forms, the *semina* were associated with a potentiality which had been sown in matter by God during the first six days of Creation.⁶⁰⁰ Their Christian connotation and Augustinian authority made them attractive to Renaissance philosophers such as Fernel and Severinus, who were seeking to replace Aristotelian Scholasticism with a more Christian form of thought.⁶⁰¹

Early and middle Van Helmont adopted the Severinian view on the importance of the *semina* as immaterial principles of creation, although he did not embrace the dual-*semina* theory, which had a strong Platonic bias and did not have St Augustine's seal of approval. In *Eisagoge* (1607) as well as 'De Spadanis' (1624) the *semina* are perceived as 'invisible and incorporeal' originators of all life in the Universe.⁶⁰² In themselves, they are free from any such qualities as colours, quantity, and taste.⁶⁰³ The *semina* contain the 'Reasons, Gifts, Knowledges, Progresses, Appointments, Offices, and Durations' of all beings.⁶⁰⁴ Hence, 'whatsoever things are made in Nature, we must reckon them to be made from a necessity, and Flux of a Seed.'⁶⁰⁵

However, in the later *Opuscula medica inaudita* and *Ortus medicinae*, the seminal theory undergoes a major change, and becomes part of Van Helmont's developed philosophy of generation. This philosophy, never analysed before by scholars, posits a dual manner of coming-into-being: a pre-formed matter and a juxtaposed form (life).⁶⁰⁶ As we have already seen in point 4.2.3.2 The Formal Lights, the form is inserted by God as form-giver into matter. Hence, as Van Helmont puts it, the *semen* is the craftsman of the body, but not the maker of the form.⁶⁰⁷ Yet form would never descend into a body that would not be 'disposed' to receive life; Van Helmont strongly believes that the body must be organised and fitted with instruments

⁶⁰⁰ Steneck, *Science and Creation*, pp. 34-35.

⁶⁰¹ Jean Fernel, *On The Hidden Causes Of Things: Forms, Souls, And Occult Diseases In Renaissance Medicine* (Leiden: Brill, 2005), I, 10, 353; for Severinus use of Fernel, see Hirai, *Le concept de semence*, pp. 263-265.

⁶⁰² Van Helmont, ('De Spadanis fontibus'), chap. 95, 'Another Paradox', p. 692, 'Paradoxum alterum', p. 548.

⁶⁰³ Van Helmont, ('De Spadanis fontibus'), chap. 96, 'A Third Paradox', p. 693, 'Paradoxum tertium', p. 549.

⁶⁰⁴ Van Helmont, ('De Spadanis fontibus'), chap. 96, 'A Third Paradox', p. 693, 'Paradoxum tertium', p. 549: 'Natura scilicet essentia, existentia, donum, scientia, duration, destination, primum in radice seminum connexa fuerunt'.

⁶⁰⁵ Van Helmont, ('De Spadanis fontibus'), chap. 100, 'A Paradox of Supplies, being of the number of Judiciary Paradoxes', p. 706, 'Supplementorum Paradoxum numero criticum', p. 558: 'Quaecunque namque in natura fiunt, seminis necessitate, & fluxu fieri, putandum est.'

⁶⁰⁶ Generally on preformation in early modern Europe, see also Richard Arthur, 'Animal Generation and Substance in Sennert and Leibniz', in *The Problem of Animal Generation in Early Modern Philosophy*, ed. by Justin E.H. Smith (Cambridge: Cambridge University Press, 2006), pp. 147-174 (pp. 148-149).

⁶⁰⁷ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 133, 'Ortus formarum', p. 108.

in order to accommodate the light of form.⁶⁰⁸ This is where the seminal theory comes in place, being comprised of three chief components: the *semina* themselves, the Ferments, and the *Archeus*. Henceforth in this section I will focus on the *semina*, with the following two addressing the others components of the theory.

First of all, Van Helmont is concerned to differentiate between the *semina* and the Ferments. This is the more important as, in the later Van Helmont's theory of generation, the Ferments take up the Augustinian role of *rationes seminales* from the *semina*, being described as 'gifts' and 'reasons'.⁶⁰⁹ Van Helmont asserts that the *semen* cannot be a principle of bodies, as the Ferment comes before it and engenders it in matter.⁶¹⁰ The *semen* is hence less fundamental than Ferments; it is mortal and transitory, like the life that it carries within it.⁶¹¹ The *semen* is nevertheless important given the role of the efficient cause of the body, being both inward and essential.⁶¹²

To some extent the *semen* also loses some of its active nature, as the *semen* is mainly envisioned as a preserver of the active seminal agent, the *Archeus*.⁶¹³ Thus, it is described as a kernel or 'container of figure, and properties'.⁶¹⁴ *Semina* can be described as carrying the blueprint of the future plant or being.⁶¹⁵ Thus, Van Helmont assigns an important role for *semina* as carriers of hereditary information across generations; he points out that a dog's natural behaviour as well as its particular personality is foreseen in the *semen*.⁶¹⁶ In a similar way, he attributes specific gender behaviour, change of attitude with age, but also many of the personal traits (inclinations) to the *semen*.⁶¹⁷ To explain his perspective, Van Helmont divides inclinations into four categories: an inclination toward a certain profession, a moral or ethical inclination, a vital inclination (referring to health and length of life), and an inclination of fortune. The first inclination, he says, is given directly by God, but the rest originate from the *semina*. In

⁶⁰⁸ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 133, 'Ortus formarum', p. 108.

⁶⁰⁹ This was already noticed by Hirai, *Le concept de semence*, p. 456.

⁶¹⁰ As the *vis insita terrae* (the power inside the earth), the ferment 'begets with Childe' the archetypal matter, water. See Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 31, 'Causae et initia naturalium', p. 30.

⁶¹¹ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 31, 'Causae et initia naturalium', p. 30: 'Ubi alias fermentum principians...immutabile & constans perseverat, nec vicissitudini, aut morti subjectum....Dum alias, semen in rebus, ejusque vis fermentalis, est res, quae exoleta suae tragoediae scena, definit in individualem Epilogum'.

⁶¹² Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 29, 'Causae et initia naturalium', p. 28: 'Est ergo semen, causa efficiens, interna, immediata herbae productae.'

⁶¹³ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 29, 'Causae et initia naturalium', p. 28.

⁶¹⁴ Van Helmont, chap. 71, 'The Birth or Original of a Disease Image', p. 553, 'Ortus imagines morbosae', p. 442.

⁶¹⁵ Van Helmont, chap. 59, 'A Modern Pharmacopolion and Dispensatory', p. 458, 'Pharmacopolium ac Dispensatorium modernorum', p. 367.

⁶¹⁶ Van Helmont, chap. 20, 'Stars Necessitate', p. 124, 'Astra necessitant', p. 100.

⁶¹⁷ Van Helmont, chap. 20, 'Stars Necessitate', p. 124, 'Astra necessitant', p. 101.

other words, our tendency toward moral behaviour, specific diseases and luck are dictated by heredity.⁶¹⁸

By advocating such an extensive impact of the *semina* on human life, Van Helmont clearly goes beyond the Scholastic understanding of heredity, and he is strongly aware of it.⁶¹⁹ His motivations are drawn from Augustinian thought and its view of the seminal transmission of Original Sin. St Augustine believed that the *semen* perpetuated Adam's Sin and in some sense damaged the souls of all ensuing humans.⁶²⁰ Indeed, Van Helmont's view of the *semina* expresses strong sexual connotations.⁶²¹ He firmly believes that God created human beings without a seed; it was only through the Tree of Good and Evil that they actually acquired a seed.⁶²²

This perspective determines Van Helmont to view *semina*, in the specific case of human beings, with disapprobation. All evil comes by means of the *semen*, including inclination toward evil, immorality, disease, and death; our only defence against it is the grace of God. Outside humankind, however, *semina* are natural, and Van Helmont views them as neutral, carrying neither good nor evil. Yet even in this case they maintain a sexual dimension. Here one senses that another association is at play: that of the masculine / active – feminine / passive dichotomy. Thus, he affirms that beings arose through the intercourse between *semina* and water. This view can be found throughout Van Helmont's work. It is present in 'De Spadanis' as well as on the late 'A Treatise on the Disease of the Stone'.⁶²³ In the *Ortus*, the *semina* order and even 'abduct' water into 'fruit'; matter is 'begotten with Childe by the Seed'.⁶²⁴ It is clear that the interaction of water (as female) and *semen* (as male) creates a generative 'marriage' whereby the *semina* transmute the otherwise immutable water into physical bodies. It is this sexual connotation that Newman and Hirai have noticed in Van Helmont's writings.⁶²⁵

⁶¹⁸ Van Helmont, chap. 20, 'Stars Necessitate', p. 124, 'Astra necessitant', p. 101.

⁶¹⁹ Van Helmont, chap. 20, 'Stars Necessitate', p. 125, 'Astra necessitant', p. 102.

⁶²⁰ Rist, *Augustine: Ancient Thought Baptized*, pp. 317-320, 326.

⁶²¹ This has already been noted by Hirai, *Le concept de semence*, p. 448.

⁶²² Van Helmont, chap. 91, 'The Enterance of Death into Humane Nature', p. 650, 'Mortis introitus naturam humanam', p. 514.

⁶²³ Van Helmont, chap. 94, 'A Supply, concerning the Fountains of the Spaw: The First Paradox', p. 689, 'De Spadanis fontibus: Paradoxum primum', p. 546; *Opuscula medica inaudita*, 'Treatise on the Disease of the Stone', chap. 1, p. 830; 'Tractatus de Lithiasi', chap. 1, 'Petrificatio', p. 651.

⁶²⁴ Van Helmont, chap. 12, 'Essay of a Meteor', p. 65, 'Progymnasma meteori', p. 55: 'Aqua semper enim ideo, tota mane ut est, vel sine ulla trium divisione, transformatur in fructus, vaditque, quo illam vocant, & abducunt semina'; chap. 4, 'The Causes and Beginnings of Natural Things', p. 32, 'Causae et initia naturalium', p. 30: 'considero materiam plerumque semine impraegnata'.

⁶²⁵ Newman, 'The Corpuscular Theory', pp. 180-181, Hirai, *Le concept de semence*, p. 454. Neither of them observed the fundamentally Augustinian origin of these ideas.

Such a view suggests that for Van Helmont, the *semina* can also be associated with animal and human sperm. Indeed, the human and vegetable seeds are instances of the category of *semina*. It is equally important to note that for Van Helmont the *semina* are real, corporeal entities, if not always visible, and should not be taken ‘by way of a Metaphor, a certain Equivocal thing, or proportionable resemblance, under the licentious allusion of Similitude’.⁶²⁶

From the above analysis it is clear that the later Van Helmont’s *semina* theory moves away from its Severinian source; his commitment to Christian philosophy now leads him to adopt a more Augustinian stance. The later Van Helmont takes the view that the *rationes seminales* of St Augustine are not the same as Severinus’s *semina*; they are something much more basic, spiritual and immutable. He now sees the *semina* as being the material products of the *rationes seminales*, in a view that closely reflects St Augustine in *The City of God* and elsewhere.⁶²⁷

4.2.3.4. *Ferments, the Rationes Seminales*

As already mentioned in the previous section, Ferments acquire in the later Van Helmont’s thought an unparalleled importance and an essential role in generation. Van Helmont calls ‘principiating’ Ferments the universal agents of biological change.⁶²⁸ Yet, as with many of Van Helmont’s ideas, the concept of the Ferments is complex, multivariate and hence liable to generate some confusion.

Van Helmont essentially posits two types of Ferments, whose role and manifestation are very different from each other. He differentiates the ‘principiating’ Ferment (*fermentum principians*), the primordial ‘trigger’ of generation, from the ordinary, seminal ferment (*fermentum seminale*). The former does not come into composition of bodies and is immortal, while the latter is ‘frail and perishing’.⁶²⁹ Pagel, for instance, failed to distinguish between the two, with the result that his description of

⁶²⁶ Van Helmont, *Opuscula medica inaudita*, ‘Treatise on the Disease of the Stone’, chap. 1, p. 830; ‘Tractatus de Lithiasi’, chap. 1, ‘Petrificatio’, p. 651: ‘Non est autem hoc semen in mineralibus, per Metaphoram, aliquod aequivocum, aut analogon, sub licentiosa similitudinis allusione.’

⁶²⁷ St Augustine, *The City of God*, in *The Works of Saint Augustine*, ed. by J.E. Rotelle (New York, NY: New City Press, 1990), VI-VII, 22:14, *The Good of Marriage*, in *The Works of Saint Augustine*, ed. by J.E. Rotelle (New York, NY: New City Press, 1999), IX, 20:23. See also Rist, *St Augustine: Ancient Thought Baptized*, p. 319, n. 4.

⁶²⁸ According to the Merriam-Webster Dictionary online, a ferment (noun) is a living organism (as a yeast) that causes fermentation by virtue of its enzymes; ‘Ferment’ in *Merriam-Webster Dictionary*, <<http://www.merriam-webster.com/dictionary/ferment>> [accessed 1 June 2011].

⁶²⁹ Van Helmont, chap. 4, ‘The Causes and Beginnings of Things’, p. 31, ‘Causae et initia naturalium’, p. 30: ‘Ast seminale fermentum, non est illud, quod alterum dorum originalium principiorum: sed productum ejusdem seminis individualis, ideoque caducum & interiens’.

Ferments is less than enlightening.⁶³⁰ Since for Van Helmont the principiating Ferments are more important to his Christian Philosophy, I will concentrate on these here.

Van Helmont defines the ‘principiating’ Ferment in the following manner:

[it is] a formall created Being, which is neither a substance nor an accident, but a neutrall thing framed from the beginning of the World in the places of its own Monarchie, in the manner of light, fire, the Magnall or sheath of the Air, Forms, &c. that it may prepare, stir up, and go before the Seeds.⁶³¹

Elsewhere, Van Helmont states that the Ferments ‘are essentiall causes for the transmutations of things’.⁶³² In other words, principiating Ferments are forces of transformation, agents that produce substantial change within all beings in the world.

Indeed, no generation or growth can take place, Van Helmont explains, without the intervention of a principiating Ferment.⁶³³ Generation of all bodies is accomplished by only two beginnings (*principia*), water and Ferment, which produces the *semen*.⁶³⁴ Hence ‘all bodies primitively and materially are made onely of water through a seed being attained by a ferment’.⁶³⁵ The principiating Ferment activates the *semen* present in water, which in turn begins to generate offspring.

By positing that the Ferment is the fundamental principle of all things that exist, Van Helmont is essentially attacking the primordality of the *tria prima* of Paracelsus, substituting the Ferment instead.⁶³⁶ The main argument on behalf of Ferment as principle is related to its stability; Ferments are immutable and immovable, almost resembling Aristotle’s immovable mover.⁶³⁷ Ferments are forces implanted in specific

⁶³⁰ Pagel’s treatment of ferments is strangely put under the heading of ‘Odours’; he affirms that ferments are contained in the *semen*, *Joan Baptista Van Helmont*, pp. 71-74, see also table 2 at p. 73; thus he fails to distinguish the seminal ferments from the more important ‘principiating’ Ferments.

⁶³¹ Van Helmont, chap. 4, ‘The Causes and Beginnings of Natural Things’, p. 31, ‘Causae et initia naturalium’, p. 29: ‘Est autem fermentum, ens creatum formale, quod neque substantia, neque accidens: sed neutrum, per modum lucis, ignis, magnalis, formarum, &c, conditum a mundi principio, in locis suae Monarchiae, ut semina praeparet, excitet, et precedat.’

⁶³² Van Helmont, chap. 26, ‘Spirit of Life’, p. 195, ‘Spiritus vitae’, p. 159.

⁶³³ Van Helmont, chap. 57, ‘The Toyes or Dotages of a Catarrhe or Rheume’, p. 430, ‘Catharri deliramenta’, p. 346.

⁶³⁴ Van Helmont, chap. 4, ‘The Causes and Beginnings of Natural Things’, p. 31, ‘Causae et initia naturalium’, p. 29: ‘Duo igitur, nec plura, sunt corporum, & causarum corporalium prima initia. Elementum aquae nimirum, sive initium ex quo; & fermentum, sive initium seminale, per quod, id est dispositivum, unde mox producitur semen in materia’.

⁶³⁵ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 116, ‘Imago fermenti’, p. 95: ‘Corpora cuncta primitive, atque materialiter ex aqua sola fiant; acquisito per fermentum semine’.

⁶³⁶ Van Helmont, chap. 4, ‘The Causes and Beginnings of Things’, p. 31, ‘Causae et initia naturalium’, p. 29.

⁶³⁷ Van Helmont, chap. 4, ‘The Causes and Beginnings of Things’, p. 31, ‘Causae et initia naturalium’, p. 30.

locations (*vis locis insita*), which give each generated being a particular character.⁶³⁸ For instance, different fruit bud in different places, but if their ‘Seeds [are...] removed to another place, we see for the most part, to come forth more weakly, as counterfeit young.’⁶³⁹

The force of principiating Ferments, Van Helmont adds, is also evident in spontaneous generation, where Ferments act directly upon matter, without the means of *semen*. In this sense, Van Helmont divides the principiating Ferments into two types: the ones that contain a flowing, seminal aura, while the other is simply the beginning of change.⁶⁴⁰ As Newman pointed out, ‘it is not hard to see that Van Helmont is trying here to explain the difference between sexual and spontaneous generation’.⁶⁴¹ Spontaneous generation, such as when flies are begotten of excrement or mice are born when a foul shirt is kept in a vessel filled with wheat, suggests the power of the principiating Ferment and its control over the process of generation.⁶⁴²

Given this elevated status of Ferments, it is unsurprising that for the Flemish philosopher they are divine ‘gifts’ (*dona*) and roots (*radices*) of all things, and not subject to change or death.⁶⁴³ The Ferments rest at the very base of the Universe: ‘they are placed by the Creator the Word, that they may be the Roots of successive seeds even to the end of the World’.⁶⁴⁴

As Hirai has observed, the reference to ferments as *dona* and *radices* strongly resembles Petrus Severinus, who had used this language in relationship with *semina*.⁶⁴⁵ It is clear that the later Van Helmont transferred the Severinian description of ‘gifts’, ‘roots’ and ‘reasons’ from the *semina* to the Ferments.

Van Helmont set the Ferments closely in association with St Augustine’s *rationes seminales*. Just as for St Augustine, the Helmontian principiating Ferments are

⁶³⁸ Van Helmont, chap. 4, ‘The Causes and Beginnings of Things’, p. 31, ‘Causae et initia naturalium’, p. 30.

⁶³⁹ Van Helmont, chap. 4, ‘The Causes and Beginnings of Natural Things’, p. 31, ‘Causae et initiae naturalium’, p. 30: ‘semina alio translata, plerumque imbecilius provenire videmus, ceu foetus supposititios’.

⁶⁴⁰ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 112, ‘Imago fermenti’, p. 91.

⁶⁴¹ Newman, ‘The Corpuscular Theory’, p. 180. It should be noted, however, that Van Helmont is not talking only about sexual generation, but any type of generation by means of *semen*, including in his view minerals and metals.

⁶⁴² Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 112, ‘Imago fermenti’, p. 92.

⁶⁴³ Van Helmont, chap. 4, ‘The Causes and Beginnings of Things’, p. 31, ‘Causae et initia naturalium’, pp. 29-30: ‘Sunt itaque fermenta, dona, ac radices, a Creatore Domino stabilitae, in seculorum consummationem ... Quod autem de ferment, terrae indito, dixi, idipsum partier in aer, & aqua reperiens. Neque enim Radicibus, Donis, Rationibus fermentalibus carent, quae stabiles, locis, & provinciis dicatos fructus profferunt... Ubi alias fermentum principians, in elementorum finibus conditum, immutabile, & constans perseverat, nec vicissitudini, aut morti subjectum’.

⁶⁴⁴ Van Helmont, chap. 22, ‘Magnum Oportet’, p. 155, ‘Magnum oportet’, p. 126: ‘Ideoque, a Conditore verbo locata, ut sint radices seminum successorum, in mundi usque finem.’

⁶⁴⁵ Hirai, *Le concept de semence*, p. 456.

spiritual forces engendered in matter by the God-Word.⁶⁴⁶ Van Helmont understands *rationes* in voluntaristic terms to mean God's intentions that are placed into matter to actualise at the right moment as part of the divine plan.⁶⁴⁷ Hence the Ferment is a potentiality activated in time according to God's will: 'it is a power implanted in places by the Lord the Creator, and there placed, for ends ordained to Himself in the succession of days'.⁶⁴⁸

The association between Ferments and *Rationes seminales* is unique to Van Helmont, and, besides his religious concerns, reflects his alchemical interests. The fundamentally alchemical source of Van Helmont's Ferments has been duly noted by Pagel, although he substantiated the claim by references drawn mainly from his contemporaries Edward Jorden (1569-1633) and Anton Billich (1598-1640), whom Van Helmont may not have read.⁶⁴⁹

In fact, Van Helmont most likely drew his inspiration from medieval medical alchemy, where ferments were seen as mysterious life-forces. In the *Rosarium philosophorum* attributed to Arnald of Villanova, first published in 1550, the ferment is compared to the soul, acting both as a life-giver and a bestower of form.⁶⁵⁰ The ferment is also praised in the Pseudo-Lullian *Testamentum* and the 'Semita semitae' as a spirit which transmutes matter.⁶⁵¹ In line with these views, Paracelsus also regarded fermentation as a fundamental process of the formation of the body: 'No small art in nature is involved in the ripening of grain [...] For in it is the elixir and highest [degree of] fermentation, surpassing all other things in nature'.⁶⁵²

Van Helmont's focus on Ferment as cause of change is an example of how he attempted to supplant the Aristotelian-Scholastic framework with ideas originating in alchemical practice. With Scholastics, heat was a cause of change. It was a concept that was pervasive throughout the Middle Ages and had been adopted by most medieval alchemists as well. At the same time, the practice of fermentation suggested to alchemists that there was something else involved in the process than simply heat,

⁶⁴⁶ For the creative role of the Word in Van Helmont, see above, 4.1.4.2.

⁶⁴⁷ Van Helmont, chap. 103, 'The Properties of External Things', p. 725, 'Externorum proprietates', p. 571: '...sed ob rationes sibi ab aeterno praecognitas, quasque in naturam fixit stabiles.'

⁶⁴⁸ Van Helmont, chap. 4, 'The Causes and Beginnings of Things', p. 31, 'Causae et initia naturalium', p. 30: 'Est ergo vis locis insita, a Creatore Domino, ibidem locata, ad fines in successione dierum sibi ordinatos'.

⁶⁴⁹ Pagel, *Joan Baptista Van Helmont*, pp. 81-82.

⁶⁵⁰ *Rosarium Philosophorum*, p. 20.

⁶⁵¹ 'Semita semitae', in Arthur Dee, *Fasciculus chemicus* (London: J. Flesher, 1650), p. 113; 'Pseudo-Lulli Theorica & Practica', p. 92.

⁶⁵² Paracelsus, 'Paragranum', in *Paracelsus: Essential Theoretical Writings*, p. 227.

hence the growing usage of the ‘ferment’ concept. Van Helmont relates his experience of seeing an alchemist

who every yeer did fill a Hogs-head of *Vinegar* to two third parts with water of the River *Rhoan* [*Rhone*]: he exposed it to the heats of the Sun, and so he transchanged the water in it self without savour, into true *Vinegar*, a ferment being conceived out of the Hogs-head [...] the ferment of a vessel doth by its odour alone change *Water* into *Vinegar*.⁶⁵³

The example above suggests that, in addition to alchemical authority, it was the empirical observation of everyday ferment that gave Van Helmont the idea of associating it with the *rationes seminales*. Van Helmont believed that the Ferment essentially divides a body into its atoms, causing it to become volatile and transmute into another being.⁶⁵⁴ This process, Van Helmont suggests, is similar to the alchemical maxim of *solve and coagula*; the Ferment first destroys a body then rebuilds a new one.⁶⁵⁵ Thus Van Helmont compares the Ferment with fire, which acts similarly, if much more weakly.⁶⁵⁶

For Van Helmont, it was insufficient to propose a principiating agent such as the Ferment without unpacking the mechanism by which it acts on matter. First of all, he posits that a process is needed, which is putrefaction. Putrefaction, Van Helmont points out, is not corruption, a term that reflects traditional Aristotelian speculation.⁶⁵⁷ Rather, it is the process whereby a vital light (or form) is extinguished and a new one is born. For instance, the eggs of birds putrefy before constituting the chick.⁶⁵⁸ Thus, putrefaction is simultaneously an end and a beginning, and appears as a notion that is deeply rooted in alchemical speculation. In positing a fundamental role for putrefaction, Van Helmont was also probably inspired by Paracelsus, who maintained that ‘putrefaction is the highest grade, and the first initiative to generation’.⁶⁵⁹

The process of fermental generation also needs an instrument, and this Van Helmont identifies as the ‘odour’. Pagel has already observed that the odour is an

⁶⁵³ Van Helmont, chap. 28, ‘A six-fold Digestion of Human Nourishment’, p. 219; ‘Sextuplex digestion alimenti humani’, p.

⁶⁵⁴ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 113, ‘Imago fermenti’, p. 93; see also Newman, ‘The Corpuscular Theory’, pp. 179-180.

⁶⁵⁵ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 115, ‘Imago fermenti’, p. 94.

⁶⁵⁶ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 116, ‘Imago fermenti’, p. 95.

⁶⁵⁷ According to Van Helmont, only matter can be corrupted but not immaterial forces.

⁶⁵⁸ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 113, ‘Imago fermenti’, p. 92.

⁶⁵⁹ Paracelsus, ‘De Natura Rerum’, in *Paracelsus: Essential Readings*, p. 174

‘active principle’ of the ferment and operates by penetration.⁶⁶⁰ Beings are disposed by the odour, arising from putrefaction, to change their nature.⁶⁶¹

However, this is not as simple as it sounds. Van Helmont posits that matter always desires to remain in its current state, a natural instinct of preservation he calls *philautia*.⁶⁶² To defeat this desire, Van Helmont imagines the process of change as one of courtship and sexual attraction. Hence the odour of the Ferment essentially seduces matter by arousing its passion and desire.⁶⁶³

The odour ‘delights’ and acts by penetrating matter and impregnating it with the *semen*.⁶⁶⁴ The matter immediately ‘conceives’ for the ‘sake of Odour alone’.⁶⁶⁵ Once again we see the sexual metaphor operating, this time the ‘male’ part being represented by the odour.⁶⁶⁶ The odour, as the male representative of the Ferment, is so powerful that a medicine can cure by its smell alone: thus, colic and melancholy are healed not by ointment, but its odour.⁶⁶⁷ At the same time, some foul odours can cause vomiting, headaches, apoplexy and other illnesses.⁶⁶⁸

Hence the evanescent nature of the odour accompanies the Ferment as its active, ‘masculine’ instrument or its *symbolum* as Van Helmont describes it.⁶⁶⁹ They are so closely linked that on some occasions Van Helmont almost makes them equivalent to each other; for instance, in the ‘Treatise on the Disease of the Stone’, he affirms that ‘Odour is the Ferment’.⁶⁷⁰ Thus the process of generation begins when the Ferment, through the instrument of the odour, ‘impregnates’ matter, endowing it with the *semen*. The *semen*, in turn, conceives its own active agent, which may be inherited from the parent (in sexual generation) or directly bestowed by the Ferment (in spontaneous generation). This agent Van Helmont calls by the Paracelsian term *Archeus*.

⁶⁶⁰ Pagel, *Joan Baptista Van Helmont*, pp. 71-74. Pagel may have gone too far with his praise of odours, as it is not exactly clear that they are to be deemed different from the Ferments.

⁶⁶¹ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 113, ‘Imago fermenti’, p. 92: ‘Etenim prout ab odore, materia haurit transmutationis dispositionem’.

⁶⁶² Van Helmont, chap. 22, ‘Magnum Oportet’, p. 151, ‘Magnum oportet’, pp. 121-122 states that ‘the desire of remaining is more antient, strong, and natural than the desire of permutability’; ‘desiderium permanendi, antiquius, fortius, & naturalius fit, appetitu permutabilitatis’.

⁶⁶³ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 114, ‘Imago fermenti’, p. 93: ‘Afficiunt nimirum specifici odores, materiam, eamque in sui clientelam subigunt...Ex assueto demum, facilis reception, perfectior adaptatio: ac tandem amor, raptus in omnem sui libidinem.’

⁶⁶⁴ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 114, ‘Imago fermenti’, p. 93.

⁶⁶⁵ Van Helmont, chap. 22, ‘Magnum Oportet’, p. 149, ‘Magnum oportet’, p. 121.

⁶⁶⁶ As a side note, the ‘male’ aspect of the odour is still implied nowadays when we speak of odours as ‘impregnating’ the atmosphere.

⁶⁶⁷ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 114, ‘Imago fermenti’, p. 93.

⁶⁶⁸ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 114, ‘Imago fermenti’, p. 93.

⁶⁶⁹ Van Helmont, chap. 19, ‘The Image of the Ferment’, p. 114, ‘Imago fermenti’, p. 93.

⁶⁷⁰ Van Helmont, ‘Treatise on the Disease of the Stone’, chap. 1, p. 830, ‘Tractatus de Lithiasi’, chap. 1, ‘Petrificatio’, p. 651.

4.2.3.5. *The Archeus*

The concept of *Archeus* originated with Paracelsus, and hence is one of the direct intellectual links between Van Helmont and the Swiss physician. The *Archeus* is found in several treatises of Paracelsus, including prominently in ‘On the Minerals’ (*De mineralibus*), as well as ‘On the Matrix’, ‘The Lord’s Supper’, and *Labyrinthus medicorum errantium*. Paracelsus believed that ‘Nature [...] has need of a dispenser, who will arrange and set in order what ought to be joined together, so that what should be done may find accomplishment’.⁶⁷¹

In this sense, the Paracelsian *Archeus* can be interpreted as a principle of organisation, which intervenes and shapes passive matter. It is described as fundamentally active and dynamic in its design, changing everything from the prime matter to the ultimate matter. The action of the *Archeus* is one which perfects each body, effecting an evolution in Nature. It is hence unsurprising that the *Archeus* governs transformation, and hence has alchemical characteristics. The *Archeus* is an ‘inner Vulcan’⁶⁷² or a baker that cooks bread,⁶⁷³ which governs over smaller, organ-attached archei.⁶⁷⁴

The concept of the *Archeus* was adopted by many alchemical philosophers after Paracelsus. Martin Ruland the Younger (1569-1611) defined it as ‘1. separator and organiser in the elements, 2. the most exalted of spirits that can be separated from bodies, 3. macrocosmically, as the cosmogonic agent that elicits and separates all things from the Ilyaster’.⁶⁷⁵ Basil Valentine referred to the *Archeus* within the Element of Earth which made antimony perfect.⁶⁷⁶ Gerhard Dorn went further to affirm that the *Archeus* is an inner sun, as well as a salt and natural balsam.⁶⁷⁷ Not everyone employed the term ‘Archeus’, however; Severinus avoided the Paracelsian term and substituted it with *spiritus mechanicus*.⁶⁷⁸

Early Van Helmont employed the term ‘*Archeus*’ (spelled *Archaeus*) in his first written work *Eisagoge*.⁶⁷⁹ This work alternates between the term *Archeus* and the

⁶⁷¹ Paracelsus, ‘Book of Minerals’, in *Hermetic and Alchemical Writings of Paracelsus*, I, 247.

⁶⁷² Paracelsus, ‘Labyrinthus Medicorum’, in *Hermetic and Alchemical Writings of Paracelsus*, II, p. 167.

⁶⁷³ Paracelsus, ‘Book of Minerals’, in *Hermetic and Alchemical Writings of Paracelsus*, I, 247.

⁶⁷⁴ Pagel, *Paracelsus*, p. 108.

⁶⁷⁵ Quoted in Pagel, *Paracelsus*, p.99, n.1. Ruland defines Iliaster as ‘the first chaos of the matter of all things, constituted of Sulphur, Salt and Mercury’; Martin Ruland, *Lexicon alchemiae* (Frankfurt: Johann Andrea & Wolfgang Endter, 1612), pp. 263-264. See also Pagel, *Paracelsus*, pp. 88, 112-113, 208, 227.

⁶⁷⁶ Valentine, *A Triumphant Chariot of Antimony*, p. 65.

⁶⁷⁷ Gerhard Dorn, ‘Speculativa philosophia’, in *Theatrum Chemicum*, 6 vols (Strasbourg: Lazarus Zetzner, 1602), I, 307-308.

⁶⁷⁸ Shackleford, *A Philosophical Path*, pp. 179-180.

⁶⁷⁹ See for instance in his *Eisagoge*, in Broeckx, ‘Le premiere ouvrage’, pp. 122, 182, 184, 185.

Severinian term of *spiritus mechanicus*.⁶⁸⁰ In the later *Ortus*, however, he drops the Severinian expression in favour of the traditional Paracelsian term '*Archeus*'. Nevertheless, he does not completely disavow Severinus, as he often refers to the *Archeus* as *faber*, a Latin term that reflects Severinus's use of the Greek term *mechanikos*.⁶⁸¹

For Van Helmont, the *Archeus* is a spirit he often calls '*Vulcan*', just as it was conceived by Paracelsus, Severinus and other alchemical philosophers.⁶⁸² To clarify his meaning to his readers, Van Helmont also compares it to the traditional Aristotelian form, but it is important to understand that the *Archeus* is not form in the Helmontian sense of the term.⁶⁸³ In fact, the *Archeus* as described by Van Helmont is much more similar to Aristotle's *pneuma*, the spirit in the seed, analogous with the element of the stars.⁶⁸⁴ Like the *pneuma*, this *Archeus* is corporeal, albeit made of very fine matter Van Helmont calls an '*aura*' or '*aura vitalis*' (translated in English, rather improperly, as '*vital air*').⁶⁸⁵ Why he uses the term '*aura*' he never says, but the term is reminiscent of Philo's distinction between a gentle breath or breeze (*aura*) and a vigorous breath or wind (*spiritus*).⁶⁸⁶

The *Archeus* can be understood primarily in connection with Van Helmont's seminal theory of pre-formation. As mentioned above, Van Helmont affirmed that form as life can only be received from God once matter is pre-disposed to receive it. To

⁶⁸⁰ For Severinus's use of 'mechanical' see Shackleford, *A Philosophical Path*, particularly pp. 179-180.

⁶⁸¹ In Greek, '*mechanikos*' referred to a craftsman or technician that made use of a '*mechane*' (device, machine). *Mechane* was originally a device used in ancient Greek theatre to hoist actors playing gods unto the stage (hence the term '*deus ex machina*'); see Clifford Ashby, *Classical Greek Theatre: New Views on an Old Subject* (Des Moines: University of Iowa Press, 1999), pp. 81-87. The *Oriatrike* translation renders Van Helmont's term *faber* by workman, which resembles the translation of Severinus's '*spiritus mechanicus*' as '*werkeing spirits*'. See also Shackleford, *A Philosophical Path*, p. 178, n. 88.

⁶⁸² Van Helmont, chap. 5, 'The Chief or Master Workman', p. 35, '*Archeus faber*', p. 33; chap. 80, 'Of Material Things Injected or Cast into the Body', p. 601, '*De injectis materialibus*', p. 478; chap. 110, 'Short Life', p. 747, '*Vita brevis*', p. 587. In the *Opuscula medica inaudita*, 'Treatise on the Disease of the Stone', chap. 5, p. 859, '*Tractatus de Lithiasi*', chap. 5, '*Continuatur historia Duelech*', p. 682, he refers to the *Archeus* as a 'seminal spirit, adding 'this spirit, I name the *Archeus* or Master-workman; call thou it as thou wilt' ('*hunc autem spiritum, archeum nomino; voca tu, ut voles*'). For the use of *Vulcan* as equivalent, see chap. 5, 'The Chief or Master-Workman', p. 35, '*Archeus faber*', p. 33. Indeed, while he tries to be consistent in naming the *Archeus*, there are instances where he only refers to it as the Spirit, the Vital Air or the Vital Spirit.

⁶⁸³ Van Helmont, chap. 4, 'The Causes and Beginnings of Natural Things', p. 29, '*Causa et initia naturalium*', p. 28. As we have seen, in his philosophy light plays the role of form.

⁶⁸⁴ Aristotle, 'Generation of Animals', I, 736b30-37, p. 1143. On this topic see also Freudenthal, *Aristotle's Theory of Substance*, pp. 106-148.

⁶⁸⁵ Van Helmont, chap. 5, 'The Chief or Master Workman', p. 35, '*Archeus faber*', p. 33; chap. 7, 'The Ignorant Philosophy', p. 46, '*Physica Aristotelis et Galenis ignara*', p. 41; chap. 80, 'Of Material Things Injected or Cast into the Body', p. 601, '*De injectis materialibus*', p. 478.

⁶⁸⁶ On Philo's distinction, see Gilles Quispel, 'Hermes Trismegistus and the Origins of Gnosticism', in *From Poimandres to Jacob Boehme: Gnosis, Hermetism and the Christian Tradition*, ed. by Roelof van der Broeck and Cis van Heertum (Amsterdam: Bibliotheca Philosophica Hermetica, 2000), pp. 145-167 (p. 150).

achieve this pre-formation, matter (or water) is activated first by the principiating Ferment, then by the *semina* that it places in its bosom. Yet the *semen* itself needs an inner worker, an engine (or inner efficient cause) that would arrange matter in accordance with the information present within. This is where the *Archeus*, the *spiritus faber*, comes in.⁶⁸⁷

Van Helmont affirms that the *Archeus* is composed of the *aura* and a seminal image, which is its incorporeal nucleus.⁶⁸⁸ He does not clearly state where this corporal *aura* comes from, except that it is 'received' in the seminal mass.⁶⁸⁹ Before generation, the *Archeus* is not luminous; it is potential, or 'drowsie', essentially sleeping in the seed.⁶⁹⁰ However, in the act of generation, it becomes 'greedy of the splendour felt in the generator'.⁶⁹¹ Hence, the *Archeus* becomes filled with what Van Helmont calls 'selfish desire' (*per philautiae desiderium*),⁶⁹² and begins to construct the body. Van Helmont paints a colourful portrait of the spirit's activity within the *semen*:

For in things soulified, he walketh thorow all the Dens and retiring places of his Seed, and begins to transform the matter, according to the perfect act (*entelechia*) of his own Image. For here he placeth the heart, but there he appoints the brain, and he every where limiteth an unmoveable chief dweller, out of his whole Monarchy, according to the bounds of requirance, of the parts, and of appointments.⁶⁹³

The work and desire of the *Archeus* causes heat (hence the name Vulcan), which eventually ignites a fiery light.⁶⁹⁴ This light of the body is in accordance with its species; for fishes, for instance, it is a mild light (*nitor*), while for animals or plants it is

⁶⁸⁷ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 133, 'Ortus formarum', p. 108: 'necesse est, quidquid generator, Id habere intus dispositorem, qui in aura molli, aquosa, salsa, lutosa & ec sedeat'.

⁶⁸⁸ Van Helmont, chap. 5, 'The Chief or Master-Workman', p. 35, 'Archeus faber', p. 33: 'Constat Archeus vero, ex connexionione vitalis auae, velut materiae, cum imagine seminali quae est interior nucleus spiritualis, foecunditatem seminis continens; est autem semen visibile, hujus tantum siliqua'. The image he seems to convey is that of a spiritual centre around which gravitates the corporeal air. On the importance of the image in Van Helmont's writings, see Giglioni, *Immaginazione e malattia*, pp. 15-41.

⁶⁸⁹ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 142, 'Ortus formarum', p. 116: '...repetam seminum massam, receipere in se, corporalem auram, Vulcanum, quem Archeum nomino.'

⁶⁹⁰ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 142, 'Ortus formarum', p. 116: 'Archeus sopitus, & coagulo seminum obdormiens'.

⁶⁹¹ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 133, 'Ortus formarum', p. 108: 'Quae aura, avida splendoris, sensati in generante, semel ac umbratilater in se concepti, intendit via omni sibi possibili, corpus organizare, ad receptionem illius luminis, & actionum, a lumine illo dependentium'.

⁶⁹² Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 133, 'Ortus formarum', p. 108.

⁶⁹³ Van Helmont, chap. 5, 'The Chief or Master-Workman', p. 35, 'Archeus faber', p. 33: 'In animantatis enim, perambulat sui seminis latebras omnes, & recessus, incipitque materiam transformare juxta imagines suae entelechiam. Hic enim cor locat, ibi vero cerebrum designat, atque ubique immobilem habitorem praesidem, ex universali sui monarchia determinat, juxta exigentiae, partium & destinationum fines.'

⁶⁹⁴ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 144, 'Ortus formarum', p. 117.

a strong, warm light (*splendor*).⁶⁹⁵ Each species is further particularised by a specific quiddity (*quidditas specifica*) by the impregnation of each light with an odour.⁶⁹⁶

This light is not a formal light; its role is to pre-form the body in accordance with its proper species ('brings the matter to the suitable bounds of its particular kinde').⁶⁹⁷ It comes from the 'bosom of nature', has degrees and is extinguishable, while the light of form comes from God and has no degrees.⁶⁹⁸ Once the fiery light in the seed has ignited, the form-light descends upon the latter, penetrates it and thereby makes it vital.⁶⁹⁹ The form also bestows unity upon the composed body and a soul in sensitive beings.⁷⁰⁰

Once the body is fully formed and the form or life received directly from God, the *Archeus* becomes 'the first or chief Instrument (*organum*) of life and feeling'.⁷⁰¹ In other words, the *Archeus* as a governour of the body obeys the formal light of the Sensitive Soul. It is in fact the operative arm of the Sensitive Soul.⁷⁰² This theory is very important since it posits that neither generation nor administration of bodies can be directly effected by the soul. For Van Helmont, the soul is immaterial, so it cannot act on a material substance. The Soul implements his will through the medium of the 'administring Spirits', or *Archei*.⁷⁰³

Within the body, the *Archeus* directs it as 'Governour' or 'President' (*Rector*).⁷⁰⁴ Thus, the *Archeus* remains throughout one's life

the internal, vital Governour, and assisting Architect or Master-workman of Generation: and so he who for an End, directeth all things unto their scopes, causeth all things for himself, and for himself acteth all things.⁷⁰⁵

⁶⁹⁵ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 144, 'Ortus formarum', p. 117. This is also in relation with the theory of the two lights, that of the Sun and of the Moon, which Van Helmont presents in 'Ortus formarum'; unfortunately reasons of space and argument do not allow the exposition of this interesting theory here.

⁶⁹⁶ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 143, 'Ortus formarum', p. 116.

⁶⁹⁷ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 144, 'Ortus formarum', p. 117: 'quod materiam ducit ad fines specie suae congruos'.

⁶⁹⁸ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 144, 'Ortus formarum', p. 117. See above on formal lights.

⁶⁹⁹ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 142, 'Ortus formarum', p. 116.

⁷⁰⁰ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 145, 'Ortus formarum', p. 118.

⁷⁰¹ Van Helmont, chap. 80, 'Of Material Things Injected or Cast into the Body', p. 601, 'De injectis materialibus', p. 478.

⁷⁰² Van Helmont, chap. 71, 'The Birth or Original of a Disease Image', p. 553, 'Ortus imagines morbosae', p. 442.

⁷⁰³ Van Helmont, chap. 42, 'An Unknown Action of the Government', p. 335, 'Ignota actio regiminis', p. 272.

⁷⁰⁴ Van Helmont, chap. 5, 'The Chief, or Master-Workman', p. 35, 'Archeus faber', p. 33.

⁷⁰⁵ Van Helmont, chap. 62, 'Disease is an Unknown Guest', p. 491, 'Ignotus hospes morbus', pp. 393-394: 'semper sit moderator internus, vitalis, & assistens Architectus generationis: adeoque qui in finem dirigit cuncta ad scopos, sibi omnia patrat, & pro se egit universa.'

It is hence the very principle of life in the body, the 'Spirit of our life'. Once it departs, the organism fails.⁷⁰⁶ Its departure mirrors that of the vital light: 'Yea that *Vulcan* [...] departs, flies away, and vanisheth, without any corrupting of it self, no otherwise, than as light perisheth without the corrupting of it self.'⁷⁰⁷

As Van Helmont conceives it, the *Archeus* is endowed with anthropomorphic traits. Thus, the *Archeus* is at times 'Architect', 'Workman', or 'inward worker'. His 'human' character is so pronounced that the English translator saw fit to refer to the *Archeus* as a 'he' rather than 'it'. Moreover, the *Archeus* also has the traits of an alchemist, being the 'promoter of transmutations' possessed of 'transchangeative virtue'.⁷⁰⁸ It contains 'a transmutative, dispositive power of the matter into figures, Odours, Colours, and every property of accidents'.⁷⁰⁹ Its chief role as governour of the body is to subdue the *Archei* of inferior creatures by reversing their last life into the middle life. Van Helmont posits that every being has three lives: a first life, as seed (or *semen*); middle life, as embryo or *foetus*, and last life, as fully formed creature. The last life is not useful for the nourishment of another body, so the *Archeus*, by means of digestion, must reverse the process to the middle life.⁷¹⁰ Thus, in a human being, the *Archeus* transmutes the meat into its middle life, thus making it useful for the body.⁷¹¹

The analogy between the *Archeus* and human beings is strengthened in Van Helmont's description of the former's behaviour in disease. The *Archeus* can be 'seduced', suffers 'passions', 'antipathies', 'disturbances' and 'furies'.⁷¹² Hence, the *Archeus* can conceive a disease when it receives an unnatural idea.⁷¹³ The role of images in the activity of the *Archeus*, and particularly in the process of disease, has been emphasised and explained thoroughly by Giglioni in his *Immaginazione e malattia*.⁷¹⁴

Although there is only one chief *Archeus*, the Spirit that originates from the *semen*, other spirits, or *Archei insiti*, are then appointed to rule different organs. These

⁷⁰⁶ Van Helmont, chap. 18, 'The Fiction of Elementary Complexions and Mixtures', p. 108, 'Complexionum atque mitionum', p. 87; chap. 7, 'The Ignorant Philosophy of Aristotle and Galen', p. 46, 'Physica Aristotelis & Galeni ignara', p. 41.

⁷⁰⁷ Van Helmont, chap. 7, 'The Ignorant Philosophy of Aristotle and Galen', p. 46, 'Physica Aristotelis & Galeni ignara', p. 41.

⁷⁰⁸ Van Helmont, chap. 22, 'Magnum Oportet' p. 149, 'Magnum oportet', p. 121; chap. 31, 'Nourishments are guiltless or innocent of Tartar', p. 244, 'Alimenta Tartari insontia', p. 198.

⁷⁰⁹ Van Helmont, chap. 22, 'Magnum Oportet', p. 150; 'Magnum oportet', p. 122: 'Id enim minus repugnant perfectae transmutation, separationi, & election, Archeo debitis, cui nempe inest vis perfecte transmutativa materiae, dispositiva in figuras, odors, colores, omnemque accidentium proprietatem'.

⁷¹⁰ Van Helmont, chap. 22, 'Magnum Oportet', p. 156, 'Magnum oportet', p. 127.

⁷¹¹ Van Helmont, chap. 22, 'Magnum Oportet', p. 156, 'Magnum oportet', p. 127.

⁷¹² Van Helmont, chap. 67, 'I Proceed unto the Knowledge of Diseases', pp. 535-536, 'Progreditur ad morborum cognitionem', pp. 428-429. See also chap. 82, 'Of Things Conceived, or Conceptions', p. 606, 'De conceptis', p. 482.

⁷¹³ Van Helmont, chap. 62, 'A Disease is an Unknown Guest', p. 502, 'Ignotus hospes morbus', p. 403.

⁷¹⁴ Giglioni, *Immaginazione e malattia*, pp. 97-133.

Archei insiti correspond to the planets in accordance with traditional medical astrology.⁷¹⁵ Yet, as we gather from Van Helmont's discussion of Blas, the *Archei insiti* possess their own power which is analogous to that of the planets, but not directly subordinate to them: 'every bowel forms a proper Blas to it self within, according to the figure of its own Star'.⁷¹⁶

Even though the organs (or more strictly, the *Archei insiti* governing them) follow the movements of a certain star, they also implement their own will.⁷¹⁷ Van Helmont uses the Bible in framing this idea, this time St John and St Paul, who opposed the 'will of the flesh' to the 'will of God'.⁷¹⁸ Another important source was probably St Augustine, who followed the Apostles in affirming that 'the Word was not born of flesh nor of blood, nor of the will of man, nor of the will of the flesh, but of God'.⁷¹⁹ This Biblical and patristic background is used by Van Helmont to advance the idea that the 'will of the flesh' is an unconscious will which governs an animated body and which acts by means of the *blas*. It acts as a first mover that acts both in *semina* and in the body grown out of seed.⁷²⁰

Van Helmont is careful not to affirm that the 'will of the flesh' is borne out by a principle of evil, in the manner of the Gnostics, despite the negative connotations given by St Paul. True to his voluntarist theology, Van Helmont affirmed that all power of the will ultimately goes back to God Himself, who willed all things to be.⁷²¹ Hence, a 'will of the flesh' is absolutely natural, except in the case of man, who was created to fulfil the will of God. In human beings, the 'will of the flesh' is perceived as negative, being the origin of evil things such as idols and envy.⁷²²

However, the *Archei insiti* are constrained by their organs and their separate rulership can on some occasions impede the functioning of the body as a whole: the

⁷¹⁵ This medieval belief was mediated by Paracelsus; see Walter Pagel, 'Medieval and Renaissance Contribution to the Knowledge and Philosophy of the Brain', in *The History of the Brain and its Functions*, ed. by E.N.L. Poynter (Oxford: Oxford University Press, 1958), p. 108.

⁷¹⁶ Van Helmont, chap. 24, 'The Blas of Man', p. 177; 'Blas humanum', p. 145.

⁷¹⁷ Van Helmont, chap.29, 'Pylorus the Governour', p. 223; 'Pylorus rector', p. 181.

⁷¹⁸ John 1:13: 'who were born, not of blood, nor of the will of the flesh, nor of the will of man, but of God'; Ephesians 2:3 'Among whom also we all had our conversations in times past in the lusts of our flesh, fulfilling the desires of the flesh and of the mind; and were by nature the children of wrath, even as others'.

⁷¹⁹ St Augustine, *Confessions* in *The Works of Saint Augustine*, ed. by J.E. Rotelle (New York, NY: New City Press, 1997), I, 7:9.

⁷²⁰ Van Helmont, chap. 24, 'The Blas of Man', p. 177, 'Blas humanum', p. 145: 'Voluntas inprimis est primum ejusmodi movens, movetque seipsum quoque ens seminale, tam in seminibus, quam horum constitutis'.

⁷²¹ Van Helmont, chap. 24, 'The Blas of Man', p. 177, 'Blas humanum', p. 145.

⁷²² Van Helmont, chap.112, 'The Magnetick Cure of Wounds', p. 776, 'De magnetica vulnere curatione', pp. 607-608.

archei ‘being there alienated, either through a Vice of the Organs receiving, or through an error of Dispensation, do oft-times depart from their aim’.⁷²³

An important *Archeus insitus* is that of the heart, which Van Helmont equates with the Vital Spirit, originally a Galenic notion. The Vital Spirit is created from the arterial blood:

For the vitall Spirit is a light originally dwelling in the Ferment of the left bosom, which enlighthneth new Spirits bred by the arterial bloud[...] For thus the Spirits are made the partakers of life, and the executers thereof, even as also the *Vulcans* of continued heat.⁷²⁴

The Helmontian *Archeus* is profoundly indebted to Paracelsian and subsequent alchemical philosophy. However, it must be recognised at this point that it also evinces Galenic and Stoic influences. As already mentioned, the *Archeus* has much in common with the airy ‘Vital Spirit’, or *pneuma zootikon*, which was one of the most influential contributions of Galen to the medieval history of Western medicine. In his turn, Galen took these ideas from the Stoics, which first posited the existence of a *pneuma* which permeates the universe, and which was conceived as a combination of ‘air’ (*aura*) and fire. Yet it is possible that Van Helmont, who was an avid reader of the Stoics, may have also been inspired directly by the doctrine of the *hegemonikon*, the Stoic centre of perception and the ruler of the organs. The *hegemonikon* was the central processor of information within the body and was typically situated in the heart.⁷²⁵

4.2.3.6. Gas

The concept of ‘gas’ has been unanimously recognised as one of the chief contributions of Van Helmont to modern science. Yet, as Giglioni has pointed out, its modern sense is based mainly on Lavoisier’s interpretation of Van Helmont rather than on the Flemish philosopher himself.⁷²⁶ Indeed, a close reading of Van Helmont’s understanding of Gas shows that he saw it in much more complex ways than the modern term ‘gas’ conveys. Since the term can be misleading, I have used the capitalised form ‘Gas’ throughout the study to emphasise Van Helmont’s usage.

⁷²³ Van Helmont, chap. 110, ‘Short Life’, p. 750, ‘Vita brevis’, p. 589.

⁷²⁴ Van Helmont, chap. 24, ‘The Blas of Man’, p. 179, ‘Blas humanum’, p. 147

⁷²⁵ Samuel Sambursky, *Physics of the Stoics* (Westport, CN: Greenwood Press, 1959), particularly pp. 22-24.

⁷²⁶ Giglioni, ‘Per una storia del termine Gas’.

Van Helmont admitted to have invented the term ‘Gas’, probably drawing it from the word for ‘chaos’. Indeed, as he himself points out, ‘for want of a name, I have called that vapour, Gas, being not far severed from the Chaos of the Antients.’⁷²⁷ These ‘Ancients’ remain unnamed; however, it is more likely that, rather than some nebulous ‘ancients’, the term is actually drawn on Paracelsus’s chaos, as Pagel and Giglioni have pointed out.⁷²⁸ Another influential Paracelsian source, not mentioned before, may have also been Heinrich Khunrath. In his *Vom Hylealischen Chaos*, Khunrath talked at length about the primordial Chaos of Genesis, made up, he thought, of earth and water, and which he associated with the first matter of the *lapis*.⁷²⁹

Due to its impact and continual usage in chemistry, Van Helmont’s Gas has been one of the most analysed ideas in his work. Unsurprisingly, J. R. Partington gave special attention to Van Helmont’s term.⁷³⁰ Following his lead, Pagel dedicated several pages to Van Helmont’s Gas in *Joan Baptista Van Helmont*.⁷³¹ Pagel believed that ‘Gas is central to his naturalist philosophy and cosmosophy’, defining it as ‘the material or watery vector of object-specificity, the spiritual carrier of the specific life-plan of an object’.⁷³² Such a definition is, however, overambitious given that Pagel bases his understanding of Gas almost exclusively on the treatise ‘The Fiction of Elementary Complexions and Mixtures’ (‘De fictionum complexionum atque mitionum’), paying no attention to the previous treatise ‘The Gas of the Water’ (‘Gas aquae’) and only briefly to the connected ‘Essay of a Meteour’ (‘Progymnasma meteori’, where the term Gas appears for the first time).

This oversight has been corrected by the recent contributions of two scholars, Paulo Porto and Guido Giglioni, who have written detailed accounts of the use of the term in Van Helmont.⁷³³ Porto observed that the concept of Gas is first introduced in Van Helmont’s thought as part of his meteorological speculations and is related to an understanding of the cosmos and of air.⁷³⁴ Both Porto and Giglioni emphasised the role

⁷²⁷ Van Helmont, chap. 11, ‘The Essay of a Meteor’, p. 69, ‘Progymnasma meteori’, p. 59: ‘Ideo paradoxi licentia, in nomiis egestate, halitum illum Gas vocavi, non longe a Chao veterum secretum.’

⁷²⁸ Pagel, *Joan Baptista Van Helmont*, pp. 64-65; however, Pagel believes that gas is closer to the elemental spirits of Paracelsus, see pp. 66-70; see also Pagel, *Paracelsus*, p. 95 and Pagel, ‘J. B. Van Helmont’s Reformation of the Galenic Doctrine of Digestion—and Paracelsus’, *Bulletin of the History of Medicine*, 29 (1955), 563-538. On Paracelsus’s chaos see also Giglioni, ‘Per una storia del termine Gas’, pp. 434-437.

⁷²⁹ Khunrath, *Vom Hylealischen...Chaos*, p. 54.

⁷³⁰ Partington, *A History of Chemistry*, II, 227-232.

⁷³¹ Pagel, *Joan Baptista Van Helmont*, pp. 60-70.

⁷³² Pagel, *Joan Baptista Van Helmont*, pp. 61, 63. This definition shows Pagel’s tendency to philosophise on the margin of Van Helmont’s work, as the latter was far from such a definition.

⁷³³ Paulo Porto, *Van Helmont e o conceito de gas: química e medicina no século XVII* (Sao Paulo: EDUC-EDUSP, 1995), pp. 78-109, Giglioni, ‘Per una storia del termine Gas’, pp. 437-445.

⁷³⁴ Porto, *Van Helmont e o conceito de gas*, p. 89.

of Gas in Van Helmont's theory of disease.⁷³⁵ Their work has done much to supersede Pagel's analysis of Gas; however, neither of them has actually disputed Pagel's definition of Gas, which has remained the most influential one.⁷³⁶

In fact, Van Helmont never provides a clear definition for the term Gas, and certainly not in the grand philosophical terms Pagel used. The closest he comes to a definition is in the treatise 'Essay of a Meteour' ('Progymnasma meteorii'), where he differentiates water Gas from water vapour and affirms:

Gas is a far more subtile or fine thing than a vapour, mist, or distilled Oylinesses, although as yet, it be many times thicker than Air. But Gas itself, materially taken, is water as yet masked with the Ferment of composed Bodies.⁷³⁷

This passage tells us that Gas is a composite made out of water being masked (*larvatam*) with a 'principiating' Ferment.⁷³⁸ It is a body, extremely subtle, hence invisible, and endowed with the property of weight.⁷³⁹ This definition is needless to say insufficient to understand the quiddity of Gas. To better comprehend the concept, one must look deeper into Van Helmont's various treatises.

4.2.2.5.1. *Gas in Van Helmont's Meteorological Treatises*

Since Gas first appears in Van Helmont's meteorological treatises (chap. 12 'Essay of a Meteour', 'Progymnasma meteorii' and chap. 13 'The Gas of the Water', 'Gas aquae'), it is possible that the notion came to him by observing the behaviour of water at different temperatures. As water was the fundamental matter out of which all bodies were formed, the Flemish philosopher was keen to perform a complete 'anatomy' of water. Indeed, Van Helmont essentially posits four states of water: ice, water, vapour and Gas.

⁷³⁵ Giglioni, 'Per una storia del termine Gas', pp. 442-445; Porto, *Van Helmont e o conceito de gas*, pp. 101-109.

⁷³⁶ Giglioni cites Pagel's grand definition in footnote 23 without commenting on it; he also adds what may be construed as an alternative definition when he says that 'gas is the fragile material link, which the seminal properties are impressed on and conserved for a longer or shorter duration of time': 'il gas e il fragile vincolo materiale su cui si imprimono e si conservano, in un tempo piu o meno breve, le proprieta seminali', 'Per una storia del termine Gas', p. 439.

⁷³⁷ Van Helmont, chap. 12, 'The Essay of a Meteor', p. 69, 'Progymnasma meteorii', p. 59: 'Sat mihi interim sciri, quod Gas, vapore, fuligine, & stillatis oleositatibus, longe sit subtilius, quamquam multoties aere adhuc densius. Materialiter vero ipsum Gas, aquam esse, fermento concretorum larvatam adhuc.'

⁷³⁸ Giglioni has rightfully observed the association between the term 'larva' (mask) and play, or perhaps more specifically theatre plays; see 'Per una storia del termine Gas', n. 30, p. 439.

⁷³⁹ We have seen that air is weightless by comparison.

It was commonplace knowledge that heated water turns to vapour; however, where Scholastics believed that vapour was air, Van Helmont argued that in fact it is still water, albeit in a different form. This was easily proven alchemically by dissolving vapours back into water by the use of a still head.

Yet Van Helmont went further. He believed that some of the vapour of water, when encountering the cold atmospheric air did not turn into water, but was further divided until it achieved minute proportions, and this state he called Gas. In his vision, Gas forms a relatively stable stratum of water above the clouds, which Van Helmont refers by the term *Peroledes*.⁷⁴⁰ The Gas constitutes what we ordinarily call 'sky'; the water present in Gas bestows upon it the colour blue.⁷⁴¹

Van Helmont then uses his theory of the Gas above clouds to explain meteorological changes. The Gas stratum is completely passive, but is activated by the 'Blas of stars'.⁷⁴² This force effectively pushes the Gas back toward earth, where in contact with the warmer air it turns into clouds and then into rain.⁷⁴³

Hence, in the meteorological treatises, Gas emerges as simply extenuated water, albeit one that can only be found in the inaccessible middle region of the air. Hence it is a concept that cannot be tested in the laboratory; nevertheless, it plays an important role in accounting for atmospheric changes. What is interesting about Van Helmont's Gas description is his use of the Paracelsian *tria prima* to describe the difference between vapour and Gas, as will be further explored in the next subchapter.

4.2.2.5.2. *Gas Sylvestre*

In the treatises 'The Fiction of Complexions and Mixtures' ('De fictionum complexionum atque mitionum') and 'Of Flatuses' ('De flatibus'), Van Helmont enlarges the meaning of Gas beyond exhausted particles of water. He now affirms that Gas can be elicited from many bodies which 'do not immediately depart into water', such as those that are not fixed.⁷⁴⁴ Under the vexation of fire, these 'belch forth a wild spirit' (*spiritus sylvestris*), also called *Gas sylvestre*.⁷⁴⁵ This Gas does not pre-exist as

⁷⁴⁰ Van Helmont, chap. 13, 'The Gas of the Water', p. 74, 'Gas aquae', p. 63.

⁷⁴¹ Although Van Helmont does not exactly explain the reason for the colour, we can surmise it is due to the fact that water itself is blue.

⁷⁴² On blas, see below, 4.2.3.6.

⁷⁴³ Van Helmont, chap 13, 'The Gas of the Water', p. 74, 'Gas aquae', p. 63.

⁷⁴⁴ Van Helmont, chap. 18, 'The Fictions of Complexions and Mixtures', p. 106, 'Fictionum complexionum atque Mitionum', p. 86: '...universaliter corpora, quaecunque immediate non abeunt in aquam, nec tamen sunt fixa, necessario eructant spiritum silvestrum... hunc spiritum, incognitum hactenus, novo nomine Gas voco'.

⁷⁴⁵ Van Helmont, chap. 18, 'The Fiction of Complexions and Mixtures', p. 106, 'Complexionum atque mitionum', p. 86; chap. 85, 'Of Things Inspired or Breathed into the Body', p. 617, 'De inspiratis', p. 490.

such within the body, but is ‘coagulated’ in a bodily form by ferment.⁷⁴⁶ It is essentially a type of exhalation which creates a new body, albeit an invisible one. This Gas is still water in its essence, but it also contains the ‘principiating’ Ferment which has created its former body.⁷⁴⁷

Moreover, Gas *sylvestre* is different from the Gas of water since it is an object that can be observed in the laboratory. Indeed, the concept of Gas *sylvestre* clearly reflected the knowledge acquired through the art of fire.⁷⁴⁸ For instance, Van Helmont relates how he obtained a wild Gas by combining sal ammoniac and *aqua fortis*, or heating lead with mercury and sulphur.⁷⁴⁹ He goes on to describe other experiments he carried out, such as roasting an apple or coal in a hermetically shut vessel and causing it to burst apart, or distilling Tartar of Wine.⁷⁵⁰ Indeed, the alchemist ‘daily draws a wild and pernicious Gas out of Coals, Stygian Waters and fusions of Minerals’.⁷⁵¹ It is clearly this type of Gas, the Gas *sylvestre*, that can be obtained in the laboratory, that we most associate with our modern term gas.

In ‘Of Flatuses’, Van Helmont connects Gas *sylvestre* with bodily flatus: ‘every flatus in us is a wild Gas, stirred up among the digestions, from meats, drinks and excrements’.⁷⁵² He is keen to deny that flatus might be air or wind.⁷⁵³ This association raises interesting questions as to Van Helmont’s inspiration for the Gas *sylvestre* from Hippocrates’s treatise ‘De flatibus’ (*Peri physon*).⁷⁵⁴ As already noted, the middle Van Helmont was fascinated with Hippocrates’s theory of the flatuses as ‘winds in the body’ and had already written a commentary on *Peri physon*.⁷⁵⁵ In the *Ortus*, however, Van

⁷⁴⁶ Van Helmont, chap. 18, ‘The Fiction of Complexions and Mixtures’, p. 106, ‘Complexionum atque misionum’, p. 86.

⁷⁴⁷ Van Helmont, chap. 85, ‘Of Things Inspired or Breathed into the Body’, p. 617, ‘De inspiratis’, p. 490.

⁷⁴⁸ Van Helmont, chap. 56, ‘Of Flatus's or Windie Blasts in the Body’, p. 417, ‘De Flatibus’, p. 336: ‘Quocirca inexcusabilis mansit tenebrarum naturalium obscuritas, penes ignaros Pyrotechniae’.

⁷⁴⁹ Van Helmont, chap. 18, ‘The Fiction of Complexions and Mixtures’, p. 107, ‘Complexionum atque misionum’, p. 86; see also the same experiment described in chap. 56, ‘Of Flatus's or Windie Blasts in the Body’, p. 427, ‘De flatibus’, p. 343. Van Helmont, association of Gas with flatus points out that the concept is related not only with fermentation but also with *blas*. Here we have to harken back to Van Helmont’s interest with the Hippocratic *enhormon*.

⁷⁵⁰ Van Helmont, chap. 18, ‘The Fictions of Elementary Complexions and Mixtures’, pp. 60-61, ‘Complexionum atque misionum’, p. 51; chap. 56, ‘Of Flatus's or Windie Blasts in the Body’, p. 427, ‘De flatibus’, p. 343.

⁷⁵¹ Van Helmont, chap. 85, ‘Of Things Inspired or Breathed into the Body’, p. 617, ‘De inspiratis’, p. 490: ‘Spagyris sic quotidie, sylvestre atque perniciosum Gas, e carbonibus, aquis stygis, & fusionibus mineralium haurit’.

⁷⁵² Van Helmont, chap. 56, ‘Of Flatuses or Windy Blasts in the Body’, p. 421, ‘De flatibus’, p. 339: ‘Ergo restat, quod omnis in nobis flatus sit Gas sylvestre, inter digestiones excitatum, e cibis, potibus, & excrementis’.

⁷⁵³ Van Helmont, chap. 56, ‘Of Flatuses or Windy Blasts in the Body’, pp. 421, 424, ‘De flatibus’, pp. 339, 341.

⁷⁵⁴ Van Helmont points this out himself by referring to Hippocrates’s work from the very first lines of the treatise.

⁷⁵⁵ See above, chapter 2.2.2.

Helmont denies the theory that flatuses are winds; instead, he now argues that they are all *Gas sylvestre*. Even so, he fails to completely eliminate the macrocosmic-microcosmic analogy he so vehemently rejects, since he actually affirms the identity of bodily flatus with the outer gases obtained in alchemical experiments.⁷⁵⁶ The bodily flatus, similarly to the *Gas sylvestre*, is comprised of matter, the seed of acidity (*semen aciditatis*) and stirred up by the Ferment of the place.⁷⁵⁷

4.2.2.5.3. Other Gases

In the treatise 'Of Flatuses', Van Helmont also attempts to create a taxonomy of Gases. This is very different, however, than what we might expect to see. Thus, he describes:

a windy Gas (which is meerly Air, that is, a wind moved up and down by the Blas of the Stars) a fat Gas, a dry Gas, which is called a sublimed one, a fuliginous or smoaky, or endemical Gas, and a wild Gas, or an unrestrainable one, which cannot be compelled into a visible Body.⁷⁵⁸

This list amply shows that Van Helmont did not think of Gas as merely the *Gas sylvestre*. The 'windy Gas' he refers to is slightly dumbfounding, because he had insisted everywhere (including in the same treatise) that Gas is not air or wind; we can construe that what he is referring to here is in fact the Gas of water, which is pushed down by the *blas* of the Stars and causes winds. The 'fat' and 'dry' Gases suspiciously resemble Aristotle's dry and moist exhalations,⁷⁵⁹ which had also been the origins of the Sulphur-Mercury theory in alchemy.⁷⁶⁰

Furthermore, the 'fuliginous' or 'smoky' Gas is elicited by fire from flammable substances like oil; it is different from wild Gas as it does not 'burst forth' and is not unrestrainable.⁷⁶¹ The difference between these two seems restricted to behaviour only. It appears that it is chiefly the 'wild' and the 'smoky' Gas that Van Helmont makes

⁷⁵⁶ Van Helmont, chap. 56, 'Of Flatus's or Windie Blasts in the Body', pp. 418-419, 'De Flatibus', p. 336: rather shrewdly, Van Helmont picks on Paracelsus for propounding this analogy, when in fact he targets Hippocrates's version in *Peri physon*.

⁷⁵⁷ Van Helmont, chap. 56, 'Of Flatus's or Windie Blasts in the Body', p. 424, 'De Flatibus', p. 341.

⁷⁵⁸ Van Helmont, chap. 56, 'Of Flatus's or Windie Blasts in the Body', p. 417, 'De flatibus', p. 336: 'Gas ventosum (quod mere aer est, id est, ventus, per siderum Blas commotus), Gas pingue, Gas siccum, quod sublimatum dicitur, Gas fuliginosum, sive endimicum, & Gas sylvestre, sive incoercibile, quod in corpus cogi non potest visibile'.

⁷⁵⁹ Aristotle, 'Meteorology' in *The Complete Works of Aristotle*, 2 vols (Princeton: Princeton University Press, 1984), I, IV.

⁷⁶⁰ See John A. Norris, 'Mineral Exhalation Theory of Metallogenesis in Pre-Modern Mineral Science', *Ambix* 53:1 (2006), 43-65 (pp. 46-49).

⁷⁶¹ On the smoky Gas, see chap 21, 'The Birth or Originall of Forms', p. 136, 'Ortus formarum', p. 111.

responsible for diseases. Thus, observing by alchemical practices that ‘Smoakinesses do [...] defile the Walls of their Vessels’, he also surmises that ‘if they shall besiege the tender branches of the rough Artery, they stop them up’.⁷⁶² He also posits that the air can become infected by ‘principiating’ Ferments, causing a wild or smoky Gas that causes endemics like the plague.⁷⁶³

In addition to these gases, Van Helmont notes that both the *Archeus* and the *spiritus vitalis* within the body is Gas.⁷⁶⁴ It is not exactly clear whether this archeal Gas is one of the five types enunciated above; what is certain is that it is not a windy one.⁷⁶⁵ By positing that the *spiritus vitalis* is Gas, he explains why gases in cellars or mines kill so quickly; he affirms that the hostile Gas penetrates and affects the *spiritus vitalis* by mixing with it.⁷⁶⁶

We may conclude this brief analysis of the employment of the term Gas in Van Helmont’s writings by observing that Gas covers a much larger range of phenomena than our chemical term ‘gas’ does. Indeed, the concept covers many types of invisible ‘spirits’ that have the same basic inner structure: that of very fine water and Ferment. They are not visible, but are corporeal nonetheless; hence they are a representative of Van Helmont’s tendency of positing the existence of entities that cannot be directly perceived by the senses, but only by effects. This is linked, of course, with his critique of Scholastic natural philosophy which relied almost exclusively on sense perception.⁷⁶⁷

4.2.3.7. Magnale

Van Helmont’s strong claim on behalf of the existence of a vacuum in the form of air pores is softened by his belief in the universal presence of a medium he calls *magnale*. All vacuum contains this fine matter.⁷⁶⁸ Hence Van Helmont sometimes uses *magnale* as a synonym for vacuum, which makes it difficult to ascertain whether he

⁷⁶² Van Helmont, chap. 85, ‘Of Things Inspired or Breathed into the Body’, p. 617, ‘De inspiratis’, p. 490.

⁷⁶³ Van Helmont, chap. 85, ‘Of Things Inspired or Breathed into the Body’, p. 617, ‘De inspiratis’, p. 490.

⁷⁶⁴ Van Helmont, chap. 18, ‘The Fiction of Complexions and Mixtures’, p. 110, ‘Complexionum atque misionum’, pp. 89-90.

⁷⁶⁵ Van Helmont, chap. 56, ‘Of Flatus’s or Windie Blasts in the Body’, p. 425, ‘De flatibus’, p. 342.

⁷⁶⁶ Van Helmont, chap. 18, ‘The Fiction of Elementary Complexions and Mixtures’, p. 110, ‘Complexionum atque misionum’, p. 90.

⁷⁶⁷ See above the discussion of occult qualities, chapter 2.1.

⁷⁶⁸ Van Helmont, chap. 15, ‘A Vacuum of Nature’, p. 86, ‘Vacuum naturae’, p. 71: ‘Nam quod in se est aeris vacuum, pene nihil est, in respect corporum’.

actually supported an idea of empty space in actuality or only in potentiality.⁷⁶⁹ It is likely that he supported the views advocated by such philosophers as Bernardino Telesio (1509-1588), Francesco Patrizi and Tommaso Campanella, according to which, although empty space was a reality, in practice this was completely filled by fine matter.⁷⁷⁰

Van Helmont further explains that *magnale* is a real being (*ens*) which is an intermediary between matter and spirit.⁷⁷¹ It is hence neither a substance nor an accident.⁷⁷² Its role is to be the companion or assistant of the air, and facilitate the instantaneous propagation of the *blas* of stars and of light in all directions.⁷⁷³ In modern words, Van Helmont seems to posit that the speed of light and of *blas* is instantaneous (or quasi instantaneous) through a vacuum.⁷⁷⁴

Since *magnale* is close to a vacuum, it acts opposite to the air: when the air is contracted, the *magnale* is extended, and viceversa. This opposition is also related to temperature: when the air is cold, the *magnale* is warm, or even hot. In other words, when the atmosphere is cold, the *magnale* contracts, and the influence of stars reduces as well.⁷⁷⁵ This shows that Van Helmont actually believed that the speed of propagation of light and *blas* decreases when it encounters air.

Interestingly, the *magnale* makes a rather minor appearance in *Ortus medicinae*, where it is mostly confined to chapter 15, 'A Vacuum of Nature'. Most speculations on this medium occur, surprisingly enough, in the middle Van Helmont's correspondence with Mersenne between 1630 and 1631. His explanations there come in the wake of his brief but tantalising mention of *magnale* in *De magnetica*, where he affirms, rather forcefully, that this is a universal spirit that promotes action at a distance, including magnetism and attraction.⁷⁷⁶ In the letters, he goes further to explain the concept: he

⁷⁶⁹ Van Helmont, chap. 15, 'A Vacuum of Nature', p. 87, 'Vacuum naturae', p. 71: 'vacuum aeris, sive Magnale'.

⁷⁷⁰ On their views, see Grant, *Much Ado*, pp. 182-206. Grant points out that this idea is ultimately traced from John Philoponus (490-570); Grant, *Much Ado*, p. 192.

⁷⁷¹ Van Helmont, chap. 15 'A Vacuum of Nature', p. 84, 'Vacuum naturae', p. 70: 'Verumtamen aeris illae porositates, utcunque sint actualiter, omni materia expertes: habent nihilominus in se ens creaturam, id est, aliquid reale, non figmentum, nec solum locum nudum; sed quod est inter materiam, & spiritum, incorporeum, plane medium, atque neutrum, de numero inquam eorum, quae limite de formis, negavi substantiam vel Accidens esse.'

⁷⁷² This idea of beings that are not substances or accidents brings Van Helmont even closer to the views of Telesio and Campanella, who advocated similar views. See Grant, *Much Ado*, pp. 182-206.

⁷⁷³ Van Helmont, chap. 15, 'A Vacuum of Nature', p. 84, 'Vacuum naturae', p. 70.

⁷⁷⁴ Van Helmont does not take a view on whether or not speed would be instantaneous through a void. The positive was maintained by Aristotle, but Telesio did not agree; Grant, *Much Ado*, p. 193.

⁷⁷⁵ Van Helmont, chap. 15, 'A Vacuum of Nature', p. 86, 'Vacuum naturae', p. 71.

⁷⁷⁶ Van Helmont, chap. 112, 'The Magnetick Cure of Wounds', p. 788, 'De magnetica vulnere curatione', p. 616: 'quinetiam in toto universe latet spiritus quidam, quem magnale magnum dicimus, qui

calls the *magnale* by the Aristotelian term ‘ether’, and maintains that it is like the ‘soul of the universe’ (*anima universi*).⁷⁷⁷

The *magnale*, middle Van Helmont points out, plays an important role in Nature as it facilitates the transmission of the magnetic force through the air.⁷⁷⁸ Yet the *magnale* does not only reside in air, but can be found in water and oil as well.⁷⁷⁹ In other words, *magnale* is a being that comes into the composition of all bodies. Indeed, Van Helmont further affirms that under extreme cold, water is partially transformed in vapours, part in ice and part in its ‘first *magnale*’.⁷⁸⁰ Yet, since it ‘penetrates’ all bodies, it cannot be corporeal in the full sense of the word.⁷⁸¹ Indeed, Van Helmont explains that the *magnale* lies at the boundary between matter and spirit.⁷⁸²

Besides being a medium of communication between all bodies, Van Helmont also suggests that the *magnale* plays an important role in maintaining life. Thus, arguing that the presence of the medium in water allows the fishes to breathe, Van Helmont concludes that ‘all things live in *magnale*’ and that it is the medium and sustainer of life.⁷⁸³ Hence a deficit of *magnale* results in diseases and death.⁷⁸⁴

Middle Van Helmont further points out that the doctrine of the *magnale* belongs to ‘our school’.⁷⁸⁵ By this he probably he means the alchemical, or Hermetic school he mentions elsewhere.⁷⁸⁶ Indeed, Pagel observed a resemblance between Van Helmont’s *magnale* and Paracelsus’s *magnale*, which is also an etheric receptacle for astral influences, although his association with the *Philosophia ad Atheniensis*’s *Mysterium magnum* is less convincing.⁷⁸⁷ Pagel is probably correct that Van Helmont is also influenced by Marsilio Ficino, although not by the ‘astral body’ but the concept of *spiritus mundi*, which was reaffirmed by the influential Cornelius Agrippa.⁷⁸⁸ Ficino and Agrippa maintained that *spiritus mundi* was a quintessence that is neither corporeal

sympathiae & dispathiae leno confabulator & actionum promotor existit, & ratione cujus, magnetismus, tanquam per vehiculum, ad distans objectum extenditur.’

⁷⁷⁷ ‘30 Janvier 1631’, p. 59.

⁷⁷⁸ ‘21 Février 1631’, p. 111.

⁷⁷⁹ ‘21 Février 1631’, p. 111, ‘30 Janvier 1631’, p. 60.

⁷⁸⁰ ‘30 Janvier 1631’, p. 60.

⁷⁸¹ ‘21 Février 1631’, p. 112.

⁷⁸² ‘21 Février 1631’, p. 111: ‘Le magnale, selon nostre escole, n’est pas corps comme les autres, ny esprit incorporeal comme les autres, mais est medium aliquod totius universi inter corpus et non-corpus’.

⁷⁸³ ‘21 Février 1631’, p. 111, ‘Ergo omne vivens in magnali vivit, seu, ut alii vocant, in ethere est omnis vita’. Here Van Helmont is undoubtedly trying to answer the question of how fishes breathe in water, which is a plenum. The *magnale* appears almost as a precursor for oxygen.

⁷⁸⁴ ‘21 Février 1631’, p. 121.

⁷⁸⁵ ‘21 Février 1631’, p. 111.

⁷⁸⁶ See above, chap. 3.1.

⁷⁸⁷ Pagel, *Joan Baptista Van Helmont*, pp. 94-95.

⁷⁸⁸ Heinrich Cornelius Agrippa, *De occulta philosophia* (Lyon: Beringos Fratres, 1550), liber I, chap 14, p. 30: ‘quasi non corpus, sed quasi iam anima, sive quasi non anima, & quasi iam corpus, quo videlicet anima corpori connectatur’.

nor incorporeal, but an intermediary between the two. This argument made its way into Paracelsian literature. Heinrich Khunrath equated Agrippa's *spiritus mundi* with the aether and *Schamaim* (*schamayim*), the primordial heaven of Genesis which we have seen piquing Van Helmont's curiosity as well.⁷⁸⁹

The comparison of the letters to the *Ortus medicinae* reveals some interesting aspects of the progress of Van Helmont's thought. The concept of *magnale* is present in both, and in both cases the *magnale* is a being between body and non-body that fills the interstices of the air.⁷⁹⁰ In both, the *magnale* facilitates the influences of the stars (*sidereum influxus*).⁷⁹¹ Yet in the letters the *magnale* is everywhere, not only in the air, as a universal spirit that has important functions in bestowing and maintaining life. This lofty view can no longer be found in *Ortus medicinae*. It seems that, for reasons that are not overt, Van Helmont's enthusiasm for the concept of *magnale* faded. Although he still considered it important, it became minimised in favour of other ideas. One may speculate as to the reasons for this: perhaps Van Helmont feared the association of the *magnale* with the 'soul of the world' or 'spirit of the world' might make his idea look unorthodox, or perhaps he found the concept too vague or unclear. It is certain that the *Ortus* preferred more individualised concepts like 'Archeus' and 'Gas' to the more general *magnale*.

4.2.3.8. Blas

We have already seen that, as part of his commitment to the idea of *prisca sapientia*, Van Helmont revered Hippocrates as one of the greatest ancient philosophers.⁷⁹² He was inspired by the ancient physician's concept of the *impetus faciens* (*to enhormon*) to devise a comprehensive vision of the force of motion within the Universe. In fact, Van Helmont made no effort to conceal the fact that the source of his concept was Hippocrates's *enhormon*, since he referred to *blas* as *vis enormontica*.⁷⁹³

Henceforth, Van Helmont devised the term *blas*, which probably originates from the Dutch word *blazen*, 'to blow' (thus advancing his thought on motion as a type of

⁷⁸⁹ Khunrath, *Vom Hylealischen...Chaos*, p. 39.

⁷⁹⁰ '19 Décembre 1630', p. 588; '15 Janvier 1631', p. 34; '21 Février 1631', p. 111.

⁷⁹¹ '15 Janvier 1631', p. 34.

⁷⁹² See above, chapter 3.

⁷⁹³ Van Helmont, chap. 14, 'The Blas of Meteors', p. 79, 'Blas meteoron', p. 65.

wind).⁷⁹⁴ He justified the novelty of the name by arguing that this power (*vis*) lacked a name, even though, of course, he could have used the Hippocratic term for it.⁷⁹⁵

As in the case of Gas, Van Helmont did not give a proper definition to *blas*, his reference to Hippocrates being oblique to anyone who was not highly familiar with the physician of Kos. Inevitably, a level of confusion about *blas* was perpetrated to this day. Even the most influential of Helmontian commentators, Walter Pagel, was not very enlightening when he rather obscurely described it as ‘one general and “astral-cosmic” force [...] responsible for all motion and change in the universe’.⁷⁹⁶ Pagel confused the matter even more when he distinguished *blas motivum* as ‘directed and determined motion’, from *blas alterativum* which he simply termed ‘change’, both of which he described as different from *blas humanum*.⁷⁹⁷

However, a deeper analysis of Van Helmont’s writings reveals that, in fact, he had a definite and rather well-contoured idea of *blas* in his mind. In a very general sense, Van Helmont viewed *blas* as an active force.⁷⁹⁸ In the treatise ‘Disease is an Unknown Guest’, Van Helmont explained:

every natural Agent, is born to produce its like, except that which acteth by a Blas... So the Heaven generates Meteors, not Heavens. And a man, by a voluntary Blas; and likewise the Archeus, by an ideal and seminal Blas, stirs up divers alterations.⁷⁹⁹

Thus, it appears in this light that *blas* is a force causing a change. Alterations can be simply one of position (our ordinary understanding of motion), but can also occur within a body as well. Hence we can see that *blas* is actually a force that transcends the realm of physics to that of biology and even perhaps psychology.⁸⁰⁰

We should not mistake *blas* for ordinary motion; first of all, *blas* refers to the power of the agent that causes change rather than to movement itself. In other words,

⁷⁹⁴ Albert Roodnat, ‘J.B. Van Helmont’, in *Dictionary of Gnosis and Western Esotericism*, pp. 469-474 (p. 471).

⁷⁹⁵ Van Helmont, chap. 62, ‘A Disease is an Unknown Guest’, p. 497, ‘Ignotus hospes morbus’, p. 398.

⁷⁹⁶ Pagel, *Joan Baptista Van Helmont*, p. 87. I do not see how describing a force as ‘astral-cosmic’ makes Van Helmont’s ideas clear, especially since the Flemish philosopher never used those words.

⁷⁹⁷ Pagel, *Joan Baptista Van Helmont*, p. 87. In fact, Van Helmont does not actually posit that *blas humanum* is different than *blas alterativum*. Moreover, *blas alterativum* includes ‘directed and determined motion’, while *blas motivum* implies change.

⁷⁹⁸ Van Helmont, chap. 42, ‘An Unknown Action of Government’, p. 325, ‘Ignota actio regiminis’, p. 262.

⁷⁹⁹ Van Helmont, chap. 62, ‘A Disease is an Unknown Guest’, p. 497, ‘Ignotus hospes morbus’, p. 398: ‘Scio praeterea, omne agens natural, natum esse producere sui simile, except eo, quod agit per Blas... Sic Coelum meteora, non coelos generat. Et homo, per Blas voluntarium; itemque Archeus per Blas ideale, atque seminale, diversas suscitatur alterationes.’

⁸⁰⁰ In this, Van Helmont is once again showing his indebtedness to Hippocrates’s equivalence between winds and flatulences.

blas is a prerogative of an acting thing or person, not of the recipient. The closest analogy one can offer is that of the will. Indeed, as Van Helmont points out himself, *blas* is the means by which superior things coerce inferior objects to obey them.⁸⁰¹ Being an act of ‘will’, *blas* does not require direct touching; hence, it often involves action at a distance or ‘occult influence’. In this sense, it is not surprising that Van Helmont gives as an example of ‘motive’ *blas* the influence that stars have on the sublunary world.⁸⁰²

As early as *De magnetica* (1621), Van Helmont believed that ‘there is a celestial and impulsive Nature in things themselves, the which notwithstanding, doth excite and govern it self according to the Harmony of a superiour tributary Motion’.⁸⁰³ This occult impulse, which went unnamed, was called ‘*blas*’ in the *Ortus*.

We have seen that Van Helmont differentiated between ‘motive’ *blas* (sometimes also called ‘local’) and ‘alterative’ *blas*. In the context of a discussion on Agents, Van Helmont expresses the following view:

of natural Agents, some are those which have a motive force, which I have called a motive Blas; but the Agents themselves I call moving strengths. But other moving Agents, I call an alterative Blas, to wit, those which do operate by the seminal force of a ferment.⁸⁰⁴

From this, the intentions of Van Helmont become clearer. ‘Motive’ *blas* is physical change effected by dynamic agents. Examples include that of ‘our will on its own Organs’,⁸⁰⁵ and ‘sympathetic’ Medicine.⁸⁰⁶ The source of motive *blas* is spiritual in essence, but the effect is physical.

Yet the typical example of motive *blas* is that caused by the stars and planets, so Van Helmont focusses especially on this one.⁸⁰⁷ The force that stars can exert is ‘flatuous, violent, motive’ (*enormonticam motivam vim*), a ‘pulsive virtue’ (*virtus*

⁸⁰¹ Van Helmont, chap. 42, ‘An Unknown Action of Government’, p. 330, ‘Ignota actio regiminis’, p. 266.

⁸⁰² Van Helmont, chap. 14, ‘The Blas of Meteours’, p. 78, ‘Blas meteoron’, p. 64.

⁸⁰³ Van Helmont, chap. 112, ‘Of the Magnetick Cure of Wounds’, p. 772, ‘De magnetica vulnerum curatione’, p. 604: ‘Sat est itaque, hic obiter ostendisse, naturam coelestem & enormonticam rebus ipsis inesse, quae tamen ad rhythmum superioris lationis sese concitet ac moderetur’

⁸⁰⁴ Van Helmont, chap. 42, ‘An Unknown Action of Government’, p. 325, ‘Ignota actio regiminis’, p. 262: ‘Sunt autem agentium naturalium, quaedam habentia vim motivam, quam Blas motivum dixi: ipsa vero agentia, voco robora moventia. Reliqua autem moventia, Blas alterativum dico, quae videlicet operantur per fermenti vim seminale.’

⁸⁰⁵ Van Helmont, chap. 76, ‘Things Received which are Injected or Cast In’, p. 569, ‘Recepta injecta’, p. 453

⁸⁰⁶ Van Helmont, chap. 42, ‘An Unknown Action of Government’, p. 330, ‘Ignota actio regiminis’, p. 267.

⁸⁰⁷ Van Helmont, chap. 24, ‘The Blas of Man’, p. 177, ‘Blas humanum’, p. 145.

pulsiva) or a 'masculine force' (*masculum*).⁸⁰⁸ Thus, the motive *blas* of the stars causes seasons, winds, storms and floods.⁸⁰⁹ The most important result of the motive *Blas* of stars is wind, which is a 'flowing air' (*fluens aer*).⁸¹⁰ Here again Van Helmont connects his theory with the Hippocratic *to enhormon*.⁸¹¹

The activity that produces 'alterations' within things belongs to the another type of *blas*, the alterative one. This type of *blas* can be external or internal to the body. Examples of external alterative *blas* include odours of the principiating Ferments, and the stars, which act by heat or cold.⁸¹² The strongest alterative changes are caused chiefly by the Sun and the Moon.⁸¹³ The alterative *blas* is particularly connected with the entire process of generation from seed to the adult being, flowing from 'the will of the flesh, and the lust or desire of a manly will.'⁸¹⁴

The most elaborate example of *blas* Van Helmont gives is the one existing in man, which he calls *blas humanum*. This *blas humanum* should not be understood as a third category of *blas*, as Pagel presented it, but as an illustration of *blas* in general. In other words, the division of *blas* into motive and alterative applies to *blas humanum* as well.

To elucidate *blas humanum*, Van Helmont first postulates that there is an internal heaven within us, which can initiate *blas*.⁸¹⁵ The concept is directly drawn from Paracelsus, who upheld the existence of an internal heaven that follows the movements of the external heaven, according to his theory of microcosm-macrocosm harmony.⁸¹⁶ From Paracelsus, Van Helmont inherited the idea that the human body, being created last in Genesis, follows the movements of the stars which were created before Man. Thus, according to Van Helmont, each organ within our body follows the movements of a planet.⁸¹⁷ This concept was commonplace in the Paracelsian speculation of Van

⁸⁰⁸ Van Helmont, chap. 14, 'The Blas of Meteours', pp. 78-79, 'Blas meteoron', p. 65.

⁸⁰⁹ Van Helmont, chap. 14, 'The Blas of Meteours', p. 78, 'Blas meteoron', p. 65. I found no support for Pagel's contention that *blas* is a 'gravitational force', p. 87.

⁸¹⁰ Van Helmont, chap. 15, 'A Vacuum of Nature', p. 81, 'Vacuum naturae', p. 67.

⁸¹¹ Van Helmont, chap. 15, 'A Vacuum of Nature', p. 81, 'Vacuum naturae', p. 67: 'Hippocrates ventum, flatum vocat, omnes morbos a flatibus esse, suum *to enhormon* recenset inter primarias morborum causas'. This association was also recognised by Pagel, *Joan Baptista Van Helmont*, p. 87.

⁸¹² Van Helmont, chap. 14, 'The Blas of Meteours', p. 78, 'Blas meteoron', p. 65. Van Helmont includes the Sun and the Moon amongst the stars.

⁸¹³ Van Helmont, chap. 14, 'The Blas of Meteours', p. 79, 'Blas meteoron', p. 66.

⁸¹⁴ Van Helmont, chap. 24, 'The Blas of Man', p. 177, 'Blas humanum', p. 145.

⁸¹⁵ Van Helmont, chap. 24, 'The Blas of Man', p. 177, 'Blas humanum', p. 145.

⁸¹⁶ Paracelsus, 'Paragranum', in *Paracelsus: Essential Theoretical Writings*, pp. 173-177; see also Weeks, *Paracelsus: Speculative Theory*, p. 120.

⁸¹⁷ Van Helmont, chap. 24, 'The Blas of Man', p. 177, 'Blas humanum', p. 145: 'Unumquodque nempe viscus, ad typum sui Astri, intus proprium sibi Blas format, quod & hinc astrale dicitur. Eo quod imitetur coeli vestigia, tam prioritate dierum, praecursoris astri, quam legibus destinationum, in natura.'

Helmont's time, being drawn from medieval astrological medicine.⁸¹⁸ We have already seen it reflected in the concept of the *Archei insiti*, the rulers of the organs.⁸¹⁹

Van Helmont points out that *blas humanum* is most visible in diseases, when the human body precedes and in a way forecasts future tempests, presumably because the *blas humanum* acts quicker than the *blas* of the stars on elements. Likewise, the *blas* of the healthy human follows the changes of seasons.⁸²⁰ Van Helmont further classifies this type of 'spontaneous' *blas* as one occurring by natural motion (*naturali motu*).⁸²¹

By connecting the idea of *blas* with that of will Van Helmont is attempting not only to express the concept of God's omnipotence in the Universe, but also to articulate it into a practical philosophy that explains natural change. Once again, we can perceive Van Helmont's Christian philosophy in action: he takes what he sees as the orthodox Christian tradition of voluntarism and applies it as an unifying concept of meteorology, biology and psychology. Again, the key to understanding all this change is God, whose will is both the archetype of all other wills and, in the sense of primary cause, the direct implementer of change in all things.

4.2.4. Conclusions

For Van Helmont, the natural world betrays the permanent presence of God; His will is inextricably bound with that of the universe. This is not a geometer God who designs the world, impresses it with motion and then lets it unfold by itself, but a God who participates and intervenes constantly in matter. He is the Logos, the principle of intelligibility that makes knowledge possible.

The fundamental concept of divine intervention is articulated in two ways: a subtle one, by means of secondary causes, and another direct one, by the injection of light-forms. In either case, God never quite disappears from Van Helmont's attention. In regards to the first case, God acts by means of Nature, but this is not independent. Instead, it is portrayed almost as a glove in His hand, doing what God wants it to do. All movement in Nature can eventually be traced back to God's will and intentions.

⁸¹⁸ See, for instance, Croll, 'Admonitory Preface', pp. 59-60.

⁸¹⁹ See above, 4.2.3.2.

⁸²⁰ Van Helmont, chap. 24, 'The Blas of Man', p. 177, 'Blas humanum', p. 145.

⁸²¹ Van Helmont, chap. 24, 'The Blas of Man', p. 177, 'Blas humanum', p. 145: 'Duplex itaque Blas in nobis. Unum nempe, quod naturali motu, alterum vero voluntarium, quod per internum velle sibi motor existit'.

We have seen that this view approaches that of the mechanists. Nature can be seen as a *machina mundi*, being wholly controlled by God as the principle of life and intelligence in the Universe. At the same time, the image of Nature as a clock would probably have been dismissed by Van Helmont, had he known about it. First of all, Van Helmont perceives Nature primarily as *physis*, an inner agent that impresses order and direction in the Universe. Hence Nature can be perceived as power ordained by God to activate inert matter. Secondly, Van Helmont thinks inert matter still has a type of desire, or yearning for the form. Perhaps this is a remnant of Aristotelianism, but it may also be linked with his belief in the absolute origin of everything in God. Thus, even inert matter shares something of God by virtue of being created by Him: hence, it cannot truly be dead.

Besides the subtle action by secondary causes, God's most prominent role in Nature, the role that guarantees that He is not a *deus otiosus* that creates and then withdraws from his Creation, is His action of bestowing life and form. As 'Father of Lights', God performs what may be termed as a 'continuous miracle', participating directly in the generation of all things.⁸²² Without His vital light, any body, no matter how well formed by the inner Archeus, would degenerate in a dead mass, or a monster.⁸²³

It is hence no wonder that Van Helmont believes that his theory of God as form-giver is the purest type of Christian philosophy.⁸²⁴ His conviction, argued from the Bible, is that God is permanently present, only active in Nature but visible in His effects. Hence Van Helmont draws on St Paul, who states that God is 'not far from every one of us'; he includes the whole universe in this statement to suggest God is present and acts in every being.⁸²⁵

Yet the goodwill of God manifests itself further, because there is one ultimate creation which surpasses all others, and in which God is more present than in Nature. That, of course, is Man, which Van Helmont primarily viewed as 'the image of God' in

⁸²² This idea of God's permanent intervention in matter was later criticised by Leibniz, in *De usu et necessitate demonstrationum immortalitatis animae*: 'I do not see why it is necessary to posit a new creation of minds as often as a man is generated, by always calling on God for perpetual miracles, like a *Deus ex machina*'. Leibniz firmly stood by a traducianist position according to which all souls, including human souls, were perpetrated by the *semen*. On this see Arthur, 'Animal Generation and Substance', pp. 155-157.

⁸²³ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 143, 'Ortus formarum', p. 116.

⁸²⁴ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 133, 'Ortus formarum', p. 108: 'Quorsum ergo, cum Archeus devenerit, nec interim ultra progredi valeat, sistiturque tandem formas, de manu Patris luminum recipit, postquam plene suis est functus muniis. Haec sic dictat Christiana Philosophia'.

⁸²⁵ Acts 17:27: 'That they should seek the Lord, if haply they might feel after him, and find him, though he be not far from every one of us'.

accordance with Scriptural precedents. Van Helmont's natural philosophy makes no sense without the inclusion of Man in it as the vicar of God in Creation. Hence Van Helmont views Man as both the summit and the end of all Creation, which was 'laid at his feet' for enjoyment and use.

4.3. Man

Van Helmont's anthropology is deeply embedded in his speculation on other entities like God and Nature. In this sense, his thought reveals both the interconnections between his theology, mystical thought and natural philosophy, as well as the centrality of Man in his Christian Philosophy.

Man, Van Helmont believes, is different from and superior to Nature. This view is drawn by the Flemish philosopher from the Biblical account. The book of Genesis shows that Man was created differently from the rest of Nature, through the 'mystery' of an anomalous creation (*mysterium hujus anomalae creationis*).⁸²⁶ Everything was created *ex nihilo*, except for Man, who was fashioned of the dust of the earth (*limus terrae*). Hence, concludes Van Helmont, Man at his conception was completely different from all other living beings.

Van Helmont's view of Man was also strongly coloured by the dichotomy between the human essence as immortal substance, and his historical dimension inflicted by Original Sin. The Sin caused a fundamental scission in the human being, whose immortal part (the *mens*) retreated deep within the body, while the mortal part (the quasi-animal *anima sensitiva*) took over, inflicting pain, disease and death. Felicitously, this dramatic condition can be partially mitigated in two ways: through alchemical medicine, which can cure diseases and even extend life, and through self-knowledge, which allows one to know his true divine origin. However and ultimately, the only way to salvation is through Jesus Christ, who alone can regenerate the human being by means of His merciful death and the Sacraments He instituted.

This story of Man is followed by Van Helmont in different treatises throughout the *Ortus*. An analysis of the compendium reveals a certain incoherence, as treatises are not always ordered meaningfully or revealingly. For instance, the treatise 'The Image of the Mind' ('Imago Mentis'), which is the cornerstone of Van Helmont's philosophy of Man, appears only as the thirty-fifth chapter in the book. It is also virtually

⁸²⁶ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 144, 'Ortus formarum', p. 117.

indistinguishable from the treatise ‘The Image of God’ (‘Imago Dei’), which occurs as the one hundred and third chapter as part of Van Helmont’s account of long life. At the same time, ‘The Image of the Mind’ is clearest when read in conjunction with ‘The Compleating or Perfecting of the Mind’ (‘Mentis complementum’) (chap. 40), ‘The Hunting, or Searching Out of the Sciences’ (‘Venatio scientiarum’) (chap. 3), and the pieces composing the ‘Treatise on the Soul’ (‘Tractatus de anima’) (chaps. 44-48). These demonstrate a comprehensive understanding of the inner structure of Man and mystical knowledge.

On the other hand, these treatises must be read in conjunction with the ‘theological’ treatises, which were relegated to the end of the *Ortus* and are most likely connected with the projected ‘Book of Long Life’.⁸²⁷ These are chiefly ‘The Entrance of Death into Human Nature is the Grace of Virgins’ (chap. 91), ‘A Position’ (chap. 92), ‘The Position is Demonstrated’ (chap. 93) and ‘The Understanding of Adam’ (chap. 102). An assessment of his views on medicine and alchemy cannot be complete without the other treatises on long life (‘Life’, ‘Short Life’, ‘Eternal Life’, ‘The Arcanums or Secrets of Paracelsus’ and ‘The Tree of Life’, chap. 110-116). In addition, I have also paid particular attention to Van Helmont’s middle treatise ‘On the Magnetick Cure of Wounds’ (‘De magnetica vulnerum curatione’), which lays out very clearly his doctrine of the ‘inner’ and ‘outer’ man, a recurring motif that shapes his view of the relationship between the mind and the sensitive soul.

The chapter is structured as follows: in the first part, four recurring themes on man are set out: man as the Image of God, the dichotomy of the inner and outer man, man’s history and the possibility of *scientia*. In the second part, Van Helmont’s philosophy of man is investigated in further depth, including his vision of a Duumvirate of mind and the sensitive soul, the acquisition of mystical knowledge, and the sacred art of medical alchemy, which expresses Van Helmont’s ideal of Christian charity.

4.3.1. Four Themes on Man

4.3.1.1. Man as Imago Dei

Just like other Christian thinkers, Van Helmont began his study of man with the fundamental text of Genesis 1:26, wherein the creation of man is depicted. There it is stated:

⁸²⁷ See above, chap. 2.2.2.

Then God said, 'Let us make man in our image, in our likeness, and let them rule over the fish of the sea and the birds of the air, over the livestock, over all the earth, and over all the creatures that move along the ground.'⁸²⁸

The Scripture convinced Van Helmont that 'man alone was made after the Image of God'⁸²⁹ and that 'from the intent of God, he is created into the living Image of God, in an immortal substance, that he may know, love and worship God'.⁸³⁰ Thus, Van Helmont follows a long Christian tradition of conceiving man as *imago Dei*.⁸³¹

This idea is a mainstay throughout Van Helmont's writings from the early to the late stage. However, one can notice a change in his conception of what 'image of God' means and what qualifies under that title. For instance, in his middle *De magnetica*, Van Helmont seems willing to accept that, to some extent, 'all things do ... represent that venerable Image'.⁸³² Here Van Helmont takes a fundamentally Pseudo-Dionysian stance by postulating a hierarchy of similarity to God amongst creatures, at whose summit stands man: 'Man doth most elegantly, properly and nearly do that [i.e. represent God], therefore the Image of God in Man doth far outshine, bear rule over, and command the Images of God in all other Creatures.'⁸³³

⁸²⁸ Gen. 1:26.

⁸²⁹ Van Helmont, chap. 3, 'The Hunting or Searching out of Sciences', p. 21, 'Venatio scientiarum', p. 21: 'Homo nimirum ad Dei imaginem solus factus'.

⁸³⁰ Van Helmont, chap. 3, 'The Hunting or Searching out of Sciences', p. 21, 'Venatio scientiarum', p. 22: 'ex intentione divina, creatus est in imaginem Dei viventem, in substantia immortalis, ut Deum cognoscat, amet, & adoret, secundum lumen typi, sibi impressum.'

⁸³¹ For the tradition of Man as *imago Dei* in the Western Middle Ages, see Bernard McGinn, 'The Human Person as Image of God: II, Western Christianity', in *Christian Spirituality I: Origins to the Fifth Century*, ed. by Jean Leclercq, Bernard McGinn, John Meyendorff (New York: Crossroad, 1985), pp. 312-330. The importance of the *imago Dei* motif in Van Helmont's anthropology was acknowledged by Guido Giglioni, who called it 'the cardinal concept of Helmontian metaphysics', *Immaginazione e malattia*, p.150, and called the conclusion of his book 'The Image of God', pp. 169-175.

⁸³² Van Helmont, chap. 112, 'The Magnetick Cure of Wounds', p. 780, 'De magnetica vulnerum curatione', p. 610: 'universa quoque...venerandum illud simulacrum referunt'.

⁸³³ Van Helmont, chap. 112, 'The Magnetick Cure of Wounds', p. 780; 'De magnetica vulnerum curatione', p. 610: 'verum quia homo elegantissime, propriissime, atque proxime, ideo imago Dei in homine, praepollet, dominatur & imperat simulacris Dei aliarum creaturarum.' Pseudo-Dionysius the Areopagite had affirmed that all creation partakes of divinity in hierarchical fashion, and that 'all its members [are] the images of God'; 'The Celestial Hierarchy', in *The Complete Works*, trans. by Colm Luibheid (New York: Paulist Press, 1987), pp. 154-156. This hierarchical view of being had a long tradition of medieval and Renaissance thought; for a general assessment of the influence of Pseudo-Dionysius in the Middle Ages see Jean Leclercq, 'Influence and Noninfluence of Dionysius in the Western Middle Ages', in Pseudo-Dionysius, *The Complete Works*, trans. by Colm Luibheid (New York: Paulist Press, 1987), pp. 25-32 (27-31). Closer to Van Helmont, Marsilio Ficino affirmed that each thing imitates the divine form to the best extent possible; see *Opera omnia*, 2 vols (Basel, 1561), I, 107. See also Paul Oskar Kristeller, *The Philosophy of Marsilio Ficino* (New York, NY: Columbia University Press, 1943), pp. 74-92.

By comparison, the later Van Helmont takes a much stronger anthropocentric stance in regards to the concept of the 'image of God', and is willing to extend this privilege only to human beings. To do this, he must first of all clearly distinguish man from the other immortal substance, the angel. Thus, Van Helmont claims, angels are not the image of God. Instead, they are a mirror of the 'uncreated light', not a divine Image.⁸³⁴ In making this rather surprising statement, Van Helmont attempts to distinguish between 'image' and 'mirror' in a way that departs from the fundamentally Pseudo-Dionysian background of his speculation. Pseudo-Dionysius effectively saw the notions of 'image' and 'mirror' as equivalent.⁸³⁵ By comparison, Van Helmont believes that the human mind alone is the image of God, and affirms that an 'image' is something that has its own internal, independent existence. This is stated in his discussion of light: the mind as image of God has an internal subsisting light, while the angel as 'mirror' does not contain light, but simply reflects that of God on its surface.⁸³⁶ It is in this sense that Van Helmont argues that the angel is 'deficient' in his ability to be the image of God.

This affirmation of 'deficiency' in angels reveals the Flemish philosopher's agenda of affirming the superiority of man over any other being except God. To advance his theory, Van Helmont also adduces yet another proof, that of divine preference for man: 'whatsoever God more loveth, that thing is more noble for that very cause: but God hath loved man more than the Angel'.⁸³⁷ Indeed, God out of his own sheer will created 'his own Image in flesh' in the shape of Adam and Eve.⁸³⁸ Hence, man is truly 'the delight of the Son of man, the Temple of the Holy Spirit, wherein the thrice glorious Trinity hath made its Mansion'.⁸³⁹

Moreover, the superiority of man to the angel is most starkly affirmed by the fact that God chose to embody himself as a human being. Thus, out of sheer love, Christ took upon himself the 'nature of a servant' in order to save mankind from its sin.⁸⁴⁰ The

⁸³⁴ Van Helmont, chap. 35, 'Image of the Mind', p. 265, 'Imago mentis', p. 214: 'Ast Angelus non est ipsum lumen, nec habet lumen geniale sibi internum: sed est speculum luminis increati. Adeoque in eo deficit, a verae imagines divine perfectione'.

⁸³⁵ St Dionysius had affirmed that all creatures are 'clear and spotless mirrors' of God, hence images of God; Pseudo-Dionysius, 'The Celestial Hierarchy', p. 154.

⁸³⁶ Van Helmont, chap. 35, 'Image of the Mind', p. 265, 'Imago mentis', p. 214.

⁸³⁷ Van Helmont, chap. 35, 'Image of the Mind', p. 265, 'Imago mentis', p. 214: 'Porro, quicquid Deus plus diligit, id eo ipso est nobilior: sed Deus dilexit plus hominem, quam Angelum'.

⁸³⁸ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 661, 'Demonstratur thesis', p. 522.

⁸³⁹ Van Helmont, chap. 35, 'Image of the Mind', p. 265, 'Imago mentis', p. 214: '...deliciae Filii hominis, templumque Spiritus Sancti, in quo Ter gloriosa Trinitas suam fecit mansionem'. The theme of man as 'Temple of God' also appears in Tauler, *The Sermons*, p. 228.

⁸⁴⁰ Van Helmont, chap. 35, 'Image of the Mind', p. 265, 'Imago mentis', p. 214.

fact that God the Son chose to become a man shows that human being is prized by God above all other creatures.⁸⁴¹

Having clearly stated the superiority of man to the angels as the true image of God, Van Helmont consequently confirms that no other created being partakes of the favour of being *imago Dei*. Thus, 'the Dignity of the Image of God is not any way participated of by other created things'.⁸⁴² This privilege is reserved to humankind alone as an exceptional creation.

In making this elaborate argument, it is clear that Van Helmont's stance is strongly coloured by the humanist tradition. Possible sources include Johann Tauler and Pico della Mirandola.⁸⁴³ One must also not forget that many Paracelsians were also strong supporters of humanist views, which in their mind proved the capacity of Man to become an enlightened philosopher-magus. Indeed, we can find in Croll the same affirmation that Man alone is the image of God, a gift neither granted to the angels nor to any other being.⁸⁴⁴

At the same time, Van Helmont's exaltation of the human being is immediately balanced by a pessimistic view of the present state of man as a fallen creature. In this sense, Van Helmont considers that the image of God is the 'true Man' [*verus homo*], the pre-lapsarian Adam, and not the one after the Fall.⁸⁴⁵ The perfection of Man as *imago Dei* was profoundly tainted by Original Sin, which to Van Helmont was a dramatic event that separated not only Man from God, but Man from his own true self. Original Sin effectively sunders man in two: the archetypal Adam, made up of mind and body and the fallen Adam, or our present tripartite state of mind, sensitive soul and body.⁸⁴⁶

Such a dramatic dichotomy is moderated by Van Helmont's affirmation that the archetypal Adam, or the true *imago Dei*, is hidden within the fallen Adam and could be rediscovered through a mystical process of self-knowledge. Thus, Van Helmont believes that the present status of Man is such that he lives in a permanent tension

⁸⁴¹ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 669, 'Demonstratur thesis', p. 530.

⁸⁴² Van Helmont, chap. 35, 'Image of the Mind', p. 269, 'Imago mentis', p. 218: 'Quia dignitas imagines Dei, non participatur ullatenus ab aliis creatis. Siquidem imago Dei est duntaxat intima menti, tamque illi propria, quam est ipsi sua ipsius essentia'.

⁸⁴³ Johann Tauler argued that the soul of man resembles more than any other creature, including the angels, the beauty of God; Tauler, *The Sermons*, p. 230. In his turn, Pico della Mirandola had maintained that 'when we have willed it, we shall not at all be below them [the angels]'; Giovanni Pico della Mirandola, 'On the Dignity of Man', in *On the Dignity of Man, On Being and the One, and Heptaplus*, trans. by Charles Glenn Wallis, Paul J.W. Miller and Douglas Carmichael (Indianapolis, IN: Bobbs-Merrill, 1965), pp. 1- 34 (p. 7).

⁸⁴⁴ Croll, 'Admonitory Preface', p. 65. At the same time, Croll is more inconsistent than Van Helmont, since he had previously stated that 'the world was the first figure or image of God', p. 56.

⁸⁴⁵ Van Helmont, chap. 93, 'The Position is Demonstrated', p. 668, 'Demonstratur thesis', p. 529.

⁸⁴⁶ See below, sub-chapter 'Fall of Man', for a deeper analysis of the Genesis account of the lapse of Adam.

between the two faces of Adam. Hence, the Flemish thinker embraces the Pauline notion of the inner and outer man, which became a recurring motif that encapsulated the essence of his anthropology.

4.3.1.2. Inner and Outer Man

The concept of ‘inner’ and ‘outer’ man has a venerable tradition in Christian thought.⁸⁴⁷ It was developed predominantly by Philo of Alexandria in the context of his Biblical thought, and was translated into Christianity chiefly by the Apostle Paul. In the Apostle’s letters to the Romans, he equated the inner man with the mind, or the *pneuma*, and opposed it to the outer man, which is carnal and inferior.⁸⁴⁸

Based on the authority of St Paul, the inner versus the outer man became an important trope in Augustinian thought. St Augustine, influenced by both Plotinus and St Paul,⁸⁴⁹ upheld the superior nature of the *homo interior* versus the *homo exterior*, who is concerned with what is fleshly.⁸⁵⁰ For Augustine, the inner man was alternatively represented by the rational soul (*animus*), the mind (*mens*) or the soul (*anima*).⁸⁵¹

Medieval thought, inspired by St Paul and St Augustine, also emphasised the idea of the human as *homo duplex*, the interior and exterior man.⁸⁵² Medieval spirituality particularly used the Paulinian-Augustinian concept of *homo interior* to express the ideals of inner or mystical life. For instance, Peter Damian (1007-1072), Hugh of St Victor (c.1096-1141), Richard of St Victor (d.1173) and William of St Thierry (d.1148) emphasised the inner experience of the human being. The same emphasis on the inner self was expressed by St Teresa of Avila, Thomas à Kempis and Meister Eckhart,⁸⁵³ and it was also part of the discourse of the Dutch *Devotio Moderna*

⁸⁴⁷ Hans Betz argued that the concept is religious, not philosophical, but Geurt Van Kooten showed that it also appeared in Plato and Plotinus; see Hans Betz, ‘The Concept of the “Inner Human Being” in the Anthropology of Paul’, *New Testament Studies* 46 (2000), 315-341 (p. 316); Geurt Van Kooten, *Paul’s Anthropology in Context: the Image of God, Assimilation to God, and Tripartite Anthropology in Ancient Judaism, Ancient Philosophy and Early Christianity* (Tübingen: Mohr Siebeck, 2008), p. 366. Theoretically, Plotinus could have taken the idea of inner man from Christian speculation, but Van Kooten is of the opinion that both Plotinus and St Paul drew on common philosophical sources; Van Kooten, *Paul’s Anthropology*, p. 375.

⁸⁴⁸ Rom 7:22-25.

⁸⁴⁹ For Plotinian influence see Denys Taylor, *The Darkness of God: Negativity in Christian Mysticism* (Cambridge: Cambridge University Press, 1998), pp. 75-79. St. Augustine refers directly to Paul’s inner man in *Against Faustus* 24:2.

⁸⁵⁰ St Augustine, *On John’s Epistle*, in *The Works of Saint Augustine*, ed. by J.E. Rotelle (New York, NY: New City Press, 1990), III, 12, 99:4, *The City of God*, 13.24.2.

⁸⁵¹ See St Augustine, *Confessions*, 10.6.9, *On John’s Epistle*, 99.4.

⁸⁵² Lionel Friedman, ‘Occulta Cordis’, *Romance Philology*, 11:2 (1957), 103 – 111 (pp. 105-106).

⁸⁵³ Jeanne Ancelet-Hustache, *Meister Eckhart and Rhenish Mysticism* (Bucharest: Univers Enciclopedic, 1997), pp. 58-59. Eckhart refers to this inner man as ‘the spirit of the soul’, ‘the most interior soul’ or ‘the

movement.⁸⁵⁴ Moreover, it was particularly seized upon by the German theologian Johann Tauler, whom Van Helmont directly mentions in conjunction with these ideas.⁸⁵⁵

The middle Van Helmont was a wholehearted supporter of the idea of the *homo exterior* and *homo interior*. In *De magnetica*, he states that ‘by the consent of Mystical Divines, we divide Man into the external, and internal Man, assigning to both the powers of a certain Mind or Intelligence’.⁸⁵⁶ Van Helmont theorises that the inward man (*homo interior*) communicates with God, while the outward man (*homo exterior*) communicates with the physical world.⁸⁵⁷

Middle Van Helmont proceeds to affirm that one of the chief powers of the *homo interior* is magic.⁸⁵⁸ Magic, he says, is a natural force and ‘privilege’ of the inward man, whereby he can consciously move far away objects only by his thought or word.⁸⁵⁹ The power of man is hence manifested not only by physical strength, or mental intelligence, but also by magical influence.⁸⁶⁰ This is because man resembles God, who can create all things just by a manifestation of his will or the Word.⁸⁶¹ For middle Van Helmont, being the Image of God means that man is naturally an all-powerful creature who could command anything at his mere will, even at a distance: ‘Man predominates over all other corporeal Creatures, and [...] by his natural Magick, he is able to tame the Magical Virtues of other things.’⁸⁶² This power, Van Helmont considers, is by far stronger than the similar unconscious power present in animals or the outward man, ‘from whence there are made most potent Procreations, most famous Impressions, and

sparkle of the soul’ (*scintilla animae*). See also Bernard McGinn, *The Harvest of Mysticism in Medieval Germany* (New York, NY: Crossroads Publishing, 2005), p. 123.

⁸⁵⁴ Hein Blommestijn, Charles Caspers, Rijcklof Hofman, *Spirituality Renewed: Studies on Significant Representatives of the Modern Devotion* (Leuven: Peeters, 2003), p. 35.

⁸⁵⁵ On Tauler’s anthropology of the inner and outer man, see McGinn, *The Harvest of Mysticism in Medieval Germany*, pp. 251-252.

⁸⁵⁶ Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, p. 776, ‘De magnetica vulnerum curatione’, p. 607: ‘Consensu inprimis Theologorum mysticorum, hominem dividimus in externum & internum; utrique assignantes mentis cujusdam potestates’.

⁸⁵⁷ Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, p. 776, ‘De magnetica vulnerum curatione’, pp. 607-608.

⁸⁵⁸ Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, p. 790, ‘De magnetica vulnerum curatione’, p. 618.

⁸⁵⁹ Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, pp. 790-791, ‘De magnetica vulnerum curatione’, p. 618: ‘in homine sitam esse energiam, qua solo nutu & phantasia sua queat agree extra se, & imprimere virtutem, aliquam influentiam, deinceps per se perseverantem & agentem in objectum longissime absens’.

⁸⁶⁰ Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, p. 791, ‘De magnetica vulnerum curatione’, p. 618.

⁸⁶¹ Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, p. 780, ‘De magnetica vulnerum curatione’, p. 610.

⁸⁶² Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, p. 785, ‘De magnetica vulnerum curatione’, p. 614: ‘...hominem caeteris creaturis corporalibus predominari, & magia sua naturali domare posse aliarum rerum virtutes magicas’.

most strong Effects.’⁸⁶³ This is because the more spiritual the imagination is, the more powerful it is.⁸⁶⁴

In his concept of the *homo interior*, middle Van Helmont draws on the mystical understanding according to which God is the innermost part of the self, citing Luke 17:21 (read as ‘The Kingdom of God is within you’) in his defence.⁸⁶⁵ He further states that ‘in the more inward bottom [*fundus*] of the Soul is the Kingdom of God’.⁸⁶⁶ This expression indicates the source of his speculation, namely the Ground (*Grund*) of the German mystical tradition. Van Helmont himself later reveals that he had Johannes Tauler’s speculation in mind.⁸⁶⁷

According to Tauler, ‘the image [of God] lies in what is most interior, in the completely hidden deepest ground of the soul [*Grunde der Seelen*], where God is present essentially, and actively, and substantially.’⁸⁶⁸ Middle Van Helmont took an active interest in Tauler’s views. According to his exposition of Tauler’s thought to Mersenne, the soul is not simple, but heterogeneous, being divided into the soul (*anima*) and the bottom of the soul (*fundus seu apice animae*).⁸⁶⁹ There lies ‘the kingdom of God’, where no creature can enter, least of all the devil. The ground of the soul contemplates Christ continuously, and is betrothed to God (*Deum sponsum*). Hence this ground of the soul does not fall under Original Sin, which affects only the soul (*anima*).

Although the later Van Helmont later disavows some of Tauler’s views, he does not desist from believing that the mind is the Kingdom of God which is within, and continues to uphold many of the tenets of the Taulerian account.⁸⁷⁰ Moreover, a closer reading of the *Ortus* reveals that Van Helmont continues to use the expression of ‘bottom of the soul’. For instance, he states that the senses cannot ‘reach to the bottom of the mind (*mentis fundus*) alone’ or that the light shone ‘inwardly, towards the bottom

⁸⁶³ Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, p. 789, ‘De magnetica vulnerum curatione’, p. 617: ‘...unde siunt potentissimae procreationes, impressiones augustissimae, & validissimi effectus’.

⁸⁶⁴ Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, p. 789, ‘De magnetica vulnerum curatione’, p. 617.

⁸⁶⁵ However, Luke 17:21 is ambiguous. The common reading is ‘the kingdom of God is among [*entos*] you’, but *entos* could also be read as ‘within’ you, like Van Helmont does. See Joseph A. Fitzmeyer, *The Gospel According to Luke, X-XXIV* (Garden City, NY: Doubleday, 1985), pp. 1160-1162.

⁸⁶⁶ Van Helmont, chap. 112, ‘The Magnetick Cure of Wounds’, p.785, ‘De magnetica vulnerum curatione’, p. 614: ‘...in interiore nempe animae fundo, regnum Dei est, ad quod nulla creatura accessum habet’.

⁸⁶⁷ Van Helmont, chap. 35, ‘The Image of the Mind’, p. 267, ‘Imago mentis’, p. 216.

⁸⁶⁸ Johannes Tauler, V29 (300.17-22). For a discussion of Ground in the context of the late medieval German mysticism, see Bernard McGinn, *The Harvest of Mysticism*, pp. 83-93.

⁸⁶⁹ The description henceforth originates from Van Helmont’s letter to Mersenne, ‘14 Février 1631’, pp. 98-99. Van Helmont leaves it to be understood that he agreed with these ideas.

⁸⁷⁰ Van Helmont, chap. 40, ‘The Completing or Perfecting of the Mind’, p. 313, ‘Mentis complementum’, p. 253.

of the Soul'.⁸⁷¹ Moreover, he refers to 'the more inward emptiness or voidness, bottom, and fabric of the mind'.⁸⁷² In 'A Treatise on the Disease of the Stone', he also states that, as he was meditating on the subject of apoplexy,

the bottome of the soul (so called by *Taulerus*) manifested itself unto me, which was nothing else but the immortal minde itself; to wit, in what great utter darknesses, it might be involved, as it were in coates of skin, as it was fast tied to, and entertained in the Inne of the very sensitive soul, while the terme of life endures.⁸⁷³

Despite the continuing appeal of the theory of the Grund, the later Van Helmont has a change of mind. He sees the concept as being too dualistic and interprets it as professing a duality of the soul.⁸⁷⁴ At this point, he identifies solely Tauler as the author of the concept, despite its antecedents in St. Paul and St. Augustine.⁸⁷⁵ The later Van Helmont believed that separating the outer man, or the soul (*anima*) from the inner man (*spiritus* or *fundus animae*) was equivalent to an arbitrary division of the immortal Soul (also called *anima*).⁸⁷⁶ He claimed that the Soul in its entirety was the image of God, and not only the inner man (the *spiritus*): 'Surely I shall not easily believe a duality of the immortal Soul [...] if it ought to shew forth in its very own essence, a unity'.⁸⁷⁷

The doctrine of the unity of the human soul was an important tenet of the Christian Church since the Council of Constantinople (AD 869) and Van Helmont was eager to uphold it. It was also a point where the Greek inheritance of natural philosophy could be seen to diverge from orthodox Christianity. Plato and Galen had argued for the

⁸⁷¹ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 312, 'Mentis complementum', p. 252; chap. 1, 'The Author's Confession', p. 10, 'Confessio authoris', p. 13.

⁸⁷² Van Helmont, chap. 47, 'The Knitting or Conjoyning of the Sensitive Soul and Mind', p. 352, 'Nexus sensitive & mentis', p. 285: '...de penitiori mentis vacuo fundo & fabrica...'

⁸⁷³ Van Helmont, *Opuscula medica inaudita*, 'A Treatise on Disease of the Stone', chap 9, p. 911; 'Tractatus de Lithiasi', chap. 9, 'Sensatio, insensilitas, dolor, indolentia, motus & immobilitas per morbos suae classis, Lepram, Caducum, Apoplexiam, Paralyisin, Spasmmum, Coma & c', p. 722: 'Proh dolor! Tum sese mihi manifestavit fundus animae, apud Taulerum sic dictus. Qui nil aliud, quam ipsa mens immortalis erat, quantis videlicet tenebris exterioribus, velut tunicis pelliceis, obvolveretur, quatenus alligata est, hospitaturque, durante termino vitae, in ipsius animae sensitivae diversorio.'

⁸⁷⁴ Interestingly, this is precisely the opinion that Bernard McGinn tries to refute, *The Harvest of Mysticism*, p. 251: 'Tauler's anthropology, read superficially, may seem dualistic. Therefore, it is important at the outset to insist that the preacher's distinction between the inner and outer person is not that between body and soul. Rather, the outer person represents the attitude we take toward the world around us, while the inner person concerns our relation to God and the soul'.

⁸⁷⁵ Van Helmont, chap. 35, 'Image of the Mind', p.267, 'Imago mentis', p. 216. He must have realised that St Augustine proffers similar beliefs, but it is very likely that he consciously avoided contradicting the African Father, who was held in high esteem by himself and most of his contemporaries (particularly those belonging to the Louvain school).

⁸⁷⁶ We have seen in the letter to Mersenne that he interpreted the theory of the Grund as meaning heterogeneity of the soul.

⁸⁷⁷ Van Helmont, chap. 35, 'Image of the Mind', p. 267, 'Imago mentis', p. 216.

existence of multiple souls in the body; Aristotle had more acceptably supported the existence of one soul with three parts, but in practice continued to refer to the human as having three ‘souls’ (vegetative, sensitive and rational), a division that could give birth to misunderstandings.⁸⁷⁸ When drawing from Greek philosophy, Christian philosophers had to be careful; no one could expound the heretical belief in the existence of several souls in the body without being accused of heresy.⁸⁷⁹

The later Van Helmont evidently worried that his doctrine of the inner and outer man could be accused of postulating two souls in one body. His strong affirmation of the unity of the soul must also be understood in the context of his alternative proposal of the duality of the mind and sensitive soul, which will be investigated in section 4.3.2 ‘Duumvirate’. Since both were in some sense ‘souls’ (one mortal and one immortal), this was bound to generate suspicion amongst Jesuits, particularly within the context of late Scholastic debates on the plurality of substances and forms.⁸⁸⁰ Medieval Augustinian thinkers like Henry of Ghent held that the soul is not the immediate form of the body, but the body has its own form; since form was equated with soul in the Aristotelian tradition, it could be construed that such proponents were advocating the existence of two souls in the body.⁸⁸¹ It was this tradition that Van Helmont was following, except that for him the sensitive soul replaces the mind at the helm of the body due to Original Sin.

Despite his sensitivity to doctrinal issues, the later Van Helmont continued to believe in the difference between the inner and outer man, although he generally avoided using these terms.⁸⁸² Indeed, his entire thought on man is impregnated with dualistic ideas of the difference between the immortal and the mortal side of man. The inner — outer division is particularly evident in his differentiation of the immortal mind (*mens*) from the sensitive soul (*anima sensitiva*) and his postulation of a ‘duumvirate’ that governs the body.

⁸⁷⁸ On this, see Des Chene, *Life's Form*, pp. 153-155. The fact that Galen had also placed the location of each soul in a different part of the body also created misunderstandings amongst natural philosophers. On this, see also Dag Nikolaus Hasse, ‘Plato Arabico-Latinus’, in *The Platonic Tradition*, ed. by Stephen Gersh and Maarten J.F.M. Hoenen (Berlin: Walter de Gruyter, 2002), pp. 41-42.

⁸⁷⁹ One philosopher accused of heresy was William of Ockham, who had postulated the existence of two souls, an intellectual and a sensitive soul in the body; however, he was never officially condemned for it. For Ockham, see for instance Gordon Leff, *William of Ockham* (Manchester: Manchester University Press, 1975), pp. 553-560. As Des Chene points out, p. 154, n. 4, late Scholastics such as the Coimbrans held Ockham's ideas to be an ‘error’ but not a heresy.

⁸⁸⁰ Gilson, *History of Christian Philosophy in the Middle Ages*, pp. 416-420.

⁸⁸¹ For Henry of Ghent's views and those of his Augustinian contemporaries, see Gilson, *History of Christian Philosophy in the Middle Ages*, pp. 451-452.

⁸⁸² There are exceptions; for instance, in chap. 93, ‘The Position is Demonstrated’, p. 669, ‘Demonstratur thesis’, p. 530, he talks about the Spirit which regenerates ‘the inward man’.

4.3.1.3. *Man's Sacred History: From Original Sin to Regeneration*

To understand Van Helmont's concept of Man it is important to acknowledge that he did not think of human being in static terms. The present condition of humanity has to be put in perspective by relating it to its past and future. The past and future are discontinuous and fundamentally inaccessible in Man's current fallen state, and yet by referring to them Man can understand his true nature.

Thus, the present human state cannot be comprehended without reference to the primordial time, the Paradisiacal state, when Adam and Eve were conceived as true images of God. Van Helmont took this to mean that they possessed an immortal mind and a body, without the interference of the sensitive soul. The mind, which was all-powerful, bestowed its own immortality upon the body, even though this one was not immortal in essence.⁸⁸³

Adam and Eve committed the Original Sin, and were duly cast out of Paradise. As already shown in chapter 4.1.5.1, Van Helmont believed that sexuality was the very cause of the Original Sin. For Van Helmont, the Original Sin resulted in three different and equally disastrous outcomes: the replacement of Virgin generation by Adamical or sexual generation, the removal of the Tree of Life, which meant the body could no longer sustain itself, and the substitution of false, carnal knowledge for perfect *scientia*.

The first and second outcomes meant the entrance of death into human nature. God did not make death; instead, by eating the Apple, Man condemned himself to suffer and die. Death, Van Helmont explains, is found 'immediately in the Archeus, but not the Soul'.⁸⁸⁴ Thus death could be considered an aspect of nature, since it occurred indiscriminately in animals and plants. Yet, faithful to his view of human exceptionalism, Van Helmont rejects the idea that our 'death' is the same as the 'death' of beings in nature: instead, the latter is only an 'extinguishment' or 'annihilation' of the vital light.⁸⁸⁵

The third outcome of the Original Sin resulted in an equal disaster: the knowledge of the Apple instantly caused a separation, or rather distancing of the immortal mind from the body, which could no longer be ruled.⁸⁸⁶ Since all *scientia* lay

⁸⁸³ Van Helmont, chap. 91, 'The Entrance of Death into Human Nature is the Grace of Virgins', p. 649, 'Mortis introitus naturam humanam', p. 514.

⁸⁸⁴ Van Helmont, chap. 92, 'A Position', p. 658, 'Thesis', p. 520: 'Mors enim in Archeo immediate est, non autem in anima'.

⁸⁸⁵ Van Helmont, chap. 109, 'Life', p. 745, 'Vita', p. 586

⁸⁸⁶ Van Helmont, chap. 91, 'The Entrance of Death into Human Nature is the Grace of Virgins', p. 650, 'Mortis introitus naturam humanam', p. 514.

in the mind, the self-creation of the sensitive soul effectively ‘obliterated’ the perfect knowledge Adam possessed, replacing it with the ‘dim and wretched discourse of Reason’.⁸⁸⁷ Hence man found himself on a par with animals, which also only possess the sensitive soul and the body.⁸⁸⁸ Yet one cannot fall into the trap of thinking that man is simply an animal, because he still bears the vestiges of the superior status of Adam. Thus, as has already been noted, the mind is the only one which can bestow life upon man; it also imprints its seal, or image, upon the embryo so that the human does not descend into a pure animal state.⁸⁸⁹

Yet, the New Testament tells us that human beings have been provided with the instruments of salvation. God the Son, in His infinite love, has sacrificed Himself on the cross to provide the path for the regeneration of souls. Hence Van Helmont does not hold a pessimistic view of mankind. On the contrary, he states that the Original Sin enabled us to experience something much more meaningful than Adam’s existence in Paradise: the profound love of God.⁸⁹⁰

Regeneration, Helmont insists, can only be accomplished through the intermediation of Jesus Christ, who is ‘the Father of Virginité’ and the ‘Father of the Age to come’.⁸⁹¹ As already noted, Christ effects a transformation of the tainted Adamical flesh into the Virgin flesh.⁸⁹² Van Helmont seems less concerned about what will happen after death; he has little to say about the afterlife. Having been regenerated during life, the mind will return to its rightful place at the helm of the body, glorifying it.⁸⁹³ The body will be purified and altered into the form of a Spirit.⁸⁹⁴ Of course, this is for those beings that had been saved; otherwise, they will be raised but destined for damnation.⁸⁹⁵

Van Helmont’s thought was strongly concerned with eschatology; however, by comparison to his fellow Protestant Paracelsians, Van Helmont refrained from formulating an expectation of an immediate coming of Christ. We have seen that the millenarian view was a powerful current in Protestantism, and that it was also an important aspect of Paracelsian speculation. Yet, as a Catholic, Van Helmont could not

⁸⁸⁷ Van Helmont, chap. 101, ‘The Understanding of Adam’, pp. 711-712, ‘Intellectus Adamicus’, p. 561: ‘caliginoso tamen, miseroque rationis discursu obtenebratae’.

⁸⁸⁸ Van Helmont, chap. 101, ‘The Understanding of Adam’, pp. 711-712, ‘Intellectus Adamicus’, p. 561.

⁸⁸⁹ Van Helmont, chap. 101, ‘The Understanding of Adam’, p. 712, ‘Intellectus Adamicus’, p. 562.

⁸⁹⁰ Van Helmont, chap. 92, ‘A Position’, p. 660, ‘Thesis’, p. 521.

⁸⁹¹ Van Helmont, chap. 93, ‘The Position is Demonstrated’, pp. 669; 670, ‘Demonstratur thesis’, p. 530.

⁸⁹² Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 670, ‘Demonstratur thesis’, p. 531. See above, 4.1.4.2 ‘Christ as Saviour’.

⁸⁹³ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 665, ‘Demonstratur thesis’, p. 527.

⁸⁹⁴ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 673, ‘Demonstratur thesis’, p. 533.

⁸⁹⁵ Van Helmont, chap. 111, ‘Life Eternal’, p. 751, ‘Vita aeterna’, p. 590.

advocate an immediate Second Coming. This is the more interesting as he was probably exposed to the strongly chiliastic Paracelsianism of the early 1600s and not without consequences. Evidence of this can be seen in his occasional mentions of the figure of Elias Artista.⁸⁹⁶ The legend that the Second Coming was to be prefigured by the imminent arrival of the greatest alchemist of all, Elias Artista, had been propagated by Paracelsus himself.⁸⁹⁷ This idea received numerous adherents at the turn of the seventeenth century, and it seems that Van Helmont was one of them. However, the imminence of the Second Coming was not something the Catholic Counter-Reformation looked lightly upon, hence Van Helmont's rather subdued mention of the mythos. Yet this type of belief, combined with Van Helmont's support of illuminationist ideas and his strong Augustinian leanings, might explain why his writings were so well received in Protestant lands.

For those who are saved, the history of Man is a journey which may seem circular. However, Van Helmont suggests that, while the future may be a restoration, the journey profoundly changes the human being. In the past the model was Adam; but in the future, the highest ideal is Jesus Christ, the 'second Adam'.⁸⁹⁸ We thus perceive in Van Helmont a revaluation of the journey, as a precious and transformative experience which lifts man higher than Adam. Thus, he observes,

the state of the Faithful, although throughout their whole Life, as also in Death itself, be far more miserable than the primitive State, yet it is more happy than that, by how much it is a thing fuller of Majesty, to be more like the Son of God Incarnate, dead and glorified, than to have lived with

⁸⁹⁶ Van Helmont, chap. 59, 'A Modern Pharmacopolion and Dispensatory', p. 459: 'But it is to be feared, lest he who hath suffered the Books of Salomon to perish, may reserve this knowledge of Simples for the age of Elias the Artist'; 'Pharmacopolion ac Dispensatorium modernorum', p. 369: 'Sed verendum ne is, qui permisit perire libros Salomonis, reservet hanc simplicium scientiam in aevum Eliae artistaе'; *Opuscula medica inaudita*, 'Treatise on the Disease of the Stone', chap. 7 'Duelech Dissolved', p. 883, 'Tractatus de Lithiasi', chap. 7, 'Duelech resolutum', p. 701: 'For it hath pleased the most High to send before the Elias of Arts, a fore-runner, teaching the Crasis or constitutive temperature and preparation of medicines: unto whom, that the world might give credit, signes were given, establishing his doctrine: For he hath a famous preparation of great Arcanums, which was not to be confirmed but by an obtainment of healing: And then there have some followed after, who adding to the inventions of, or things found out by Paracelsus, were Illustraters of the Speculative truth being found'; 'Etenim placuit Altissimo, praecursorem, ante Heliam atrium, praemittere, docentem medicaminum crasin, & praeparationes: cui ut fideret mundus, data sunt signa, suam doctrinam stabilientia. Illustris nempe est illi magnorum arcanorum praeparatio, quae non nisi adeptione erat confirmanda. Dein subsecuti sunt, qui Paracelsi inventis addentes, essent repertae veritatis theoricæ illustrationes'.

⁸⁹⁷ On the myth of Elias Artista in Paracelsus and amongst the Paracelsians, see Antoine Faivre, 'Elie Artiste, ou le Messie des Philosophes de la Nature', *Aries* 2:2 (2002), 119-152.

⁸⁹⁸ This idea reflects standard Pauline doctrine, see Rom 5:12-21.

Adam free from Diseases and at length to be taken away without Battle.⁸⁹⁹

Moreover, Van Helmont stated that he preferred the promise of Christ to the pristine status of Adam: ‘I had rather know those things which God hath revealed by his only begotten Son the Saviour of the World, than to have known the faculties of Living Creatures and Herbs with a clear Understanding.’⁹⁰⁰ The universal *scientia* given to Adam is not as valuable, he thought, as the revelation of Christ.

Hence, for Van Helmont human life is a sacred history. By comparison with other authors of sacred histories, like Origen or even Hegel, he was not drawn to speculate on the destiny of humanity or to formulate grand historical visions. His view remains personal and emphasises the journey that each of us undertakes. This journey is illuminated by the promise of regeneration through the aid of Jesus Christ.

4.3.1.4. *Scientia or the Possibility of Knowledge*

In the chapter 4.1 On God and 4.2 On Nature, I have shown that God and Nature have a strong relationship, whereby Nature is permeated by the divine. This view has important consequences for Man’s pursuit of natural knowledge. Since God is incomprehensible, the essence of Nature is, if not unintelligible, at least difficult to comprehend. This is in line with his belief that the essences of things cannot be known. We have already seen that this basic tenet was part of Van Helmont’s extended apophatic belief.⁹⁰¹

However, Van Helmont stops short of complete scepticism about the ability of Man to understand Nature. This conviction is given by reading the Genesis account, where undefiled Adam is asked to name all creatures. Van Helmont hence affirms that Adam, as the image of God, ‘had an intimate, or intuitive knowledge (*scientia*) of [things], which is called the Attainment of Nature’ (*Adeptum naturae*).⁹⁰² Hence, Adam ‘had known the essences and names of living creatures, because he contemplated of

⁸⁹⁹ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 665, ‘Demonstratur thesis’, p. 527: ‘Etenim idcirco status fidelium, etsi per totam vitam, etiam in ipsa morte, sit primitive statu longe aerumnosior; est tamen eo felicius, quanto est maiestate plenius esse similiorem Filio Dei, incarnate, mortuo & glorificato: quam cum Adamo vixisse liberum a morbis, & tandem sublatum absque proelio’.

⁹⁰⁰ Van Helmont, chap. 92, ‘A Position’, p. 660, ‘Thesis’, p. 521: ‘Malim namque scire, quae Deus per unigenitum mundi Salvatorem revelavit, quam novisse claro intellectu animantium & herarum facultates’.

⁹⁰¹ See above, chap. 4.1 On God.

⁹⁰² Van Helmont, chap 101, ‘The Understanding of Adam’, p. 711, ‘Intellectus Adamicus’, p. 561: ‘Adam iusta nomina indebat cunctis animalibus: horumque ideo intimam, sive intuitivam, scientiam habebat, quae Adeptum naturae dicitur.’ This is based on Genesis 2:20.

these things within, in his own divine image'.⁹⁰³ He was, Van Helmont argues, the perfect natural philosopher, having a 'most full knowledge of Herbs, Minerals, yea and of the Stars'.⁹⁰⁴ All these he had known as a privilege of the unencumbered mind.⁹⁰⁵ After the Fall, the only method whereby one can recover this profound comprehension is by restoring the image of God within the soul. This epistemological theory makes knowledge of Nature extremely difficult to attain; in fact only Adepts can reach it.⁹⁰⁶

It is clear that Van Helmont's notion of *scientia* has little in common with modern science. *Scientia* is in fact a form of direct, intimate perception of creatures that is only given to chosen human beings; hence the Baconian ideal of science as a mass enterprise would have made little sense to Van Helmont. *Scientia* is by definition an esoteric pursuit, which few people can attain to. These ideas are clearly drawn from the perspective of alchemy as an arcane subject, where the Philosophers' Stone could only be obtained by a chosen few. Moreover, it betrays Van Helmont continuing indebtedness to Paracelsus, who was the source of the idea of the Adept and adept philosophy, as well as of the concept of *scientia*.⁹⁰⁷ Indeed, Paracelsus held that the perfect *scientia* of Adam could be recovered, albeit through an arduous path.⁹⁰⁸

This exclusivism might give the impression that Van Helmont is barring access to knowledge to all but a chosen few. In fact, he was precisely accused of this during his trial; Van Helmont replied that he was not disparaging all human learning, but that divine illumination gave a higher degree of certainty.⁹⁰⁹ Indeed, for Van Helmont *scientia* is much more than knowledge in an ordinary sense: it is a superior form that includes attainment of the highest secrets of Nature, such as that of long life. Undoubtedly other inferior types of knowledge exist; however, the true *scientia* of Nature is only achievable through alchemy.

⁹⁰³ Van Helmont, chap. 47, 'The Knitting or Conjoyning of the Sensitive Soul and Mind', p. 351, 'Nexus sensitivae & mentis', p. 285: '...Noverat quippe essentias, & nomina animantum: quia Mens, in divina sui imagine, haec intus contemplabatur dum volebat, ipsoque aspect eadem memorabat'; see also chap. 93, 'The Position is Demonstrated', p. 665, 'Demonstratur thesis', p. 527; chap 101, 'The Understanding of Adam', p. 711, 'Intellectus Adamicus', p. 561; chap. 23, 'Nature is Ignorant of Contraries', p. 162, 'Natura contrariorum nescia', p. 132.

⁹⁰⁴ Van Helmont, chap. 101, 'The Understanding of Adam', p. 711, 'Intellectus Adamicus', p. 561: 'Adam...forte pariter herbarum, mineralium, imo & astrorum plenissimam cognitionem habebat.'

⁹⁰⁵ Van Helmont, chap. 101, 'The Understanding of Adam', p. 711, 'Intellectus Adamicus', p. 561.

⁹⁰⁶ It is unsurprising that Van Helmont refers to 'Adeptum naturae' as the knowledge (*scientia*) possessed by Adam before the Fall; the treatise 'The Understanding of Adam' implies that to 'attain' the true knowledge of Nature one must become free from Original Sin.

⁹⁰⁷ See above, under chapter 3.

⁹⁰⁸ Bono, *The Word of God*, pp. 131-134.

⁹⁰⁹ See Harline's useful retelling, in *Miracles at the Jesus Oak*, p. 213.

In this sense, it is revelatory to see that Van Helmont calls only alchemy ‘the Study of Nature’: thus, in his educational reform programme, he argues that students should study Mathematics, Geography, History, Astronomy first, and then ‘come to the Study of Nature’, which means learning ‘to know and separate the first Beginnings of Bodies.’⁹¹⁰ In other words, true knowledge of Nature can never be achieved without the fire.⁹¹¹ In a different treatise, Van Helmont expresses his belief in the *scientia* bestowed by alchemy in even starker terms:

I praise my bountiful God, who hath called me into the Art of the fire, out of the dregs of other professions. For truly, Chymistry hath its principles not gotten by discourses, but those which are known by nature, and evident by fire: and it prepares the understanding to pierce the secrets of nature, and causeth a further searching out in nature, than all other Sciences being put together: and it pierceth even unto the utmost depths of real truth.⁹¹²

In this, the later Van Helmont is being consistent with the views he held throughout his life. In *De magnetica*, he had claimed that the only ‘sons’ of Nature are the alchemists.⁹¹³ In ‘De Spadanis’ and ‘Ad Judicem’, he claims that truth can be elicited by the aid of fire.⁹¹⁴ It is clear from these statements that for Van Helmont alchemy is the queen of the sciences, and the only one that can lead to the true *scientia* of Nature.

Yet for Van Helmont *scientia* cannot be divorced from religion. We have seen that Van Helmont’s idea of the ‘Adept’ retained a strong sacramental inclination. Moreover, the pursuit of true knowledge cannot be dismissed as intertwined with a vague ‘spiritual’ feeling. In Van Helmont’s mind, true *scientia* leads to the one true religion, that of Christianity. That is why, in the context of criticising the Greek ideas of

⁹¹⁰ Van Helmont, chap. 7, ‘The Ignorant Natural Philosophy of Aristotle and Galen’, p. 45, ‘Physica Aristotelis & Galeni ignara’, p. 40: ‘Dein accedant ad naturae stadium, discant prima corporum initia noscere, & separare’. For Van Helmont’s educational reform programme, see also Allen Debus, *Science and Education in the Seventeenth Century: The Webster-Ward Debate* (New York, NY: American Elsevier, 1970), pp. 27-29.

⁹¹¹ Van Helmont, chap. 7, ‘The Ignorant Natural Philosophy of Aristotle and Galen’, p. 45, ‘Physica Aristotelis & Galeni ignara’, p. 40.

⁹¹² Van Helmont, chap. 59, ‘A Modern Pharmacopolion and Dispensatory’, p. 462, ‘Pharmacopolium ac Dispensatorium modernorum’, p. 371: ‘Laudo benignum mihi Deum, qui me in Pyrotechnia vocavit, extra aliarum professionum faciem. Siquidem Chymia principia habet non logismis parta: sed quae per naturam sunt cognita, & per ignem conspicua: preparatque Intellectum ad penetrandum occulta naturae, ponitque investigationem in natura ulteriorem, quam aliae scientiae omnes simul, & penetrat usque ad ultimas profunditates veritatis realis.’

⁹¹³ Van Helmont, chap. 112, ‘Of the Magnetick or Attractive Curing of Wounds’, p. 761, ‘De magnetica vulnerum curatione’, p. 596.

⁹¹⁴ Van Helmont, ‘De Spadanis fontibus’, chap 100, ‘A Paradox of Supplies’, p. 706, ‘Supplementorum Paradoxum numero criticum’, p. 558; Broeckx, ‘Van Helmont: Ad Judicem’, pp. 116-117.

nature, Van Helmont maintains that the art of the fire, *Pyrotechnia*, is free of pagan concepts: ‘for as many as have set upon Philosophy without the art of the fire, have been hitherto deluded with Paganish Institutions.’⁹¹⁵ We have seen in the section On God (4.1.4.3. ‘Alchemy and Christian Theology’) that Van Helmont advocated an important ‘didactic’ role for alchemy as a way to the true religion of Christianity.⁹¹⁶

Such beliefs led Van Helmont to reject the ‘science of appearances’ as was being formulated by sceptics. He would have disagreed with his friend Gassendi on the latter’s Pyrrhonian denial of *scientia* in *Exercitationes*.⁹¹⁷ Van Helmont held a perspective that there is such thing as *scientia* which reaches beyond appearances to the essences; however, the interior of the essences cannot be grasped. This rather unusual view stayed well away from the extremes of Pyrrhonian denial of *scientia* and a belief in absolute *scientia*; it also went further than Mersenne’s and later Gassendi’s belief that we can only know the exterior effects of things.⁹¹⁸

4.3.2. Duumvirate: the Structure of the Soul

4.3.2.1. The Mind

For Van Helmont, the mind (*mens*) is fundamentally an ‘immortal substance’.⁹¹⁹ St Augustine, to whom Van Helmont refers in connection with the doctrine, advocated the notion of the soul as an incorporeal and immortal substance and affirmed that there is nothing closer to God than the mind, or rational soul.⁹²⁰ In the Renaissance, Marsilio Ficino dedicated no less than three books of his *Theologia Platonica* to show that the Mind is an immortal substance.⁹²¹

⁹¹⁵ Van Helmont, chap. 18, ‘The Fiction of Elementary Complexions and Mixtures’, p. 110, ‘Complexionum atque mitionum’, p. 89: ‘quotquot sine Pyrotechnia, Philosophiam aggressae, paganis hactenus institutis fuere delusae’.

⁹¹⁶ See above, chap. 4.1.

⁹¹⁷ For Gassendi’s point of view, see Popkin, *History of Skepticism*, pp. 102-103.

⁹¹⁸ Popkin, *History of Skepticism*, pp. 137, 141-145. Popkin does not address Van Helmont’s mitigated scepticism.

⁹¹⁹ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 21, ‘Venatio scientiarum’, p. 22, also chap. 46, ‘Of the Immortality of Our Soul’, p. 350, ‘De nostra animae immortalitate’, p. 284.

⁹²⁰ St Augustine, *The City of God*, 11:26; see also Roland Teske, ‘Augustine’s Theory of the Soul’, in *The Cambridge Companion to Augustine*, ed. by Eleonore Stump and Norman Kretzmann (Cambridge: Cambridge University Press, 2006), pp. 116-124 (p. 116); Van Helmont refers to St Augustine in chap. 47, ‘The Distinction of the Mind from the Sensitive Soul’, p. 345, ‘Distinctio mentis ab sensitiva anima’, p. 280.

⁹²¹ Kristeller, *The Philosophy of Marsilio Ficino*, p. 326.

At the same time the mind is also a created being, so it should not be considered as part of God. Van Helmont explicitly rejects the Platonic views that consider the human soul as being a part of divinity, because, he argues, a part of the infinite would be an infinite in itself, hence this would imply that there are at least two co-equal Gods, God the Creator and the human mind, which is both an absolute heresy and a philosophical absurdity.⁹²² Hence, the human mind is created out of nothing, rather than divided from God: 'it voluntarily flowed forth of nothing, and had made itself otherwise than before'.⁹²³

Furthermore, Van Helmont affirms that the mind is completely dependent for its existence and preservation upon God; in this sense, it is a free gift (*donum*) of God.⁹²⁴ In this entire argument, Van Helmont proves thoroughly Augustinian; for the African Father had similarly rejected the idea that the soul is divine.⁹²⁵

Having established that the mind is inferior to God as a created substance, Van Helmont proceeds in affirming the privileged relationship between *mens* and God through the former's attribute as *imago Dei*. It has already been noted above that the idea of Man as *imago Dei* was a mainstay of Christian thought, but Van Helmont went further to uphold the concept that the *imago Dei* is not reflected in the entire man, but only in the mind.⁹²⁶ This was by no means an unorthodox tenet; a strong Christian tradition, hailing from St Paul, maintained that the image of God was fundamentally in the intellect.⁹²⁷

Van Helmont goes further in his analysis, vacillating between conceiving the mind as the Image of God or after the Image of God. Traditional orthodox discourse presented the human being as being constituted after the Image rather than as the Image itself; usually the Image was conceived as being God the Son or sometimes the Holy Spirit.⁹²⁸ Yet some medieval theologians, particularly those pertaining to German

⁹²² Van Helmont, chap. 35, 'Image of the Mind', p. 264, 'Imago mentis', p. 214.

⁹²³ Ibid: 'Ergo ex nihilo sponte effluxit, seseque alias fecisset antequam fuit'.

⁹²⁴ Van Helmont, chap. 35, 'Image of the Mind', p. 264, 'Imago mentis', p. 214: 'Spontequ in nihilum mens humana laberetur, unde incepit rediret, ac dissolveretur iterum: nisi per divinam bonitatem in esse conservaretur. Habetque mens permanentiam aeternam deinceps, non a sui esse: se dab essential aeternitatis, sibi gratis donatae, & conservatae'.

⁹²⁵ See Augustine, *Literal Meaning of the Genesis*, 7.2 and 7.3. for reasons why the soul is not part of God. For further comments, see Teske, 'Augustine's Theory of the Soul', p. 117.

⁹²⁶ Van Helmont, chap. 35, 'Image of the Mind', p. 270, 'Imago mentis', p. 219.

⁹²⁷ This belief was already present in St Paul. On the theological equation of *imago Dei* and intellect, see McGinn, *The Harvest of Mysticism*, p. 146.

⁹²⁸ St Paul believed that God the Son was the true *imago Dei*, 2 Cor 4:4, Col. 1:15. For the tradition of God the Son and Holy Spirit as *imago Dei*, see Robert Javelet, *Image et ressemblance au douzieme siècle*, 2 vols (Strasbourg: Université de Strasbourg, 1967), I, 72-91.

mysticism such as Meister Eckhart and Johannes Tauler, did propose that the deepest part of man was the true image of God.⁹²⁹

On his part, Van Helmont sometimes upholds the traditional doctrine, such as when he states that ‘man alone was made after the Image of God’ and that the Image of God does ‘immediately, incomprehensibly and essentially consist and forme the minde’.⁹³⁰ He also maintains that ‘the mind is a Spiritual substance [...] made after the Image or likeness of God, immediately by God himself.’⁹³¹ In this perspective, Van Helmont views the Image of God as the Logos-Word, or the Holy Spirit.⁹³² He equally distinguishes between the *imago Dei* and the mind when he states that ‘truly the Image of God is intimate only with the minde, and is as proper to it, as its very own essence is unto itself’.⁹³³

At the same time, these quotations betray the fact that the difference was so slight in Van Helmont’s mind that the boundary between *imago Dei* and the mind was often indistinct. Indeed, there are several instances where Van Helmont straightforwardly affirms that mind actually is the ‘glorious Image of God’.⁹³⁴ Thus, he states that man is ‘the immediate and true Image of God’, ‘the primary Image of God is in the minde’; the intellect is ‘the pure Essence of the Image of God’.⁹³⁵

Such a perspective has important implications regarding the understanding of the mind. Van Helmont develops a negative anthropology of the intellect in the style of St Gregory of Nyssa, Meister Eckhart and John Scotus Erigena.⁹³⁶ He affirms that, since God is incomprehensible in Himself, the mind also shares His apophatic quality: ‘the

⁹²⁹ The equation of *imago Dei* and man seems to pertain to a less orthodox view of the relationship between man and God. For instance, Meister Eckhart believed that man is *imago Dei* in the sense that the divine and human intellect is the same; as McGinn explains, *The Harvest of Mysticism*, p. 147: ‘Because God’s ground and the soul’s ground is one ground, the human intellect is not other than the Only-Begotten Image in the Trinity’. Yet even his view was nuanced.

⁹³⁰ Van Helmont, chap. 35, ‘Image of the Mind’, p.270, ‘Imago mentis’, p. 219: ‘Siquidem mens est unus actus...in quo, proxime Dei imago incomprehensibilis incomprehensibiliter essentialiterque consistit, metemque format’. See also, chap. 3, ‘A Hunting or Searching Out of Sciences’, p. 21, ‘Venatio scientiarum’, p. 22; chap. 93, ‘The Position is Demonstrated’, p. 662 and chap. 101, ‘The Understanding of Adam’, p. 713, ‘Intellectus Adamicus’, p. 562.

⁹³¹ Van Helmont, chap. 44, ‘A Treatise on the Soul’, p. 343, ‘Tractatus de Anima’, p. 278: ‘Videlicet quod mens sit substantia spiritualis, incorporaliter etiam per se subsistens, immortalis, vivens, ad imaginem Dei condita, immediate per ipsum Deum’.

⁹³² Van Helmont, chap. 3, ‘A Hunting or Searching Out of Sciences’, p. 21, ‘Venatio scientiarum’, p. 22; chap. 93, ‘The Position is Demonstrated’, p. 686, ‘Demonstratur thesis’, p. 534.

⁹³³ Van Helmont, chap. 35, ‘Image of the Mind’, p. 268, ‘Imago mentis’, p. 217.

⁹³⁴ Van Helmont, chap. 35, ‘Image of the Mind’, p.267, ‘Imago mentis’, p. 216; see also chap. 47, ‘The Knitting or Conjoyning of the Sensitive Soul and the Mind’, p. 354; ‘Nexus sensitivae & mentis’, p. 286.

⁹³⁵ Van Helmont, chap. 93, ‘The Position is Demonstrated’, pp. 662-663; ‘Demonstratur thesis’, p. 523; ‘chap. 35, The Image of the Mind’, p. 270; ‘Imago mentis’, p. 220: ‘primaria imago Dei est in mente’.

⁹³⁶ Giulio Maspero, *Trinity and Man: Gregory of Nyssa’s Ad Ablabium* (Leiden: Brill, 2007), pp. 113-114; Bernard McGinn, *Growth of Mysticism: Gregory the Great through the Twelfth Century* (New York, NY: Crossroads Publishing, 1994), pp. 104-106; McGinn, *Harvest of Mysticism*, p. 121.

very minde is also wholly unknown to itself'.⁹³⁷ Thus, being the similitude of God means that the mind cannot be expressed in words or imagined in any shape.⁹³⁸ We can only know things about the mind as are revealed, rather than directly known:

whatsoever things we have by faith concerning the minde of man, are almost explained or declared; and there is nothing at all, which can bring us into a manifest knowing thereof: wherefore, whatsoever we search into concerning it, is hitherto involved in darkness, and plainly unknown.⁹³⁹

Hence, just as in the case of God, we only know the mind by its works, rather than in its essence.⁹⁴⁰

As the image of God, the mind is also a fundamentally active entity that reflects the unceasing activity of God. Like Him, it is capable of creating something out of nothing: an ambiguous example Van Helmont gives is that of the pregnant woman whose craving for cherry can project the cherry's qualities on the foetus.⁹⁴¹ Thus, the mind continuously 'operates' within us, insensibly or unconsciously. Another example he gives is that of the act of confession; even though we might not feel remorse or shame for our sins while we confess, it is not our conscious self, but the inner mind that confesses within us.⁹⁴²

God is fundamentally simple and unique, so the mind as image borrows those qualities as well.⁹⁴³ Thus, the mind is 'a Spirit, beloved of God, homogeneous, simple, immortal, created into the Image of God, one only Being, whereto death adds nothing, or takes nothing from it.'⁹⁴⁴ To this, he later adds another definition: 'the minde is one pure, simple, formal, homogeneous, undivided, and immortal act, wherein the

⁹³⁷ Van Helmont, chap. 35, 'Image of the Mind', p. 270, 'Imago mentis', p. 220: 'Proin nempe ipsa mens & sibi totaliter ignota'.

⁹³⁸ Van Helmont, chap. 35, 'Image of the Mind', p. 270, 'Imago mentis', p. 220: 'Quae imago nec corde cogitari, nec verbis in hac vita exprimi potest, quia Dei similitudinem refert'.

⁹³⁹ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 310, 'Mentis complementum', p. 250: 'utpote quibus duobus verbis fere explicantur, quaecunque de humana Mente ex fide habemus; nihilque est prorsus, quod nos in ejus apertam cognitionem deducat. Quapropter quicquid de illa scrutamur, adhuc obvolutum est tenebris, ac plane ignotum'.

⁹⁴⁰ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 310, 'Mentis complementum', p. 250.

⁹⁴¹ Van Helmont, chap. 47, 'The Knitting or Conjoyning of the Sensitive Soul and the Mind', p. 354, 'Nexus sensitivae & mentis', p. 287. Strictly speaking, this projection is carried out by the sensitive soul within the woman, but the result can only be accomplished because the mind yields its powers to the soul after the Fall. Van Helmont points out that animals cannot achieve the same result due to their lack of mind.

⁹⁴² Van Helmont, chap. 35, 'Image of the Mind', p. 264, 'Imago mentis', p. 214.

⁹⁴³ Here Van Helmont was probably inspired by Pseudo-Dionysius primarily, but also St Thomas Aquinas, who insisted on the absolute simplicity of the divine nature. See Bernard McGinn, *The Harvest of Mysticism*, p. 28.

⁹⁴⁴ Van Helmont, chap. 35, 'Image of the Mind', p. 267, 'Imago mentis', p. 216: 'Sat est, Quod mens sit spiritus, Deo dilectus, homogeneus, simplex, immortalis, in Imaginem Dei creatus, ens unicum, cui mors nil addit, au tab eo aufert'.

incomprehensible Image of God doth immediately, incomprehensibly and essentially consist and forme the minde'.⁹⁴⁵

Giglioni has also rightfully emphasised the importance of unity for Van Helmont, pointing out that it goes beyond St Augustine, who posited a threefold structure of the mind.⁹⁴⁶ By formally rejecting the Augustinian doctrine that equated the image of God with the triad of memory, intellect and will,⁹⁴⁷ Van Helmont probably draws his inspiration from Johann Tauler, who maintained that the Augustinian doctrine, while not incorrect, is insufficient to understand the dignity of man's soul as the Image of God.⁹⁴⁸

Nevertheless, it must be noted that Van Helmont's criticism relates mainly to the status of these 'parts' of the mind rather than to their very existence. For him, it seems vital to distinguish between the essence (*essentia*) of the mind, which is simple and unitary, and the Augustinian triad, which represent powers (*potestates*) of the mind.⁹⁴⁹ In Van Helmont's vision, these powers do not represent an intrinsic and eternal structure of the mind, but are simply instruments the mind uses while living in the fallen state.⁹⁵⁰ In this sense, the Aristotelian difference between substance and accident appears useful to Van Helmont, who shows that the 'powers' can only be accidents.⁹⁵¹

To further his rejection of the widely accepted Augustinian triad, Van Helmont analyses the nature of the mind after death, when it returns to its *a priori* unity. He observes that at this point the function of memory becomes redundant, since there is no more time and the Soul is 'beholding and enjoying of naked truth'.⁹⁵² Similarly, the will also disappears, because in heaven one cannot will anything except what God wills, hence this power also becomes obliterated.⁹⁵³

Having rejected the existence of the Augustinian triad within the intellect, Van Helmont goes on to posit his own version of a ternary structure of the mind. Its substance includes, within itself, understanding (*intellectus*), will (*voluntas*) and love

⁹⁴⁵ Van Helmont, chap. 35, 'Image of the Mind', p. 270, 'Imago mentis', p. 219: 'Siquidem mens est unus actus, purus, simplex, formalis, homogeneus, indivisus, & immortalis, in quo, proxime Dei imago incomprehensibilis incomprehensibiliter essentialiterque consistit, metemque format'.

⁹⁴⁶ Giglioni, *Immaginazione e malattia*, p. 172.

⁹⁴⁷ St Augustine, *On the Trinity*, in *The Works of Saint Augustine*, ed. by J.E. Rotelle (New York, NY: New City Press, 1991), I.5, 15:21:41.

⁹⁴⁸ Tauler also differs from St Thomas Aquinas in this respect. For Tauler's argument see McGinn, *The Harvest of Mysticism*, p. 245.

⁹⁴⁹ Van Helmont, chap. 35, 'Image of the Mind', pp. 267-268, 'Imago mentis', pp. 216-217.

⁹⁵⁰ Van Helmont, chap. 35, 'Image of the Mind', p. 267, 'Imago mentis', p. 216.

⁹⁵¹ Van Helmont, chap. 35, 'Image of the Mind', p. 266, 'Imago mentis', p. 216.

⁹⁵² Van Helmont, chap. 35, 'Image of the Mind', p. 267, 'Imago mentis', p. 216: 'Ut scilicet nuda veritatis aspectu, ac fruitione, sine occasu, defatigatione, atque defectu, stat anima extra memoranda necessitates'.

⁹⁵³ Van Helmont, chap. 35, 'Image of the Mind', p. 267, 'Imago mentis', p. 216.

(*amor*).⁹⁵⁴ These three, he argues, should not be seen as separating the unified essence of the mind, but being united with it: the ‘three, under the one only and indivisible substance of the Soul, are co-melted into unity.’⁹⁵⁵ Van Helmont describes them as ‘Titles’ (*tituli*) of the essence, but not distinct from it.⁹⁵⁶

Thus, what Van Helmont seeks to emphasise is that these ‘Titles’ manifest themselves together, without any separation or difference, in the intellectual act: ‘the Intellect doth understand, is intent upon God, and doth love him with all the minde, with an undivided act of love, and one only act of complacency or desire’.⁹⁵⁷ Hence, will, love and understanding cannot manifest themselves individually as ‘powers’, but are unified in act and substance.

The understanding [*intellectus*] is that attribute of the mind that can achieve the contemplation of God not by active search, but passively, being penetrated by the supreme light: ‘The intellect being free [...] transforms itself, through well-pleasing and complacent study, into the unity of light, which penetrates it and through penetration beatifies it.’⁹⁵⁸ The intellect is so fundamental to the mind that in a sense it is the same as the mind.⁹⁵⁹

In its turn, the will is ‘co-melted and united’ with the understanding.⁹⁶⁰ The ‘intellective will’ is a superior essence completely unlike the free will of man or the will of the flesh.⁹⁶¹ It never separates from intellect or love, nor does it will anything different than God: it is in effect, an image of the will of God. In addition, there is a third faculty, ‘which for want of a true word, I call Love (*Amor*), or a perpetual desire (*desiderium perpetuum*)’.⁹⁶² This, he clarifies, is not fleshly love or sexual passion, but a ‘ruling essence, and a glorifying act’.⁹⁶³ He further postulates that, in the mind, love is

⁹⁵⁴ Van Helmont, chap. 35, ‘Image of the Mind’, pp. 268-269, ‘Imago mentis’, p. 217.

⁹⁵⁵ Van Helmont, chap. 35, ‘Image of the Mind’, p. 268, ‘Imago mentis’, p. 217: ‘Quae tria, sub unica animae & indivisibili substantia, in unitatem colliquata sunt’.

⁹⁵⁶ Van Helmont, chap. 35, ‘Image of the Mind’, p. 268, ‘Imago mentis’, p. 217.

⁹⁵⁷ Van Helmont, chap. 35, ‘Image of the Mind’, p. 268, ‘Imago mentis’, pp. 217-218: ‘Eo quod intellectus Deum intelligit, intendit, ac omni mente amat, indiviso amoris unicoque complacentiae, seu desiderii actu, in omnimoda simplicitate sui’.

⁹⁵⁸ Van Helmont, chap 35, ‘Image of the Mind’, p. 273, ‘Imago mentis’, p. 222.

⁹⁵⁹ Van Helmont, chap 35, ‘Image of the Mind’, p. 270, ‘Imago mentis’, p. 219: ‘...Ejusque intellectus est lux mentis, ut ipsa mens sit merus intellectus lucidus’.

⁹⁶⁰ Van Helmont, chap 35, ‘Image of the Mind’, p. 268, ‘Imago mentis’, p. 217: ‘Intellectus etenim habet sibi coaequalem & substantialiter colliquatam & unitam voluntatem intellectivam, non quidem quae sit potestas vel accidens’.

⁹⁶¹ Van Helmont, chap 35, ‘Image of the Mind’, p. 268, ‘Imago mentis’, p. 217: ‘Voluntas ergo & amor hujus loci, nequicquam commune habent, cum voluntate viri, aut carnis’.

⁹⁶² Van Helmont, chap 35, ‘Image of the Mind’, p. 268, ‘Imago mentis’, p. 217: ‘In mente pariter est tertium, quod defectu ethymi, dico Amorem, sive desiderium perpetuum’.

⁹⁶³ Van Helmont, chap 35, ‘Image of the Mind’, p. 268, ‘Imago mentis’, p. 217: ‘Nec demum amor ille, est passio: sed essential dominans, & actus glorificans’.

not substantially different from desire, but occurs together with it.⁹⁶⁴ Moreover, desire never ceases, despite reaching its object.⁹⁶⁵ Thus, in Paradise the mind of man remains in a certain tension against the surrounding objects, a state which is not a 'passion'.⁹⁶⁶ Van Helmont seems to posit this idea because it seems to him that full satisfaction would bring about a certain insensibility or boredom, which does not fit the idea of heaven.⁹⁶⁷

The model of Van Helmont's intellectual triad is not hard to identify: the divine Trinity itself. Just like the Trinity, Van Helmont's triad is one substance (the *mens*) and three hypostases (will, understanding, and love), without ever losing their unity.⁹⁶⁸ The intellect resembles God the Father, with the will being like God the Son. Love, as the Holy Spirit in the Catholic scheme, originates from both of them.⁹⁶⁹ Hence, although Van Helmont seeks to distance himself from St Augustine, he remains Augustinian in positing a Trinitarian resemblance within the human soul.

4.3.2.2. *Sensitive Soul*

The nature of the mind as *imago Dei* justifies the privileged status of man in the economy of the universe. Nevertheless, as already mentioned, this perspective is prelapsarian and hence nuanced by the drama of the Fall. After Adam and Eve's sin, the mind was no longer able to govern the body and a third element was introduced: the sensitive soul (*anima sensitiva*), which assumed the offices of government from the retreating mind.

Although Van Helmont's concept of sensitive soul reflects Aristotelian terminology, it is fundamentally drawn from the Paulinian-Augustinian inner-outer man dichotomy. This is clear by comparing his thought with that of Jesuit Scholastics, who argued that the intellectual soul incorporates the sensitive soul.⁹⁷⁰ This view, which was perhaps more congruent with the doctrine of the absolute unity of the soul, was rejected by Van Helmont. For him, the sensitive soul is an unfortunate intrusion between the

⁹⁶⁴ Van Helmont, chap 35, 'Image of the Mind', p. 269, 'Imago mentis', p. 218.

⁹⁶⁵ Van Helmont, chap 35, 'Image of the Mind', p. 270, 'Imago mentis', p. 219: 'Et licet in Coelis sit desiderabilium plena satietas, fruitioque perpetua: non cessat tamen proinde mentis desiderium, quod est stadium complacentiae, nec hoc passionem menti infert, plusquam ipsa Charitas'.

⁹⁶⁶ Van Helmont, chap 35, 'Image of the Mind', p. 270, 'Imago mentis', p. 219.

⁹⁶⁷ Van Helmont, chap 35, 'Image of the Mind', p. 270, 'Imago mentis', p. 219.

⁹⁶⁸ For a presentation of the orthodox concept of God as one substance and three hypostases, see Lossky, *The Mystical Theology*, pp. 41-61.

⁹⁶⁹ Van Helmont, chap. 40, 'The Completing or Perfecting of the Mind', p. 311, 'Mentis complementum', p. 251.

⁹⁷⁰ Des Chene, *Life's Form*, p. 164.

mind and the body. Implicitly, in doing so Van Helmont attacks the standard Aristotelian account of man as rational animal; clearly, the idea of a pre-lapsarian man that has no sensitive soul makes no sense in the context of Aristotelianism.⁹⁷¹ One can argue that it also poses serious difficulties to any philosophical inquiry, since how could a purely intellectual soul connect with the body?⁹⁷² To his credit, Van Helmont attempted to answer it thus: the prelapsarian mind governed the body by means of the *Archeus*. As we have seen in 4.2. On Nature, the *Archeus* is seen as a spirit that is also the instrument of the soul. The scheme is clearly triadic, with the soul governing the body by means of an intermediary spiritual power.

As Van Helmont makes clear, the sensitive soul was an error, or a consequence of Adam's lapse. The middle Van Helmont had named the sensitive soul by the evocative term 'shadow'(*umbra*).⁹⁷³ It is hence a projection of the body and a dark companion of the divine light of the *mens*. Yet, given Original Sin, the sensitive soul is also necessary as a 'vicar' of the mind, performing the offices initially entrusted to the *mens*.⁹⁷⁴ Superseded by the sensitive soul, the mind becomes drowsy, or sleepy, and retires into the 'innermost Chamber of the mortal Soul'.⁹⁷⁵ It becomes enclosed within itself so as to avoid being tainted by its associated with the *anima sensitiva*.⁹⁷⁶

Yet the mind does not completely desist from participating in the life of the human. It does not retreat into a Platonic realm of intangible Ideas, but remains in close contact with the sensitive soul. Not only does it generate human life, but ensures its survival by projecting an unceasing vital beam upon it.⁹⁷⁷ In line with Van Helmont's light theory, the higher light of the mind penetrates that of the sensitive soul and endows it with its qualities.⁹⁷⁸ The image of light penetrating light and forming together one solid beam also illustrates Van Helmont's view that the mind is so closely intertwined

⁹⁷¹ See the standard Aristotelian account rendered in Des Chene, *Life's Form*, pp. 155-158.

⁹⁷² Jesuit Scholastics rejected the direct union of the intellective soul with matter as being absurd without the 'middle nature' of the sensitive soul; for this and Descartes's conundrum, see Des Chene, *Life's Form*, pp. 168-169, 192.

⁹⁷³ '14 Février 1631', p. 100: 'Porro infra animam est spiritus animalis seu vitalis, qui est animae velut vinculum, imo eandem, ut umbra corpus exprimit (vocabo deinceps *umbram*)'.

⁹⁷⁴ Van Helmont, chap. 21, 'The Birth or Original of Forms', p. 145, 'Ortus formarum', p. 118; also chap. 1, 'Author's Confession', p. 9, 'Confessio authoris', p. 12.

⁹⁷⁵ Van Helmont, chap. 47, 'The Knitting or Conjoyning of the Sensitive Soul and the Mind', p. 351, 'Nexus sensitivae & mentis', p. 285; chap. 93, 'The Position is Demonstrated', p. 665; 'Demonstratur thesis', p. 527.

⁹⁷⁶ Van Helmont, chap. 101, 'The Understanding of Adam', p. 712, 'Intellectus Adamicus', p. 561.

⁹⁷⁷ Van Helmont, chap. 47, 'The Knitting or Conjoyning of the Sensitive Soul and the Mind', p. 353, 'Nexus sensitivae & mentis', p. 286.

⁹⁷⁸ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 311, 'Mentis complementum', p. 251.

with the sensitive soul that it is difficult to differentiate the activities of one from the other.⁹⁷⁹

Thus, the mind inhabits the body as much as the sensitive soul, forming together a 'duumvirate'.⁹⁸⁰ This dual governorship reflects the middle Van Helmont's division of man into inner and outer man, and expresses very effectively the tension that exists between the immortal and mortal soul. Hence the mind, hindered by the sensitive soul, is unable to 'freely exercise its Offices' and is forced to 'suffer against its will'.⁹⁸¹

Van Helmont feels that he has to place the duumvirate in a precise location in the human body. This decision reflects a medical Platonic-Galenic bias, according to which souls were found in specific organs; this tradition was upheld by Paracelsus as well.⁹⁸² Van Helmont disagrees with the Scholastic view that the entire soul is in the entire body.⁹⁸³ Accordingly, he chooses the location of the duumvirate in the stomach, a fact which shows the supremacy of digestion, viewed in alchemical terms in his thought.⁹⁸⁴

As an inferior entity to the mind, the sensitive soul imitates the former's nature just like the mind imitates God.⁹⁸⁵ Yet it can do so only partially: Van Helmont portrays the sensitive soul as a quasi-chaotic state that bears only a vague resemblance to that of the mind. Thus, the sensitive soul 'copies' the mind's unity of understanding, will and love by producing its own triad, which is respectively imagination (or reason), will and love (or desire).⁹⁸⁶ Yet, while in the mind the intellect, will and love are united and act together, in the sensitive soul

we understand things that are not desired, we also desire things we would not, nor do plainly know: Lastly, we will...those things which we do not desire, but we would not have it so. From whence it happens, that desire

⁹⁷⁹ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 310, 'Mentis complementum', p. 251.

⁹⁸⁰ Van Helmont, chap. 43, 'Duumvirate', p. 337, 'Duumviratus', p. 276.

⁹⁸¹ Van Helmont, chap. 47, 'The Knitting or Conjoyning of the Sensitive Soul and the Mind', pp. 353-354, 'Nexus sensitivae & mentis', p. 286.

⁹⁸² On this tradition, see Hasse, 'Plato Arabico-Latinus', pp. 41-42.

⁹⁸³ Des Chene, *Life's Form*, pp. 191-192. Van Helmont appears to contradict St Augustine in this, since the latter maintained this principle.

⁹⁸⁴ For more on this see above 4.2. On Nature.

⁹⁸⁵ Here again Van Helmont expresses the belief in the Pseudo-Dionysian concept of hierarchy; Pseudo-Dionysius, 'The Celestial Hierarchy', pp. 153-155.

⁹⁸⁶ See Van Helmont, chap. 35, 'Image of the Mind', p. 269, 'Imago mentis', p. 218. The belief that in the fallen soul understanding is the same as imagination is linked with Van Helmont's belief that we cannot comprehend anything except by images and figures.

doth overcome the will, and likewise the will doth compel the desire, and so that there are mutual and fighting Commands.⁹⁸⁷

Such a chaotic state reflects Van Helmont's belief in the fallen state as by definition anarchical and disordered.⁹⁸⁸ In this sense, Original Sin is fundamentally a disintegration of the unity of the substance of the mind into three accidents, which bear a vague resemblance to their intellectual archetype.

Yet no faculty of the sensitive soul illustrates its inferior state quite as clearly as that of reason. Van Helmont is aware of the widespread belief that the mind was represented chiefly by the rational faculty, an idea which he finds preposterous.⁹⁸⁹ By contrast, he expels reason from the faculties of the mind (intellect, love and will), and places the rational capacity in the fallen sensitive soul. It is, as Giglioni has pointed out, a product of imagination rather than a stand-alone faculty.⁹⁹⁰

Henceforth, Van Helmont devotes his treatise 'The Hunting, or Searching Out of the Sciences' ('Venatio scientiarum') to refuting the idea that reason is the most important faculty of the soul.⁹⁹¹ He makes it clear that reason, for him, is nothing but logic and syllogism, as in the Aristotelian tradition.⁹⁹² Reason, he says, is a 'thick and dark little Cloud' which beguiles men into thinking that without her they would fall in the allurements of the senses.⁹⁹³ It is a 'pleasing flatteress and crafty Seducer' and a 'Parasite' which drives souls 'mad' and 'enslaves' them to it.⁹⁹⁴

Van Helmont further points out why he thinks reason is inadequate. For one, it offers no certainty: if ten witty men are brought together, they will all differ in their position, each being 'deluded by his own reason'.⁹⁹⁵ Reason 'divides' rather than

⁹⁸⁷ Van Helmont, chap. 35, 'Image of the Mind', p. 270, 'Imago mentis', p. 219: 'intelligimus non desiderata, desideramus quoque quae nolumus, nec plane noscimus. Unde contingit, desiderium superare voluntatem, ac vicissim voluntatem cogere desiderium: adeoque esse mutual atque pugnancia imperia'.

⁹⁸⁸ Van Helmont, chap. 35, 'Image of the Mind', p. 270, 'Imago mentis', p. 219.

⁹⁸⁹ See for instance Meister Eckhart, where he states that the image of God was 'the intellect that pertains to the superior reason'; 'Liber Parabolorum Genesis', in *Meister Eckhart: Die deutschen und lateinischen Werke herausgegeben im Auftrag der deutschen Forschungsgemeinschaft* (Stuttgart: Kohlhammer, 1936), p.153 (LW 1:623.11-12).

⁹⁹⁰ Giglioni, *Immaginazione e malattia*, pp. 29-30.

⁹⁹¹ Scholars have focused extensively on this treatise, which is probably one of the best known ones of Van Helmont. See Pagel, *Joan Baptista Van Helmont*, pp. 19-34; Giglioni, *Immaginazione e malattia*, pp. 26-35; Heinecke, *Wissenschaft und Mystik bei J. B. Van Helmont*, pp. 53-63. While it is a very important treatise of Van Helmont, exaggerated emphasis on it can have the effect of obscuring some of his other, equally important ideas.

⁹⁹² Van Helmont, chap. 6, 'Logick is Unprofitable', p. 38, 'Logica inutilis', pp. 34-35.

⁹⁹³ Van Helmont, chap. 3, 'The Hunting or Searching Out of the Sciences', p. 16, 'Venatio scientiarum', p. 17: 'Ratio semel se ostendit, in quadam vision, animae meae, in forma spissioris, & caliginosae nebulae'.

⁹⁹⁴ Van Helmont, chap. 3, 'The Hunting or Searching Out of the Sciences', pp. 16-17, 'Venatio scientiarum', pp. 17-18.

⁹⁹⁵ Van Helmont, chap. 3, 'The Hunting or Searching Out of the Sciences', p. 18, 'Venatio scientiarum', p. 19.

‘unites’, hence belonging to the multiple senses rather than the one true understanding.⁹⁹⁶ Further, it is not useful in natural inquiry, because it bears no real relationship with the object analysed.⁹⁹⁷ In fact, it is wholly unsuitable to nature, since Nature is harmonious, while reason sows discord, contention and misunderstandings.⁹⁹⁸ Hence, reason is ‘discursive’, ‘wordy’ and ‘unstable’.⁹⁹⁹ He also takes issue with the Platonic concept of *anamnesis*, rejecting the idea that the practice of syllogism helps in the process of remembrance. He does not believe that science could be obtained by memory, ‘as if all knowledge of all things had fore-existed in us’; instead, knowledge is something that must be obtained in the present, immediately, by the exercise of the understanding.¹⁰⁰⁰

Furthermore, Van Helmont is eager to differentiate between reason and the intellect. The former is a cumulative process of thought, while understanding is an immediate revelation of the truth.¹⁰⁰¹ Moreover, Van Helmont observes, we must realise that reason is only needed during this lifetime, but not in the next; because then the mind will know everything at once, without needing premises, syllogisms and disputations.¹⁰⁰² In fact, Van Helmont affirms, reason is the essence of the Tree of Knowledge of Good and Evil, which has caused our downfall.¹⁰⁰³ He hence concludes that reason generates only a ‘dim or dark knowledge’ which is not illuminated by God.¹⁰⁰⁴ It pertains to the inferior sensitive soul, which is common to man and animals alike.¹⁰⁰⁵

Van Helmont’s *Venatio scientiarum* belongs to a special strand of thought, which I have termed the ‘illuminationist tradition’, which alchemical philosophy embraced.¹⁰⁰⁶ However, as Pagel has already pointed out, Van Helmont’s speculation on reason is here closely styled on Nicholas of Cusa’s treatise, *De venatione*

⁹⁹⁶ Van Helmont, chap. 6, ‘Logick is Unprofitable’, p. 38, ‘Logica inutilis’, p. 35

⁹⁹⁷ Van Helmont, chap. 6, ‘Logick is Unprofitable’, p. 38, ‘Logica inutilis’, p. 35.

⁹⁹⁸ Van Helmont, chap. 6, ‘Logick is Unprofitable’, p.38, ‘Logica inutilis’, p. 35.

⁹⁹⁹ Van Helmont, chap. 6, ‘Logick is Unprofitable’, p. 38, ‘Logica inutilis’, p. 35.

¹⁰⁰⁰ Van Helmont, chap. 6, ‘Logick is Unprofitable’, p. 40, ‘Logica inutilis’, p. 36.

¹⁰⁰¹ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 20, ‘Venatio scientiarum’, p. 20.

¹⁰⁰² Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 17, ‘Venatio scientiarum’, p. 18.

¹⁰⁰³ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 17, ‘Venatio scientiarum’, p. 18.

¹⁰⁰⁴ Van Helmont, chap.3, ‘The Hunting or Searching Out of the Sciences’, p. 18, ‘Venatio scientiarum’, p. 19.

¹⁰⁰⁵ Van Helmont, chap.3, ‘The Hunting or Searching Out of the Sciences’, p. 20, ‘Venatio scientiarum’, p. 21

¹⁰⁰⁶ See above, chapter 2.1. Pseudo-Dionysius, ‘The Divine Names’, pp. 50-51.

sapientiae.¹⁰⁰⁷ Many of Cusa's arguments are repeated: for instance, Van Helmont agrees that reason is non-entity (*non-ens*) and that logic and truth come from separate sources.¹⁰⁰⁸

4.3.3. Mystical Knowledge

As noted above, the Original Sin caused the mind to abandon its governorship of the body, being supplanted by the postlapsarian sensitive soul. Yet the mind did not depart completely. Its occult presence within the body ensures that it can be re-discovered through a process of self-knowledge.

Van Helmont conceives self-knowledge as a mystical experience. In order to understand his perspective, one must accept the premise of the illuminationist tradition, according to which divine illumination fundamentally means knowledge, or *scientia*. Van Helmont concurred with the view that true knowledge does not come from books, or from rational analysis, but only from God: 'the knowing of our selves cannot be hoped for from any other thing than from its Fountain and Governour' [i.e. God].¹⁰⁰⁹ In this sense, Helmont interprets the Grace of God as being the author of true knowledge.¹⁰¹⁰

Yet Van Helmont asks himself the question that had preoccupied many Christian thinkers throughout centuries: what is the point of knowledge? We have already seen that, according to Van Helmont's orthodox Christian views, regeneration, and indeed the afterlife, is granted through the Sacraments and the intercession of Jesus Christ. Thus, knowledge does not appear to play a part in the drama of human salvation.

Instead, Van Helmont affirms that 'the ultimate End of Wisdom, and the reward of the whole course of our Life, [is] Charity or dear Love, the which alone will accompany us, when as other things have forsaken us.'¹⁰¹¹ Thus, the process and acquisition of knowledge justifies itself through the love that an enlightened person might spread to fellow human beings. In this sense, Christian charity means that the

¹⁰⁰⁷ Pagel, *Joan Baptista Van Helmont*, p. 28. However, an in-depth parallel reading of the two treatises has never been undertaken.

¹⁰⁰⁸ Pagel, *Joan Baptista Van Helmont*, pp. 28-29.

¹⁰⁰⁹ Van Helmont, chap. 44, 'A Treatise on the Soul', p. 342, 'Tractatus de Anima', p. 278: 'Ergo aliunde cognition nostril sperari nequit, quam a suo fonte, & Rectore.'

¹⁰¹⁰ Van Helmont, chap. 47, 'The Knitting or Conjoyning of the Sensitive Soul and Mind', p. 351, 'Nexus sensitivae & mentis', p. 285.

¹⁰¹¹ Van Helmont, chap. 35, 'The Image of Mind', p. 263, 'Imago mentis', p. 213: 'Ego, finem ultimum Sapientiae totiusque vitae nostrae cursus bravium, voco charitatem, quae nos comitatur, postquam caetera nos deseruerint'.

possessor of *scientia* would dedicate this knowledge to the betterment of human kind. As will be seen in the next sub-chapter, Van Helmont views medicine as the highest calling, and the preparation of alchemical medicine as the summit of the physician's knowledge.

4.3.3.1. *Mystical Knowledge of the Mind*

Van Helmont follows in the venerable Platonic-Socratic tradition whose first precept was *gnothi seauton*, 'know thyself'.¹⁰¹² This tradition was embraced by Christian Patristic writers as well, notably by St Augustine.¹⁰¹³ To Van Helmont, the edict means much more than soul-searching; he views it as a mystical experience that is difficult to acquire.¹⁰¹⁴ This is because such knowledge transcends any instrument we might use for understanding, including the senses, reason or imagination.¹⁰¹⁵ None of these has access to the immortal mind, which 'is in us, yet it is not perceived by us'.¹⁰¹⁶

To transcend sense-perception, Van Helmont recommends ascetic practices; these 'vanquish' the flesh, and move the soul inwardly toward God. As he puts it in *De magnetica*,

For hitherto have contemplations, continued prayers, watchings, fastings, and acts of mortifications regard, to wit, that the drowsiness of the flesh being vanquished, men may obtain that nimble, active, heavenly, and ready power toward God, and may sweetly confer with him in his presence, who importunately desires, not to be worshipped but in the Spirit, that is, in the profundity or bottom [*fundus*] of the more inward man.¹⁰¹⁷

The later Van Helmont similarly recommends 'continual labour' and 'watching nights'; 'wearisomness' or tiredness is a prelude to the achievement of Grace.¹⁰¹⁸

¹⁰¹² Van Helmont, chap. 3, 'The Hunting or Searching Out of the Sciences', p. 15, 'Venatio scientiarum', p. 17.

¹⁰¹³ St Augustine, *Soliloquies*, in *The Works of Saint Augustine*, ed. by J.E. Rotelle (New York, NY: New City Press, 1990), I.3, 1.2.7; *On the Trinity*, 10.

¹⁰¹⁴ Van Helmont, chap. 35, 'Image of the Mind', p. 263, 'Imago mentis', p. 213.

¹⁰¹⁵ Van Helmont, chap. 35, 'Image of the Mind', p. 263, 'Imago mentis', p. 213.

¹⁰¹⁶ Van Helmont, chap. 35, 'Image of the Mind', p. 264, 'Imago mentis', p. 214.

¹⁰¹⁷ Van Helmont, chap. 112, 'The Magnetick Cure of Wounds', p. 781, 'De magnetica vulnerum curatione', p. 611: 'Huc nempe spectant contemplations, continuatae orations, vigiliae, jejunia, & mortificationis actus, ut devicta nempe carnis somnolentia, potestatem illam agilem, coelestem, & expeditam in Deum nanciscantur, eumque coram alloquantur suaviter, qui non nisi in spiritu, id est, interioris hominis fundo, adorari efflagitat.'

¹⁰¹⁸ Van Helmont, 'The Author Promises', p. 7, 'Promissa authoris', p. 11; chap. 2, 'The Author's Studies', p. 14, 'Studia authoris', p. 13.

According to Van Helmont, ascetic practices, such as fasting, can stir the soul in such a way that intellectual dream-visions may appear.¹⁰¹⁹ These provide insight into the mind, but they are usually presented in the form of riddles that are difficult to disentangle.¹⁰²⁰ Thus, as Giglioni remarked, Van Helmont retains a view of the *visio intellectualis* inherited from St. Augustine.¹⁰²¹ Van Helmont claims that there is a difference between the ‘images of the phantasy and the images of the intellect’, the latter of which can penetrate to the very ‘Centre of the Soul’.¹⁰²² He points out the Biblical passage which states that ‘Night unto night showeth knowledge’, which he interprets as meaning that dreams can provide insight into the mind.¹⁰²³ Indeed, his own mystical experience of the self is facilitated through a sequence of dream-visions, whereby the mind reveals itself as an ineffable crystalline light.¹⁰²⁴ The influence of Christian Kabbalistic ideas should not be discounted in his views of dreams.¹⁰²⁵

In these visions, the soul perceives itself as in a mirror, projecting an image of itself in a human shape.¹⁰²⁶ This is natural, Van Helmont theorises, as one cannot understand an object without forming an image about it; therefore, in order to understand the quiddity of the *mens* a figure must be projected, and the figure is that of the human form.¹⁰²⁷ In other words, an observer cannot distinguish the specificity of a being without the use of an image that circumscribes it and differentiates it from everything else. Or, each soul is unique and must be figured as such, so that, as Van Helmont says, one must be able to distinguish the soul of Peter from the soul of John.¹⁰²⁸

At the same time, Van Helmont emphasises that such intellectual images are neither sufficient nor revelatory enough:

For howsoever beautiful the Vision was, yet my mind obtained not any perfection to itself thereby: for I knew that my mind in the dreaming Vision had acted as it were the person of a third [as a third person:

¹⁰¹⁹ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 22, ‘Venatio scientiarum’, p. 22.

¹⁰²⁰ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 22, ‘Venatio scientiarum’, p. 22.

¹⁰²¹ Giglioni, *Immaginazione e malattia*, p. 37; St Augustine, *The Literal Meaning*, 12.7.

¹⁰²² Van Helmont, chap.3, ‘The Hunting or Searching Out of the Sciences’, p. 22, ‘Venatio scientiarum’, p. 22.

¹⁰²³ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 22, ‘Venatio scientiarum’, p. 22; the quotation originates from Psalms 19:2.

¹⁰²⁴ Van Helmont, chap. 35, ‘Image of the Mind’, p. 265, ‘Imago mentis’, p. 214; see also chap. 1, ‘The Author’s Confession’, p. 9, ‘Confessio authoris’, p. 12.

¹⁰²⁵ On the importance of dreams in Kabbalah, see Moshe Idel, ‘Astral Dreams in R. Yohanan Alemanno’s Writings’, *Accademia* 1 (1999), 111-128.

¹⁰²⁶ Van Helmont, chap. 1, ‘The Author’s Confession’, p. 9, ‘Confessio authoris’, p. 12.

¹⁰²⁷ Van Helmont, chap. 35, ‘Image of the Mind’, p. 267, ‘Imago mentis’, p. 216.

¹⁰²⁸ Van Helmont, chap. 35, ‘Image of the Mind’, p. 267, ‘Imago mentis’, p. 216.

persona tertii]; neither that the representation was worthy of so great a wish.¹⁰²⁹

In other words, images maintain the dualism subject-object, and hence knowledge is indirect and unified. As he explains elsewhere, if ‘anyone doth think of his Soul or of anything as of a third [...] there is not yet the thought, or operation of a pure and only intellect.’¹⁰³⁰

Superior to this vision of the self is the exercise of something which Van Helmont calls ‘the prayer of silence’ (*oratio silentii*), ‘wherein the delights of God are to be adored’.¹⁰³¹ This practice, which seems to be a type of quiet inner contemplation, allows the person to distinguish between the operations of the mind and those of the sensitive soul.¹⁰³² The Christian origins of the silent prayer seem to hark back to Pseudo-Dionysius,¹⁰³³ and it can also be found in the German mysticism of Eckhart and Tauler, as well as St Teresa of Avila.¹⁰³⁴ Closer to Van Helmont, the Paracelsian Oswald Croll maintained that ‘God is prayed unto in the internall Spirit, not with noyse of words, but in a sacred silence’.¹⁰³⁵

This inner prayer is conceived as being wholly detached from sense and reason. In this, Van Helmont brings Pseudo-Dionysius to bear witness of how this should be achieved.¹⁰³⁶ The mind must first disbar itself from all that keeps it attached to mortal things, thus freeing it to look upon God alone.¹⁰³⁷ This activity of freeing one’s self is called by Van Helmont ‘unclothing’ [*denudatio*], being compared with the idea of

¹⁰²⁹ Van Helmont, chap. 35, ‘Image of the Mind’, p. 265, ‘Imago mentis’, p. 215: ‘Nam utut pulchra esset visio: attamen inde nequicquam perfectionis sibi mens acquirit. Cognovi namque, quod mens in somniali vision, velut personam tertii egisset, nec esset tanto optatui digna representatione.’

¹⁰³⁰ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 23, ‘Venatio scientiarum’, p. 23.

¹⁰³¹ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 313, ‘Mentis complementum’, p. 253: ‘...Orationem silentii in spiritu, in quo deliciae Dei sunt adorari’. See also chap. 3, ‘The Hunting or Searching out of the Sciences’, p. 17, ‘Venatio scientiarum’, p. 19; chap. 44, ‘A Treatise on the Soul’, p. 344, ‘Tractatus de Anima’, p. 279; chap. 47, ‘The Knitting or Conjoining of the Sensitive Soul and the Mind’, p. 352, ‘Nexus sensitivae et mentis’, p. 285.

¹⁰³² Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 311, ‘Mentis complementum’, p. 251. See also chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 17, ‘Venatio scientiarum’, p. 19; chap. 44, ‘A Treatise on the Soul’, p. 344, ‘Tractatus de Anima’, p. 279.

¹⁰³³ St Dionysius, ‘The Divine Names’, p. 50: ‘With our minds made prudent and holy, we offer worship to that which lies hidden beyond thought and beyond being. With a wise silence we do honor to the inexpressible’. For pre-Christian examples, see Pieter W. van der Horst, ‘Silent Prayer in Antiquity’, *Numen*, 41:1 (1994), 1-25 (p.10).

¹⁰³⁴ Meister Eckhart portrays the Ground (*Grunt*) of God as ‘simple silence’: Pr. 48 (DW 2:240.7-421.3); see also McGinn, *The Harvest of Mysticism*, p. 119. For St Teresa of Avila’s views of the ‘prayer of quiet’ or ‘supernatural prayer’, see Harvey D. Egan, *Soundings of the Christian Mystical Tradition* (Collegeville, MI: Liturgical Press, 2010), pp. 244-245. Van Helmont mentioned St Teresa as an authority.

¹⁰³⁵ Croll, ‘Admonitory Preface’, p. 72.

¹⁰³⁶ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 312, ‘Mentis complementum’, p. 252.

¹⁰³⁷ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 312, ‘Mentis complementum’, p. 252.

removing one's garments to see oneself as one really is. This image, drawn from the Song of Songs 5:7, is given a particular twist: by clothes, Van Helmont implies the workings of reason, which must be rejected by the mind and replaced by an ardent love of God.¹⁰³⁸

The process of detachment needs to be accompanied by a renunciation of all thought, contemplation or images, and indeed the cessation of any type of mental activity:

I desisted from a more narrow wishing, seeking and searching into anything, I stripped myself of all curiosity and appetite of knowing, I betook my self unto rest or poverty of spirit, resigning myself into the most lovely will of God, as if I were not in being, not in working, in desiring mere nothing, in understanding nothing.¹⁰³⁹

According to Van Helmont, the mind has to render itself completely passive in order to receive the in-flow of the divine light.¹⁰⁴⁰ Passivity had deep roots in the German mystical theology as advocated by Tauler and upheld by the *Theologia Germanica* as well.¹⁰⁴¹ Such a lineage is further suggested by Van Helmont's comparison of the process of renunciation with 'poverty of Spirit'.¹⁰⁴² A more immediate source might have been Croll, who maintained that knowledge was obtained 'by a passive reception of Divine things, not by study and paines, but by patience and submission'.¹⁰⁴³

Van Helmont makes it clear that illumination is received, not willed; it is 'suffered', not actively acquired.¹⁰⁴⁴ In Van Helmont's voluntarist view, the summit of wisdom and sainthood is achieved when God is allowed to impose His own will, and

¹⁰³⁸ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 314, 'Mentis complementum', p. 254.

¹⁰³⁹ Van Helmont, chap. 3, 'The Hunting or Searching Out of Sciences', p. 22, 'Venatio scientiarum', p. 22: 'Suasu ergo illius viri, destiti angustius aliquid optare, quaerere, & investigare, denudavi me omni curiositate, & appetite sciendi, ad quietem, sive paupertatem spiritum, me recepi, resignans me in amabilissimam Dei voluntatem, in quasi non esse, non operari, in merum nil desiderare, nil intelligere.'

¹⁰⁴⁰ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 313, 'Mentis complementum', p. 253.

¹⁰⁴¹ On Tauler's notion of passivity, see Richard Kieckhefer, 'The Notion of Passivity in the Sermons of Tauler', *Recherches de theologie ancienne et medievale* 48 (1981), 198-211 (p. 210). God is essential activity, so our role should be one of empty reception, or passivity (*liden*), see also McGinn, *The Harvest of Mysticism*, p. 270. For the *Theologia Germanica*'s support of passivity and resignation, see Steven E. Ozment, *Mysticism and Dissent: Religious Ideology and Social Protest in the Sixteenth Century* (London: Yale University Press, 1973), pp. 14-45. A copy of the *Theologia Germanica* can be found amongst Van Helmont's papers confiscated by the Inquisition.

¹⁰⁴² Van Helmont, chap. 101, 'The Understanding of Adam', p. 713, 'Intellectus Adamicus', p. 562. This trope was developed by both Meister Eckhart and Johannes Tauler; see McGinn, *The Harvest of Mysticism*, p. 276-277.

¹⁰⁴³ Croll, 'Admonitory Preface', chap. 1, p. 49.

¹⁰⁴⁴ Van Helmont, chap. 3, 'The Hunting or Searching Out of Sciences', p. 26, 'Venatio scientiarum', p. 26.

man obliterates his own.¹⁰⁴⁵ Again, this idea of the annihilation of the will can be found in the mystical tradition, but also in Paracelsus.¹⁰⁴⁶

Such profound renunciation must therefore stop all activity of the mind, except for amorous desire, which can lift up the seeker to the seat of the mind.¹⁰⁴⁷ Van Helmont calls this state a ‘total amorous offering’ (*totali oblatione amorosa*), whereby one offers his own self as a sacrifice.¹⁰⁴⁸ This love must become so powerful that it can no longer be described in words.¹⁰⁴⁹

Yet, Van Helmont emphasises, not even this profound renunciation can ensure divine illumination. In the Augustinian tradition, Helmont insists that God reserves His Grace to whom he wants: ‘it is not of him that wills, runs, and labours; but only of God that sheweth mercy.’¹⁰⁵⁰ Moreover, Helmont is keen to point out that man cannot save himself through his own labours: he could never ‘hope to return unto the brightness of his ancient purity by his own strength’.¹⁰⁵¹ As he also points out, ‘truly it is alike impossible for Flesh to enter into, and see the Kingdom of God, as to ascend into Heaven by a Motion of one’s own’.¹⁰⁵² Such affirmations may sound as if they proffer that works are useless, drawing Van Helmont closer to Protestant thought. However, he expresses the belief that Grace must be deserved, for which purpose one must strive to achieve it. In this sense, the bestowal of Grace is simply a confirmation of merit.¹⁰⁵³

Having reached a superior level of purification,

the Soul thinks of itself, or any other thing, as itself, without an interchangeable course of the thinker, and of the thing thought of, without an appendency [*appendentia*], out-turning [*extraversio*], or respect of duration, place and circumstances.¹⁰⁵⁴

¹⁰⁴⁵ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 314, ‘Mentis complementum’, p. 253: ‘Quamobrem etiam optatur, ut sua voluntas fiat in nobis, super nos, & per nos, cum plenaria resignation nostri velle’. See also *ibid.*, p. 254.

¹⁰⁴⁶ Bergengruen, *Nachfolge Christi*, p. 51.

¹⁰⁴⁷ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 314, ‘Mentis complementum’, p. 254.

¹⁰⁴⁸ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 314, ‘Mentis complementum’, p. 254.

¹⁰⁴⁹ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 314, ‘Mentis complementum’, p. 254.

¹⁰⁵⁰ Van Helmont, chap. 59, ‘A Modern Pharmacopolion and Dispensatory’, p. 459, ‘Pharmacopolion ac Dispensatorium modernorum’, p. 369.

¹⁰⁵¹ Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 676, ‘Demonstratur thesis’, p. 535.

¹⁰⁵² Van Helmont, chap. 93, ‘The Position is Demonstrated’, p. 668, ‘Demonstratur thesis’, p. 529.

¹⁰⁵³ Van Helmont, chap. 101, ‘The Understanding of Adam’, p. 713, ‘Intellectus Adamicus’, p. 562.

¹⁰⁵⁴ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 23, ‘Venatio scientiarum’, p. 23: ‘Ast cum anima cogitate seipsam, at aliud quidquam, tanquam seipsum, sine alteritate cogitantis, & rei cogitatae fine appendentia, extraversione, vel relatione ad durationem, locum, & circumstantia.’

The process is viewed in rather stark sexual terms.¹⁰⁵⁵ As the soul offers itself 'nude', 'truth' is attracted, approaches and 'penetrates' it.¹⁰⁵⁶ As a result of this penetration, a divine being [*Deiforma*] is born within the mind, as in 'the Young of a longing woman great with Child'.¹⁰⁵⁷ This God-form is nothing other than the purified and unclothed mind, ready to receive the in-flowing grace from God.¹⁰⁵⁸

Van Helmont's supreme expression of mystical union is metaphorically expressed by the concept of the Rabbinic *Binsica*, death by God's kiss. It is through this unmitigated act that we are 'being led through unknown Paths [...] adore God in Truth, Righteousness, and the Union of Virtues, under the Light of an abstracted Spirit'.¹⁰⁵⁹

The idea of the *binsica* originated in a sixth-century Jewish Midrash on the Song of Songs.¹⁰⁶⁰ According to this work, the soul of Moses was taken to God with a kiss as a means of painless death.¹⁰⁶¹ The philosopher Moses Maimonides later expanded on this topic by suggesting that the kiss actually symbolised an ecstatic death.¹⁰⁶² This concept would be expanded by later Jewish theologians, who transformed the kiss 'into a metaphor for the soul's abandonment of earthly attachments and ascent toward God'.¹⁰⁶³

The concept of *binsica* was transferred into Christian thought by Pico della Mirandola's *Commentary on a Canzone by Benivieni*.¹⁰⁶⁴ His ideas were later adopted by other Renaissance thinkers such as Francesco Giorgi, and Giordano Bruno.¹⁰⁶⁵

¹⁰⁵⁵ This was neither unusual nor unorthodox. A long tradition of Christian mysticism drew on sexual imagery; see for instance Michael Casey, *A Thirst for God: Spiritual Desire in the Bernard of Clairvaux's Sermons on the Song of Songs* (Kalamazoo, MI, 1987), pp. 192-195.

¹⁰⁵⁶ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 314; 'Mentis complementum', p. 254: 'Quia nudo veritatis amorosae conceptu, ipsa veritas inexprimibili tum mentis actu feritur, fruitur & appropinquat, imo mox penetrat'.

¹⁰⁵⁷ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 314; 'Mentis complementum', p. 254: 'In vi igitur Intellectus, nativoque scilicet Mentis vigore, & amantis animae cupiditate, generatur in nobis, tanquam in foetu appetentis gravidae, ens quoddam Deiforme, sive purificatur ipsa Mens, adeoque Mentem, ipsamque Dei imaginem rectificat'.

¹⁰⁵⁸ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Mind', p. 314; 'Mentis complementum', p. 254.

¹⁰⁵⁹ Van Helmont, chap. 101, 'The Understanding of Adam', p. 713, 'Intellectus Adamicus', p. 562.

¹⁰⁶⁰ B. C. Novak, 'Giovanni Pico della Mirandola and Jochanan Alemanno', *Journal of the Warburg and Courtauld Institutes*, 45 (1982), 125-147 (p. 140); see also Idel, *The Kabbalah in Italy*, pp. 141-146.

¹⁰⁶¹ Novak, 'Giovanni Pico', p. 140.

¹⁰⁶² Novak, 'Giovanni Pico', p. 140.

¹⁰⁶³ Novak, 'Giovanni Pico', p. 140.

¹⁰⁶⁴ Giovanni Pico della Mirandola, *Commentary on a Canzone of Benivieni*, trans. by Sears Jayne (Frankfurt: Peter Lang, 1984), p. 150. It also appears in his 900 theses; Stephen Farmer, *Syncretism in the West*, p. 489. See also Michael J.B. Allen, 'The Birth Day of Venus: Pico as Platonic Exegete in *Commento* and *Heptaplus*', in *Pico della Mirandola: New Essays*, ed. by M.V. Dougherty (Cambridge: Cambridge University Press, 2008), pp. 81-113 (p. 90).

¹⁰⁶⁵ Francesco Giorgio, *De harmonia mundi totius: cantica tria* (Venice: In Aedibus Bernardini de Vitalibus, 1525), III, vi, 18; Giordano Bruno, *The Heroic Enthusiasts*, trans. by L. Williams (London: Folkestone, 1887), II, i, 7.

Again, a more immediate source of inspiration for Van Helmont might have been Oswald Croll, who mentioned the theme, though not the Hebrew word.¹⁰⁶⁶

While adopting the motif of the mystical *binsica*, Van Helmont disagrees with his and the Rabbinic opinion that the kiss was deadly. According to standard Jewish medicine, *binsica* was a fatal sickness which occurred through the atrophy of imagination.¹⁰⁶⁷ Hence, Van Helmont points out that Pico believed that ‘unlesse the operator makes use of a mean, he will soon die of a *Binsica*, or drynesse of the brain’.¹⁰⁶⁸

According to Van Helmont, however, *binsica* does not result in death. He gives two reasons for his belief: first, because ‘the Instruments of the Imagination do not labour in this act: but they sleep unmoved’; secondly, because ‘that act is not in our power: for I believe that that principal act is of Clemency’.¹⁰⁶⁹ Hence Van Helmont revalues *binsica* as a form of illumination from God that can in no way damage life, because God Himself is life and light. In fact, Van Helmont believes, the kiss of God – His projection of light upon the human soul – is a most natural act of divine love. Imagination, a property of the inferior senses, has already been transcended at this point, and all that remains is an unmediated contact between God and the Soul.

Once reaching such a close relationship with God, the amorous soul, ‘fervently desiring the sanctifying of the Name of God’, achieves ‘a melting of the mind’ (*liquatio mentis*).¹⁰⁷⁰ This experience is one of an outpouring of light, as Van Helmont calls it a ‘state of light’ when ‘a certain light falls upon the Soul’.¹⁰⁷¹ By it, the intellect changes itself into the thing understood, which is God, or rather the Kingdom of God (since God in His essence cannot be grasped).¹⁰⁷² For all purposes the intellect becomes God, although this is only a momentary event: the mind disappears being replaced by God’s

¹⁰⁶⁶ Croll, ‘Admonitory Preface’, p. 216: ‘I mean that spirituall Death of the Saints (which the Jewes call the kisse of Death) which is precious in the sight of God...’

¹⁰⁶⁷ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 24, ‘Venatio scientiarum’, p. 24. For a description of the medical *binsica*, see Bartholomew Parr, *The London Medical Dictionary* (London: Ames Mitchell and White William Brown, 1819), entry ‘binsica’: ‘a Rabbinical term signifying mental sickness: by the addition of mors to this term, it is a binsical death; the death which follows the disorders of the mind, such as are produced by the bite of a mad dog.’

¹⁰⁶⁸ Van Helmont, *Opuscula medica inaudita*, ‘On the Plague-Grave’, chap. 10, ‘A Living Creature Imaginative’, p. 1118; ‘Tumulus Pestis’, chap. 10, ‘Animal phantasticum’, p. 859.

¹⁰⁶⁹ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 24, ‘Venatio scientiarum’, p. 24: ‘...quia organa Phantasiae in hoc non laborant, dormiunt vero immota, tanquam si non essent...Credo namque principalem illum actum, esse clementiae’.

¹⁰⁷⁰ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 314, ‘Mentis complementum’, p. 254; see also chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 24, ‘Venatio scientiarum’, p. 24.

¹⁰⁷¹ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 23, ‘Venatio scientiarum’, p. 24: ‘Tum, tum inquam, lumen quoddam, cadit super Animam’.

¹⁰⁷² Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 23, ‘Venatio scientiarum’, p. 23

figure itself.¹⁰⁷³ The mind becomes a true mirror of God, ‘reflexed in the glass of his own Divinity’.¹⁰⁷⁴

However, Van Helmont carefully shies away from maintaining the complete loss of identity in divinity, for fear of falling into heresy. Van Helmont avoids controversy by insisting that although the mind becomes the thing understood (God), it remains the Image of God, not God Himself. Thus, he maintains that ‘although the understanding doth by an intellectual act, transform it self into the likeness, or kinde of the thing understood: yet it keeps its own property and essence, unintermixed’.¹⁰⁷⁵ In other words, if the mind becomes the image of God, it still remains a created being, not God Himself.

Yet there are also lasting effects, because by contact with God the mind becomes ‘sprinkled with a new dew of perfection’.¹⁰⁷⁶ Once the path is known, it can be reiterated; indeed, the mystic is eager to return to this state.¹⁰⁷⁷ The result is a perfecting of the mind. By it, our understanding ‘is so much the more ennobled, by how much the more it suffers by the light which is beyond all nature’.¹⁰⁷⁸

The source of Van Helmont’s mystical concepts is twofold. On one hand, Van Helmont draws on the rich Pseudo-Dionysian mystical tradition, with its emphasis on intellectual union with God. More specifically, Van Helmont is profoundly influenced by the medieval mysticism of such thinkers as Meister Eckhart and Johannes Tauler.¹⁰⁷⁹ In his autobiography he mentions his reading of Tauler, which increased his desire that he ‘might contemplate of the naked truth, and immediately love it’.¹⁰⁸⁰ We have seen that *De magnetica* freely borrows Tauler’s concepts of the inner and outer man and the Ground of the soul. Although the late Van Helmont grew more critical of Tauler, and even included the German thinker amongst those Christian ‘Stoics’ who made him ‘an

¹⁰⁷³ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 23, ‘because for that moment, it passeth over into that, and tasteth down that’, ‘Venatio scientiarum’, p. 23: ‘eo quod pro momento, transmigrate in illud, illudque degustat’. Van Helmont’s opinion seems to reflect that of Johann Tauler who maintained that in mystical union ‘the spirit melts entirely and sinks itself into all things and is drawn into the hot fire of love, which is essentially and by nature God himself’. See McGinn, *The Harvest of Mysticism*, p.260

¹⁰⁷⁴ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 313, ‘Mentis complementum’, p. 253: ‘...sic in speculo suae divinitatis reflexam’.

¹⁰⁷⁵ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 24, ‘Venatio scientiarum’, p. 24: ‘Sic tamen, ut licet intellectus, actu intellectuali, se transformet in speciem rei intellectae, servet tamen impermistam suam proprietatem, & essentiam, in quam iterum redit, mox atque ab illo actu cessaverit’.

¹⁰⁷⁶ Van Helmont, chap. 40, ‘The Compleating or Perfecting of the Mind’, p. 315, ‘Mentis complementum’, p. 254.

¹⁰⁷⁷ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 26, ‘Venatio scientiarum’, p. 26.

¹⁰⁷⁸ Van Helmont, chap. 3, ‘The Hunting or Searching Out of the Sciences’, p. 26, ‘Venatio scientiarum’, p. 26: ‘Quod eo plus nobilitetur, quo plus patitur a lumine, quod est supra omnem naturam.’

¹⁰⁷⁹ See McGinn, *The Harvest of Mysticism*, p. 268 for a discussion on how Eckhart, Suso and Tauler sought detachment and release from desire and worldly emotions to reach knowledge of God.

¹⁰⁸⁰ Van Helmont, chap. 2, ‘The Author’s Studies’, p. 12, ‘Studia authoris’, p. 15.

empty and swollen Bubble' of pride,¹⁰⁸¹ his concepts and approach to the mystical experience remain strongly influenced by Eckhartian and Taulerian thought. The language of his mystical experience is permeated with expressions drawn from Eckhart and Tauler. Van Helmont portrays mystical ecstasy as a 'turning inward'.¹⁰⁸² He also refers to the process of silent prayer as 'poverty of the spirit', 'naked poverty' and an emptying of one's self, a theme that recurs in German mysticism.¹⁰⁸³

At the same time, I have shown that many of the German mystical ideas may have been mediated for Van Helmont via the Paracelsians, chiefly Paracelsus and Oswald Croll. Concepts such as the annihilation of will, the passivity of the mystical state, *scientia* as self-knowledge and others can be found in Paracelsus, Croll, Boehme and others. Van Helmont may also have been aware of the works of Valentin Weigel (whom Croll praised) and Johann Arndt, who were influenced by Paracelsianism as well as the medieval mystical tradition.¹⁰⁸⁴

4.3.3.2. *The Mystical Knowledge of Nature*

As there is interior and exterior man there is inner and outer knowledge. The outer knowledge is the 'knowledge of the Apple', which is nothing else but rational inquiry, while true knowledge (*scientia*) is that obtained through the mystical experience of the mind.¹⁰⁸⁵ Naturally, Van Helmont rejects any concept according to which one could successfully inquire into nature without having previously been illuminated by God:

for whosoever he be that is unapt at the beginning, to comprehend the motions, exercises, effects, and thingliness or essence of the immortal mind, shall also be unfit to understand the secrets of nature, which are more remote from the mind than itself is from itself.¹⁰⁸⁶

This is because, he points out, knowing 'frail' or mortal things cannot lead to further knowledge: one can never ascend from the low to the high.¹⁰⁸⁷ This doctrine had

¹⁰⁸¹ Van Helmont, chap. 2 'The Author's Studies', p. 12, 'Studia authoris', p. 15.

¹⁰⁸² Van Helmont, chap. 44, 'A Treatise on the Soul', p. 342, 'Tractatus de Anima', p. 278.

¹⁰⁸³ Van Helmont, chap. 3, 'A Hunting or Searching Out of the Sciences', p. 22, 'Venatio scientiarum', p. 22.

¹⁰⁸⁴ On Weigel, see Ozment, *Mysticism and Dissent*, pp. 203- 245; Andrew Weeks, *Valentin Weigel (1533-1588)* (Albany, NY: SUNY Press, 2000).

¹⁰⁸⁵ Van Helmont, chap. 112, 'The Magnetick Cure of Wounds', p. 781, 'De magnetica vulnerum curatione', p. 611.

¹⁰⁸⁶ Van Helmont, chap. 44, 'A Treatise on the Soul', p. 342, 'Tractatus de Anima', p. 277: 'Quicumque enim ineptus est initio, comprehendere mentis immortalis motus, exercitia, effectus & quidditatem; inhabilis quoque erit, ad intelligendum naturae arcana, a mente remotiora, quam est ipsa a seipsa'.

¹⁰⁸⁷ Van Helmont, chap. 44, 'A Treatise on the Soul', p. 342, 'Tractatus de Anima', p. 278.

medieval precedents: St. Bonaventure, for instance, believed that the internal world illuminated the external, and knowledge of microcosm was prerequisite to that of the macrocosm, while Henry of Ghent denied natural knowledge could be obtained without divine illumination.¹⁰⁸⁸

Van Helmont points out that Nature is no simpler than the mind, being in fact just ‘as darksome, covered, and difficult’.¹⁰⁸⁹ Hence, he argues, ‘it is simply false, that the knowing of the mind is more difficult than the naked knowing of things [...] Because all things are alike unknown to us, because the essences of all Beings whatsoever, is their precise Truth’.¹⁰⁹⁰ Here Van Helmont makes two important affirmations: one, that the mind and nature are alike in their profound hiddenness; and second, that all beings contain an essence which is divine. As we have seen in God in Nature, the spark of God is present in all creatures.¹⁰⁹¹

Van Helmont goes beyond negative theology and negative anthropology to propose a negative cosmology. Because God is in all things, and God is fundamentally unknown, there is an essence in all things that is similarly unknowable. This essence of beings is portrayed as being inaccessible to human beings in their fallen state, but open to God, who alone has the ability to know their substance.¹⁰⁹² Van Helmont derides those that believe that knowledge of water, for instance, is easier than that of the mind, on the basis that water can be perceived by the senses. This is fallacy, he says, because sight bestowes only ‘knowledge of observation’ rather than ‘internal knowledge of essence or thingliness (*quidditas*)’.¹⁰⁹³ There is a fundamental difference between the surface of things and their essence. This leads him to postulate that ‘a Being which is visible is as well unknown intellectually, as that which is invisible’.¹⁰⁹⁴ Perception by the senses does not bestow knowledge of the essence of the thing being perceived. As Van Helmont wonders, ‘whoever of mortals knew what the water may be?’¹⁰⁹⁵

¹⁰⁸⁸ Jaroslav Pelikan, *The Growth of Medieval Theology (600-1300)* (London: University of Chicago Press, 1978) p. 305; Gilson, *The Christian Philosophy in the Middle Ages*, p. 448.

¹⁰⁸⁹ Van Helmont, chap. 44, ‘A Treatise on the Soul’, p. 343, ‘Tractatus de Anima’, p. 278: ‘Quinimo sunt rerum sublunarium cognitiones essentias, & a priori, aequae tenebrosae, tectae & difficiles, atque est ipsa Mentis immortalis conceptio’. See also above, chapter 4.1 On God.

¹⁰⁹⁰ Van Helmont, chap. 44, ‘A Treatise on the Soul’, p. 343, ‘Tractatus de Anima’, p. 278: ‘Ergo simpliciter falsum, quod cognitione Mentis sit rerum nuda cognitione difficilior, aut postponenda ideo. Quippe omnes sunt nobis aequaliter ignotae. Quia entium quorumcunque quidditas, est eorum veritas praecisa, clausa versus nos, & patens ad Infinitum.’

¹⁰⁹¹ See above, 4.1.4.1.

¹⁰⁹² Van Helmont, chap. 44, ‘A Treatise on the Soul’, p. 343, ‘Tractatus de Anima’, p. 278.

¹⁰⁹³ Van Helmont, chap. 44, ‘A Treatise on the Soul’, p. 343, ‘Tractatus de Anima’, p. 278.

¹⁰⁹⁴ Van Helmont, chap. 44, ‘A Treatise on the Soul’, p. 344, ‘Tractatus de Anima’, p. 279: ‘Cum tamen alioquin, in entis entitate, tam sit intellectualiter ignotum visibile, quam est invisibile.’

¹⁰⁹⁵ Van Helmont, chap. 44, ‘A Treatise on the Soul’, p. 343, ‘Tractatus de Anima’, p. 278: ‘Quippe quis unquam mortalium novit, quid sit aqua?’

Thus, from the primary mystical experience of the mind, Van Helmont derives mystical experience of Nature. This secondary mysticism imitates the primordial mystical knowledge of the self. To understand others, one must first perform the act of renunciation: he must forsake all knowledge and draw himself into 'despair'. This state Van Helmont imagines as one of profound darkness, where no light penetrates.¹⁰⁹⁶

The process of knowledge is achieved by the 'adaptation' [*adequatio*] of the human intellect to the being investigated. This concept reflects the Thomistic definition of truth as the *adequatio* of the intellect to things, which was adopted by Scholastic thought.¹⁰⁹⁷ However, Van Helmont gives this definition a twist by also calling it a 'transmutation' in alchemical terminology.¹⁰⁹⁸ Just as in the case of the primary mystical experience, the intellect must liquefy and transform itself into the essence it seeks to understand; then it becomes its mirror, or image.¹⁰⁹⁹ He underlines that such a process of transformation can only occur with the help and Grace of God, even if it concerns knowledge of nature.¹¹⁰⁰

Again, as in the primary mystical experience of the self, Van Helmont emphasises that by this process the human intellect does not actually become the essence of the thing understood. The essence of the intellect and the essence of the thing remain unaltered. However, the intellect has the property of becoming a mirror or image of the natural thing, reflecting its essence within it.¹¹⁰¹

This may seem like an indirect form of knowledge, if Van Helmont did not go further. As already mentioned, there is only one Truth, which is also the Essence and the Goodness, and this is God.¹¹⁰² The interpretation of God as Truth was a typically Augustinian tenet which was upheld not only by Van Helmont but by St Thomas Aquinas, the Scholastics and by Mersenne.¹¹⁰³ Thus, once the mind gains access to the Truth through self-knowledge, it also gains access to the Truth of everything. As he states, 'the truth of Essence, and the truth of intellectual knowledge are one and the

¹⁰⁹⁶ Van Helmont, chap. 44, 'A Treatise on the Soul', p. 343, 'Tractatus de Anima', p. 278.

¹⁰⁹⁷ Jan A. Aertsen, 'Truth as Transcendental in Thomas Aquinas', *Topoi* 11 (1992), 159-171 (163-164).

¹⁰⁹⁸ Van Helmont, chap. 3, 'A Hunting or Searching out of the Sciences', p. 22, 'Venatio scientiarum', p. 22.

¹⁰⁹⁹ Van Helmont, chap. 3, 'A Hunting or Searching out of the Sciences', p. 24, 'Venatio scientiarum', p. 24.

¹¹⁰⁰ Van Helmont, chap. 3, 'A Hunting or Searching out of the Sciences', pp. 23-24, 'Venatio scientiarum', p. 24.

¹¹⁰¹ Van Helmont, chap. 3, 'A Hunting or Searching out of the Sciences', p. 24, 'Venatio scientiarum', p. 24.

¹¹⁰² Van Helmont, chap. 3, 'A Hunting or Searching Out of the Sciences', pp. 21, 25, 'Venatio scientiarum', pp. 21, 25.

¹¹⁰³ For this theory in St Augustine, see Etienne Gilson, *Introduction à l'étude de Saint Augustin* (Paris: Vrin, 1929), pp. 112-125; for Mersenne and Jesuit use of this idea, Dear, *Mersenne and the Learning of the Schools*, pp. 84-85, 95-96.

same.’¹¹⁰⁴ Hence there is only one Truth, and a common Essence to all things. In this sense, the act of transformation is the same as the act of looking into a mirror: the mind sees its own Truth and in this Truth the Essences of all things. Or, as he explains, ‘the understanding intellect is no otherwise different from the thing understood, than as a beam of light which is direct, differs from itself, being reflexed’.¹¹⁰⁵ Through Truth, the Essence of the thing is united with the light of understanding.

The complexity of Van Helmont’s account of the acquisition of natural knowledge can easily be linked with his theory of Adeptship, which I have touched on in chapter 3, ‘Christian Alchemical Influences’.¹¹⁰⁶ This vision of the exclusivity of superior knowledge (*scientia*) raises important questions in relation to the method of reaching it.

We have already noted above that Van Helmont believed that knowledge of Nature was subsequent to that of the mind. Does this mean that one is to abandon all pursuit of outer knowledge until inner knowledge is attained? Van Helmont makes it clear that self-knowledge is the primordial and archetypal form of *scientia*, and as such has to be mastered before any other knowledge is pursued.

However, this may have been Van Helmont’s ‘ideal’ scheme. In practice, we find from his biography that he concomitantly pursued mystical enlightening and alchemical knowledge. This was more in line with the traditional Paracelsian motto, ‘Ora et Labora’, beautifully rendered in Heinrich Khunrath’s *Amphitheatrum Sapientiae Aeternae*. On the other hand, neither is mystical self-knowledge final: we have seen Van Helmont argue that mystical experience must be ‘perfected’ in time. After all, Adeptship is only attained by difficulty and hardship. Hence, in practice illumination in the prayer-room and the laboratory could have overlapped.

Of course, this raises the interesting question of whether the laboratory might have influenced mystical experiences, and if so, in what manner. There is also the question of exactly how mystical knowledge was related to the alchemical laboratory. It is clear from Van Helmont’s description of the *scientia* of Nature that the oratory and laboratory are similar in function.

Indeed, since Van Helmont thinks the mystical experience of the self and God are fundamentally the same as that of Nature, it follows that a natural philosopher must

¹¹⁰⁴ Van Helmont, chap. 3, ‘A Hunting or Searching Out of the Sciences’, pp. 25, 26, ‘the Essence of truth doth nothing differ from the Essence of the understanding’; ‘Venatio scientiarum’, pp. 25, 26.

¹¹⁰⁵ Van Helmont, chap. 3, ‘A Hunting or Searching Out of the Sciences’, p. 25, ‘Venatio scientiarum’, p. 25.

¹¹⁰⁶ See above, chapter 3.

exercise mystical techniques for the knowledge of Nature. In other words, one may surmise that the work in the laboratory must be undertaken with the same type of pious zeal and Christian faith as prayer. In this kind of framework, work can even be seen as a form of the prayer of silence.

We can take the analogy further and imagine how natural knowledge could be obtained. Thus, knowledge of a particular natural object would involve a spiritual preparation of the 'scientist'. This implies the use of ascetic practices and of concentration techniques which can stir up images of the intellect, including dreams. One interesting detail that Van Helmont reveals is the importance of working in solitude at night time. Thus, he believes that the Biblical edict 'night unto night showeth knowledge' should be read as an indication to perform experiments at night. This process of 'stirring up the imagination' is presumably long and tiresome. The natural philosopher may then be repaid with knowledge in the form of dreams or some other flashes of insight.

However, this is still not the pure form of natural knowledge. In the next stage, all images are abandoned in favour of profound darkness, accompanied by strong negative emotions. It is only at this stage that God's Grace may descend upon the soul of the researcher and penetrate it; consequently, the intellect transforms itself into the thing understood, or in Van Helmont's light theory, the mind receives the form of the natural object in the shape of a ray of light.

4.3.3.3. *Prophecy*

For Van Helmont, *scientia* is an essential gift and privilege of Man as *imago Dei*, and encompasses that of the self, God and Nature. Yet Van Helmont does not stop here, claiming that a key *scientia* possessed by the enlightened man is prophecy. This idea, drawn directly from Paracelsus, maintains that the status of Adept includes or implies the ability to prophesy the future.

The middle Van Helmont maintained, in his correspondence to Mersenne (1630), that stars bestow knowledge of the future.¹¹⁰⁷ He denied that stars can cause future events, but can instead show signs of them, which can be deciphered by an enlightened man. Yet it was in the *Ortus*, particularly the treatise 'Stars do Necessitate, not Incline, nor Signifie, of the Life, of the Body or Fortunes of him that is Born', where Van Helmont makes his clearest case on behalf of what he calls 'celestial prophecy'.

¹¹⁰⁷ '19 Décembre 1630', p. 586.

Modern readers can be easily misled into thinking that the later Van Helmont rejected prophecy. At least, Pagel's influential account of the *Ortus* gives the impression that the Flemish philosopher was a 'progressive' thinker who viewed the stars only as 'light signals'.¹¹⁰⁸ Thus, Pagel affirmed that for Van Helmont the stars 'have no power of [...] forecasting anything' and that he rejected Paracelsus's 'significance attributed to the stars'.¹¹⁰⁹ As mentioned in chapter 1, Pagel's views were coloured by his anachronistic drive to prove Van Helmont was in many ways a modern scientific thinker. Although he is absolutely right that Van Helmont rejected judicial astrology, this was done in the spirit of Paracelsus, not against him, and in order to advance the Paracelsian agenda of celestial prophecy advocated in *Astronomia magna*.¹¹¹⁰

Van Helmont believed that in arguing on behalf of celestial prophecy he was closely following the Christian faith, and he brought up numerous Bible quotations in his support. His chief verse comes from Psalms 19:1, wherein it is stated that 'the heavens declare the glory of God, and the firmament sheweth his handywork'. From this Van Helmont draws the conclusion that the 'Star-bearing Heaven doth as it were a Preacher, shew the wonderful works of the Lord's hands to intellectuall Creatures'.¹¹¹¹

Van Helmont then draws an intriguing distinction between the 'causation' and 'necessitation' by stars. Thus, although stars do 'cause' seasons and meteorological phenomena by their *blas*, their 'causation' does not apply to human beings. This is drawn from Genesis 1:14, according to which light is meant to 'be for signs, and for seasons, and for days, and years'.¹¹¹²

Instead, stars 'necessitate', by which Van Helmont means that the stars 'import' the necessity from God. Hence, he explains, 'although they do not necessitate causatively [...] yet they do necessitate as they shew the will of God'.¹¹¹³ To illustrate his point, he offers the analogy of a person who alerts his Prince by a letter of the fact that the enemy prepares to wage war. Van Helmont maintains that such a person cannot be taken as either an inclining or inciting cause of the war. Instead, the person signifies

¹¹⁰⁸ Pagel, *Joan Baptista Van Helmont*, p. 46. Pagel avoids mentioning exactly what he meant by 'light signals'. He then uses the equally confusing expression 'luminous dials', p. 47.

¹¹⁰⁹ Pagel, *Joan Baptista Van Helmont*, p. 48.

¹¹¹⁰ Gassendi rejected judiciary astrology as well; see his *The Vanity of Judiciary Astrology, or Divination by the Stars* (London: Humphrey Moseley, 1659).

¹¹¹¹ Van Helmont, 'Stars Necessitate', p. 119, 'Astra necessitant', p. 96: 'Stelligerum autem Coelum, tanquam praeco, annunciet admiranda opera manuum Domini, creaturis intellectualibus'.

¹¹¹² Gen 1:14, 'And God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years'.

¹¹¹³ Van Helmont, chap.20, 'Stars Necessitate', p. 123, 'Astra necessitant', p. 100.

the war as a messenger; in turn, the Prince, assuming the message is understood, is free to act as he wishes to this forewarning.

In this analogy, the messenger is the stars, and the Prince the human being: Van Helmont hence argues that the office of stars is to display God's intentions; indeed, not every day occurrences ('necessary and ordinary Revolutions'),¹¹¹⁴ but what Van Helmont deems the 'handy works of God' (*opera manum Domini*), or the divine providence that regularly intervenes in human affairs.¹¹¹⁵ Hence, Van Helmont points out that the downfall of kings, wars, famine, plague and earthquakes are all a reflection of God's will.¹¹¹⁶

Van Helmont certainly saw the consequences of his doctrine, which is the existence of strict necessity. Indeed, he firmly believes that any Christian philosopher who accepts the omnipotence of God must agree that stars necessitate.¹¹¹⁷ Yet, as already seen by the example of the messenger, the strict necessity of the stars does not take away from man's free will to react as he wishes to the event.

Van Helmont further explains that God prefigures his handy works in the stars, by pictures inscribed in them (*pictura astrorum*).¹¹¹⁸ Hence contingencies are 'painted out by the Stars'.¹¹¹⁹ Yet it would be absurd to think that such symbols may not be deciphered by anyone; indeed, Van Helmont affirms that, on the contrary, they are meant to be understood by intellectual beings, meaning the devil, the angels, and initiated humans. The latter are God's Prophets. Here again he brings in the Bible to support his belief, drawing on Amos 3:7, 'Surely the Lord God will do nothing, but he revealeth his secret unto his servants the prophets'.¹¹²⁰

The true office of the Prophets, for Van Helmont, is to decipher the symbols (*typos*) in the stars by means of tables or laws of destiny (*leges fati*). It is clear at this point that what he is referring to is the same as the 'celestial astronomy' of his letters to Mersenne. He repeats that this knowledge is not the alphabetic Kabbalah of the Jewish rabbis, but refers to the fact that 'Provinces, Kingdoms, and men, have their [personal] Stars' which are deciphered according to type.¹¹²¹

¹¹¹⁴ Van Helmont, chap.20, 'Stars Necessitate', p. 119, 'Astra necessitant', p. 96.

¹¹¹⁵ Van Helmont, chap.20, 'Stars Necessitate', p. 119, 'Astra necessitant', p. 96.

¹¹¹⁶ Van Helmont, chap.20, 'Stars Necessitate', p. 119, 'Astra necessitant', p. 97.

¹¹¹⁷ Van Helmont, chap.20, 'Stars Necessitate', p. 123, 'Astra necessitant', p. 99.

¹¹¹⁸ Van Helmont, chap.20, 'Stars Necessitate', p. 120, 'Astra necessitant', p. 97.

¹¹¹⁹ Van Helmont, chap.20, 'Stars Necessitate', p. 120, 'Astra necessitant', p. 97.

¹¹²⁰ Van Helmont, chap. 20, 'Stars Necessitate', p. 120, 'Astra necessitant', p. 97: 'Non fecit Dominus verbum, quod non significant servis suis Prophetis'.

¹¹²¹ Van Helmont, chap. 20, 'Stars Necessitate', p. 122, 'Astra necessitant', p. 99.

To the modern layman, this new concept may seem like astrology, but Van Helmont certainly perceived prophecy and astrology as being radically different. This prophetic science is a ‘gift of God’, meaning that true knowledge of it is bestowed only on chosen people, ‘the Servants or Prophets of God’ (*servis Dei, sive Prophetis*).¹¹²² Hence it can also take the form of dreams, interpretations thereof or Apostolic prophecy.¹¹²³ Van Helmont even compares it with the drunken prophesying of the Bacchantes, or Paracelsus’s inebriated gift (*donum inebrietatum*).¹¹²⁴ One may of course argue that equating drunken foretelling with a *scientia* of prophesying is incongruent, but Van Helmont is more likely trying to accommodate the numerous instances of prophecy in the Bible.

It is only regrettable in this case that Van Helmont does not go any further with his description of the celestial prophecy he is advocating, leaving us to speculate on exactly what he is referring to. We have already seen that he was terse about this in the Mersenne letters as well, and that in *De magnetica* he focused on natural magic rather than on this higher one. One is left to wonder whether Van Helmont actually practiced this celestial astronomy, and whether he saw himself as being one of the Prophets. Certainly no prophecy ascribed to him has survived.

As previously mentioned, the direct influence on this theory is Paracelsus’s *Astronomia magna*, where the latter discusses ‘celestial astronomy’.¹¹²⁵ However, we must also consider the strong presence of a prophetic tradition in alchemical thought. Petrus Bonus, whom Van Helmont read, maintained that alchemy was directly connected with prophecy.¹¹²⁶ The close relationship of alchemy and prophecy was also affirmed by Giovanni da Correggio, who claimed that the possession of the Philosophers’ Stone would allow one to know all things, including those in the future.¹¹²⁷

¹¹²² Van Helmont, chap. 20, ‘Stars Necessitate’, p. 122, ‘Astra necessitant’, p. 99.

¹¹²³ Van Helmont, chap. 20, ‘Stars Necessitate’, p. 122, ‘Astra necessitant’, p. 99.

¹¹²⁴ Van Helmont, chap. 20, ‘Stars Necessitate’, p. 122, ‘Astra necessitant’, p. 99.

¹¹²⁵ See above, chap. 3.

¹¹²⁶ Chiara Crisciani, ‘The Conception of Alchemy as Expressed in the “Pretiosa Margarita Novella” of Petrus Bonus of Ferrara’, *Ambix*, 20 (1973), 165-181.

¹¹²⁷ Hanegraaff, ‘Pseudo-Lullian Alchemy and the Mercurial Phoenix’, pp. 108-109.

4.3.4. The Sacred Art of Medical Alchemy

4.3.4.1. Christian Charity and Medicine

As already noted, for Van Helmont the end of all knowledge is helping one's neighbour. Thus, Van Helmont rejects the Stoic concept according to which the end of Wisdom is the knowledge of one's own self.¹¹²⁸ In fact, seeking knowledge without having charity results in a dead end, because

they who always study, as enquiring after the Truth, do notwithstanding never attain unto the knowledge thereof; because they being blown up with the Letter, have no Charity, and do cherish hidden Atheism.¹¹²⁹

Since love for others is the end of wisdom, the knowing mind must return from the mystical state of self-knowledge to enlighten and help fellow human beings. This is how love is the beginning of the road to God; for, in the Helmontian concept, the true Christian does not remain united with or suspended in God, but must travel back to share the bounty of God's love with others. As love toward others is the true responsibility of the illuminated soul, the pursuit of natural knowledge and of practical works is vindicated.

In his development of the charity idea, Van Helmont is reverting back to St Paul and St Augustine, for whom *caritas* (or *agape*) ranks first amongst Christian virtues.¹¹³⁰ This is because God himself is charity.¹¹³¹ In other places, Van Helmont talks about the 'clemency' of God 'which turns all things into good to those that love him, for his great goodness sake'.¹¹³² The model of charity is Jesus Christ himself, whose love for other human beings led him to die on the cross.¹¹³³

Charity, for Van Helmont, includes the duty of following one's calling, loving and doing one's best for one's neighbours: 'whosoever will aspire unto a higher Degree of Charity, let him endeavour so far as according to his Talent he shall be able, in all Humility'.¹¹³⁴ The reason is that 'the Lord loveth those that work mercy, and therefore

¹¹²⁸ Van Helmont, chap. 35, 'The Image of the Mind', p. 263, 'Imago mentis', p. 213.

¹¹²⁹ Van Helmont, chap. 35, 'The Image of the Mind', p. 263, 'Imago mentis', p. 213.

¹¹³⁰ Servais Pinckaers, *The Sources of Christian Ethics*, 3rd edition (Washington, DC: Catholic University of America, 1995), p. 27; Mary T. Clark, *Augustine* (Washington, DC: Continuum International Publishing Group, 2005), p. 44.

¹¹³¹ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1080; 'Tumulus Pestis', chap. 1, p. 835.

¹¹³² Van Helmont, 'Author's Promises', p. 10, 'Promissa authoris', p. 13.

¹¹³³ Van Helmont, chap. 109, 'Life', p. 745, 'Vita', p. 586.

¹¹³⁴ Van Helmont, chap. 101, 'The Understanding of Adam', p. 713, 'Intellectus Adamicus', p. 562.

he enlightens them by his Spirit, the Comforter'.¹¹³⁵ Charity is best achieved through continuous efforts and struggle against adversity. By 'fighting', human beings can hope to achieve a 'Crown', or an 'increase of Grace'.¹¹³⁶

Such dedication to charity makes Helmont exalt the virtues of the physician, who was created by God to cure the illnesses of fellow human beings: 'for the most High created the Physitian, as also, medicine out of the earth'.¹¹³⁷ This belief is drawn on Ecclesiasticus (Jesus Sirach) 38:1, a text that Paracelsians were fond of quoting.¹¹³⁸ Of all people, the physician is called to imitate God the healer by spreading his gifts of medicine to others.¹¹³⁹ Thus the real physician is 'full of Charity', 'for he shall prepare, to the honour of God, his free gifts, to the comfort of his Neighbour; and therefore compassion shall be his Leader'.¹¹⁴⁰ Physicians should not accept payment from the poor, because they receive their reward from God Himself.¹¹⁴¹

Van Helmont firmly believes in the 'election' of physicians by God, and the very mark of this predestination is their inclination toward healing: 'For those Physitians whom the Almighty hath created, are not Pipers [flute-players]: But in the compassion of Charity, do peculiarly cure the poor'.¹¹⁴² Hence, Van Helmont does not shy away from affirming that physicians 'are fitted from their Mothers womb' to their craft.¹¹⁴³ Indeed, he firmly believed that the inclination toward a certain craft or occupation was given directly by God, rather than the *semen*.¹¹⁴⁴

The physician does not cure just by prescribing medicine, but by establishing a sympathetical link with the patient: love supports the healing process. It is the

¹¹³⁵ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1076, 'Tumulus Pestis', chap. 1, p. 832.

¹¹³⁶ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1076, 'Tumulus Pestis', chap. 1, p. 832.

¹¹³⁷ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, 1074, 'Tumulus Pestis'; chap. 62, 'The Author Answers', pp. 527-528, 'Respondet author', p. 422.

¹¹³⁸ Debus, *The Chemical Philosophy*, p. 52; *The French Paracelsians*, p.11. For Van Helmont's reiteration of this Paracelsian motif, see also *The Chemical Philosophy*, pp. 357-359.

¹¹³⁹ Van Helmont, 'The Author Promises', p. 6; 'Promissa authoris', p. 10.

¹¹⁴⁰ Van Helmont, *Opuscula medica inaudita*, 'On the Plague-Grave', chap. 1, p. 1076, 'Tumulus Pestis', chap. 1, p. 832.

¹¹⁴¹ Van Helmont, 'Opuscula medica inaudita, On the Plague-Grave', chap. 1, pp. 1077, 1079, 'Tumulus Pestis', chap. 1, pp. 832, 834.

¹¹⁴² Van Helmont, chap. 62, 'The Author Answers', p. 527; 'Respondet Author', p. 422: 'Non enim auloedi sunt medici, quos creavit omnipotens: sed in compassione charitatis medentur peculiariter pauperibus, eoque symbol agnoscuntur.'

¹¹⁴³ Van Helmont, 'The Author Promises', p. 6, 'Promissa authoris', p. 10: 'ejusmodi autem Medici sunt, in ventre matris praeparati'.

¹¹⁴⁴ Van Helmont, chap. 20, 'Stars Necessitate', p. 124, 'Astra necessitant', p. 101.

physician's free expression of love toward other people that in fact allows the cure to take effect.¹¹⁴⁵

It is clear that for Van Helmont, the true physician is more than simply a healer: he is a Christian mystic and a natural philosopher as well. These dimensions are so thoroughly intertwined in Van Helmont's view that no clear separation can be made between them. It is in the figure of the mystical thinker who is a physician and an inquirer into the secrets of nature that Helmont's view of Christian Philosophy emerges. The ideal, unsurprisingly, comes from the Bible, and the story of the craftsmen Bezalel and Aholiab, who were enlightened by God: 'The *Father of Lights* therefore is to be intreated, that he may vouchsafe to give us knowledge, such as once he did unto *Bezaleel* and *Aholiab*, for the glory of his own Name'.¹¹⁴⁶

Van Helmont further formulates a vision of a united congregation of physicians who act in a 'blessed Unisone of Harmony' (*sub beato unisono*) and support each other in finding cures for the patients.¹¹⁴⁷ They must all be pervaded by charity and religious feeling. For Van Helmont, the true physician is the one who is able to annihilate his own will for the sake of God's; he does not follow his own ends but those established by divinity. Here again we return to the fundamental Helmontian voluntarism which emphasises the all-knowing divine will.

Undoubtedly, such exaltation of the virtues of the physician originates mainly from Paracelsian doctrine. Paracelsus believed that a healer must be possessed by love for one's neighbour, and differentiated between the real and false physicians:

Thus should we know that there are two kinds of physicians: those who act for love and [those who act] for profit, and by their works are they both known. Thus are the true ones known by their love and the just fails not in his love for his neighbour. The unjust, however, the same as act against the commandment, reap where they have not sown and are as rending wolves.¹¹⁴⁸

¹¹⁴⁵ Van Helmont, chap. 84, 'Of Sympathetic Mediums and Means', p. 616, 'De Sympatheticis mediis', p. 489: 'Optime idcirco semper processum observavi, ubi cum amoroso desiderio, & cura charitatis instituitur remedium: parum autem feliciter succedere, si operans incurius sit, aut ebrius'.

¹¹⁴⁶ Van Helmont, chap. 59, 'A Modern Pharmacopolion or Dispensatory', p. 459, 'Pharmacopolion ac Dispensatorium modernorum', p. 369: 'Exorandus itaque est Pater luminum, ut dignetur nobis dare cognitionem, qualem olim dedit Bezalel & Ooliab, in nominis sui gloriam & nudam proximorum charitatem'. Exod. 31:2-8.

¹¹⁴⁷ Van Helmont, chap. 82, 'Of Things Conceived, or Conceptions', p. 613, 'De conceptis', p. 487.

¹¹⁴⁸ Theophrastus Paracelsus, 'Seven Defensiones', in *Four Treatises of Theophrastus von Hohenheim Called Paracelsus*, trans. by C. Lilian Temkin, ed. by Henry E. Sigerist (London: Johns Hopkins University Press, 1941), pp. 1-43 (pp. 30-31).

Paracelsus does not shy away from calling the physician ‘the God of the microcosm’ whose duty is to imitate God, the great physician.¹¹⁴⁹ Although Van Helmont avoids such stark expressions, it is clear that he shares the same worldview with the Swiss physician.

4.3.4.2. Alchemical Medicine

Van Helmont’s praise of the medical profession is accompanied by a strong rejection of Galenic medicine. In this, he firmly sides with the medical alchemists of his age in condemning Galenic methods as uncharitable and harmful. Instead, Van Helmont looks to other authorities, including the revered but little understood Hippocrates, as well as the medieval alchemists and Paracelsus for guidance. It is in the ‘School of Hermes’ and the art of the adepts that he finds the practice, the philosophy and the true charitable worldview that he is searching for.¹¹⁵⁰

According to his belief, alchemical practice allows the creation of powerful medicine that can be administered particularly to the poor. In addition to plants, Van Helmont approves of the use of metals and minerals in medical preparation, including vitriol, lead and mercury. He believes that, by proper chemical treatment, these too can be transformed into medicine.

As Giglioni has pointed out in his monograph on Van Helmont’s views of disease, the Flemish philosopher believed that illnesses arose from an altered imagination, which corrupts the *Archei* of the body.¹¹⁵¹ By consequence, medicine acts by appeasing and calming the furies or madness of the *Archei*.¹¹⁵² As Van Helmont explains, ‘The Archeus being driven into Fury, being so suddenly touched even with a white wand of Peace, doth fall asleep, or being corrected, doth abstain from his own mischief begun’.¹¹⁵³ This image suggests the efficacy of the appeasing caduceus of Hermes – a metaphor for the alchemical medicine – whereby the *Archeus* is calmed and restored.

Given Van Helmont’s dedication to charity, one may be surprised to find that he gives rather little indications on how to prepare the alchemical medicine. He did not include, like his precursor Croll, a huge compendium of recipes. Perhaps his views of

¹¹⁴⁹ Heinrich Schipperges, ‘Paracelsus and His Followers’, in *Modern Esoteric Spirituality*, ed. by Antoine Faivre and Jacob Needleman (New York: Crossroad, 1992), pp. 154-185 (p. 156).

¹¹⁵⁰ See chapter 3.

¹¹⁵¹ Giglioni, *Immaginazione e malattia*, pp. 97-133.

¹¹⁵² Giglioni, *Immaginazione e malattia*, pp. 135-142.

¹¹⁵³ Van Helmont, chap. 79 ‘Butler’, p. 593, ‘Butler’ p. 472: ‘scilicet Archeus in furorem actus, tam repente vel caduceo attractus obdormiat, vel correctus, absteineat ab incepto sui nocumento’.

charity did not include bringing alchemical recipes out in the open, but his ideals of physician-chemists working together for the good of mankind did have utopian open-access connotations, the kind that his immediate followers in England, the Hartlib circle, would later establish and support.

At the same time, Van Helmont himself was aware of his role as elder alchemist to encourage and guide newcomers in the art of alchemy (*tyrones*, as he calls them). In this sense, he thinks it is his duty to act in a mentorship role and is committed to the idea of a framework of competence whereby beginners would be allowed to advance toward the highest, and hardest to achieve, position of Adept. Van Helmont believed this advancement should be done through one's own efforts, by experimenting and toiling with the art of fire. As he points out, this is a *scientia* that cannot really be taught; it has to be practiced.¹¹⁵⁴

Nevertheless, the secrets of the highest status, such as the *Arbor vitae* or the Philosophers' Stone, commanded silence.¹¹⁵⁵ The best Van Helmont could do was to provide some direction to those mature Adepts who may have sufficient experience and understanding to investigate those secrets.¹¹⁵⁶ At the same time, he accepted that 'other things [...] shall be buried with me; for the World is not capable thereof'.¹¹⁵⁷

In his rank of alchemical knowledge, at the bottom of the ladder Van Helmont placed remedies from simples (*simplicia*), which can be prepared by decoction or distillation; however, their power is feeble.¹¹⁵⁸ An important aspect of Van Helmont's alchemy is his interest in the distillation of plants. Indeed, he affirms that in the vegetable family 'a Remedy doth also lay hid for every Disease'.¹¹⁵⁹

More potent are the sympathetical remedies, such as the famous weapon-salve, whose defense got Van Helmont in trouble with the Inquisition. The sympathetical cures, he continues to believe in his later period, are 'Pledges of divine Love [...] for the comfort of the Miserable and Poor' rather than 'satanic' remedies or superstitions.¹¹⁶⁰

¹¹⁵⁴ Van Helmont, chap. 116, 'The Tree of Life', p. 813, 'Arbor vitae', p. 635.

¹¹⁵⁵ On the complex relationship between openness and secrecy in the Renaissance, alchemy and Paracelsianism, see Pamela Long, *Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance* (London: Johns Hopkins University, 2001), especially pp.143-174.

¹¹⁵⁶ Van Helmont, chap. 116, 'The Tree of Life', p. 813, 'Arbor vitae', p. 635.

¹¹⁵⁷ Van Helmont, chap. 116, 'The Tree of Life', p. 813, 'Arbor vitae', p. 635: 'Caetera autem quae de Cedro sunt, mecum sepelientur. Nam mundus capax non est.'

¹¹⁵⁸ Van Helmont, chap. 116, 'The Tree of Life', p. 812, 'Arbor vitae', p. 635.

¹¹⁵⁹ Van Helmont, chap. 79, 'Butler', p. 593, 'Butler' p. 473: 'in herbacea familia remedium latere pro omni morbos'.

¹¹⁶⁰ Van Helmont, chap. 79, 'Butler', p. 593, 'Butler' p. 473: 'amoris divini emanantia pentacula [...] in miserorum pauperumque solamen'.

At the superior level, and part of the knowledge of ‘Adepts’ lie the Arcana of Paracelsus, which include the tincture of Lily (*tinctura lili*), *Mercurius vitae*, the tincture of antimony, *Mercurius diaphoreticus* (or horizontal gold), the Element of the Fire of Copper (*elementum ignis a cupro*), *lac margaritarum*, the *corollatus*, and the greatest of all, the liquor Alkahest.¹¹⁶¹ These Van Helmont praised for curing such diseases as leprosy, asthma, paralysis, gout and cancer.¹¹⁶² Their action, he explained, was to cleanse or refine the organs of the body.¹¹⁶³ Hence, Van Helmont agreed that Paracelsus had been the vindicator and healer of ‘almost all Diseases’.¹¹⁶⁴

Yet Van Helmont’s ambitions reached even higher than those of Paracelsus, to the ideal of one supreme Universal Medicine. As Van Helmont well knew, Paracelsus never claimed there was such a thing as a unique Universal Medicine, even though he deemed his Arcana to be highly effective.¹¹⁶⁵ Although the history of the rise of the concept is yet to be written, this idea flourished particularly in the Paracelsian and Helmontian circles of the seventeenth century, based on earlier, medieval alchemical views advocated by Pseudo-Lull, Rupescissa and Arnold of Villanova.¹¹⁶⁶ In Van Helmont’s epoch, an important theoretician of this idea was again Croll.¹¹⁶⁷ The true Universal Medicine, Van Helmont believed, was the *Drif*, which had been revealed to him by a mysterious alchemist Butler.

4.3.4.3. *Drif or Lapillus, the Universal Medicine*

Van Helmont maintained that the idea of a unique Universal Medicine was conveyed to him by the mysterious alchemist Butler.¹¹⁶⁸ The latter teased him that ‘unless thou come thitherto, so as to be able by one only Remedy, to cure every Disease,

¹¹⁶¹ Van Helmont, chap. 115, ‘The Arcanums or Secrets of Paracelsus’, pp. 804-805, ‘Arcana Paracelsi’, p. 628. See also chap. 62, ‘The Author Answers’, p. 524, ‘Respondet author’, p. 419.

¹¹⁶² Van Helmont, chap. 115, ‘The Arcanums or Secrets of Paracelsus’, p. 802, ‘Arcana Paracelsi’, p. 626: ‘Fateor lubens, me ex ejus scriptis profecisse multum: illumque potuisse per remedia ad unitatis symbolum ascendentia, sanare lepram, Asthma, Tabem, Paralysin, Epilepsiam, Calculum, Hydropem, Podagram, Cancrum, atque ejusmodi vulgo incurabiles morbos’.

¹¹⁶³ Van Helmont, chap. 115, ‘The Arcanums or Secrets of Paracelsus’, p. 803, ‘Arcana Paracelsi’, p. 627.

¹¹⁶⁴ Van Helmont, chap. 115, ‘The Arcanums or Secrets of Paracelsus’, p. 802, ‘Arcana Paracelsi’, p. 626: ‘Atque hactenus fuit morborum fere omnium vindex, & sanator’.

¹¹⁶⁵ Van Helmont is willing to grant the arcana the title of ‘universal medicines’ but it is clear that he is interested in the one unique medicine that can cure all diseases. See Van Helmont, chap. 115, ‘The Arcanums or Secrets of Paracelsus’, p. 804, ‘Arcana Paracelsi’, p. 628.

¹¹⁶⁶ The topic of the Universal medicine became an important Paracelsian theme at the turn of the 1600, with the works of Joachim Tanckius, Johann Diennehm and Oswald Croll. See Thorndike, *A History of Magic and Experimental Science*, VII, 161.

¹¹⁶⁷ See above, chapter 3. Croll makes a passionate defence of Universal Medicine in chapter 6 of his ‘Admonitory Preface’, pp. 179-226.

¹¹⁶⁸ Van Helmont, chap. 79, ‘Butler’, p. 588, ‘Butler’, p. 468. However, it is hard to believe that Van Helmont was not aware of the current of thought on behalf of the Universal Medicine, of which we have seen Croll to be a foremost proponent.

thou shalt remain in thy Young Beginnings, however old thou shalt become'.¹¹⁶⁹ Yet Butler's words by themselves were insufficient to sway Van Helmont, who sought empirical demonstration of such a strong statement. He hence proceeded to carefully document the results he observed in regards to Butler's medicine, the 'little Stone' (*Lapillus*). The *Lapillus* was effective, he found, either as an ointment or by simply touching it with the tip of the tongue.¹¹⁷⁰ Van Helmont recorded the positive effect the *Lapillus* had on several persons, including on himself.

Empirical observation was, however, incomplete. Van Helmont sought support for the concept of Universal Medicine in the Bible. This he found first in Ecclesiasticus (Jesus Sirach) 38:8, a book considered apocryphal by the Protestants but accepted as having deuterio-canonical status in the Catholic church.¹¹⁷¹ The Latin Vulgate reads 'unguentarius faciet pigmenta suavitatis, et unctiones conficiet sanitatis, et non consummabuntur opera ejus', translated in the Douay-Rheims Catholic Bible as 'of these the apothecary shall make sweet confections, and shall make up ointments of health, and of his works there shall be no end.' Van Helmont interprets this to mean that the 'pigments' (*pigmenta*) are medicines whose power is infinite, hence universal.¹¹⁷² Thus, he later states that the *Lapillus* of Butler is referred to in the Sirach verse.¹¹⁷³ A second verse he discovers in the Bible in support of Universal Medicine originates from another deuterio-canonical book, the Book of the Wisdom of Solomon, where it is stated that 'For he created all things that they might be: and he made the nations of the earth for health: and there is no poison of destruction in them, nor kingdom of hell upon the earth'.¹¹⁷⁴

Van Helmont argued that, as God was fundamentally 'divine goodness', He was the true author of medicine. In essence, medicine had to reflect both the power and the good will of God. Since he strongly believed that God is One and omnipotent, Van

¹¹⁶⁹ Van Helmont, chap. 79, 'Butler', p. 588, 'Butler', p. 468: 'Charissime, nisi eo devenias, quod unico remedio queas curare quemlibet morbum, manebis in tyrocinio, utcunque senex evaseris'. This remark interestingly highlights the existence of a level of competition amongst the alchemists of Van Helmont's age.

¹¹⁷⁰ Van Helmont, chap. 79, 'Butler', p. 592, 'Butler', p. 472.

¹¹⁷¹ Van Helmont, chap. 79, 'Butler', p. 591; 'Butler', p. 471.

¹¹⁷² Van Helmont, chap. 79, 'Butler', p. 592, 'Butler', p. 472: 'Ast loquor hoc loco de pigmento, cujus opera non consummabuntur; nec erit morbus, aut venenum illi resistens, sive ut habet Textus'.

¹¹⁷³ Van Helmont, chap. 79, 'Butler', p. 593, 'Butler', pp. 472-473: 'an non poterit lapillus, oleum suo contactu imbuere, ut queat illitum subter se sanare morbum latentem? Siquidem nil aliud his denotatur verbis: Unguentarius conficiat pigmenta suavitatis, nec consummabuntur opera ejus'. See also chap. 79, 'Butler', p. 593, 'Butler' p. 473: 'Butlerus scilicet vi propemodum infinita aliquot myriads quotannis sanare posset, persuasit mihi Textus, quod opera unguentarii illius non consummabuntur'.

¹¹⁷⁴ Douay-Rheims Bible, Book of Wisdom 1:14; The Latin Vulgate reads 'Creavit enim, ut essent Omnia: et sanabiles fecit nationes orbis terrarum, et non est in illis medicamentum exterminii, nec inferorum regnum in terra'. Van Helmont, chap. 79, 'Butler', p. 592, 'Butler', p. 472.

Helmont inferred that the best medicine had to be small in quantity and swift in action.¹¹⁷⁵ Hence, he concluded, there must be one supreme remedy that can cure all diseases, and this medicine should be so powerful that ‘one only little Stone is sufficient for many ten thousands’.¹¹⁷⁶

There is another type of proof of Universal Medicine that Van Helmont adduced, which was the empirical power of poisons. He noted that the venom of a viper or the saliva of an enraged dog killed instantly no matter the quantity.¹¹⁷⁷ If poisons could do such damage in such small amount and by contact alone, there must be antidotes: powerful remedies that could restore health rather than kill. The remedies bestowed by God had to match the diseases, which were the result of the Original Sin.¹¹⁷⁸

Having thus established the theoretical possibility of a Universal Medicine, Van Helmont proceeds to unravel how this might be obtained. At this point, he reverts to Christian alchemical imagery to maintain that the body of this supreme medicine must first be destroyed and then resurrected in a glorified form: ‘that Remedy doth require [...] that it be a Body once raised up, and once destroyed, and afterwards as it were after its Resurrection, after some sort glorified’.¹¹⁷⁹ The death of the body, he argues, must be violent rather than natural, in order to preserve the virtues within.¹¹⁸⁰ Once freed from its corporeal bonds, the body becomes volatile and must be sublimed twice or three times.¹¹⁸¹ The artist must then unite this volatile spirit with a ‘friendly Body’; the result is a spiritual, or glorified body. The process increases its power a thousand fold; here Van Helmont seems to refer to the process of multiplication of the Stone.¹¹⁸² This power he compares with that of a ‘principiating’ Ferment, which is both constant and able to

¹¹⁷⁵ Ibid. He is adamant that in the Universal Medicine the quality is more important than quantity, see also p. 594, p. 474.

¹¹⁷⁶ Van Helmont, chap. 79, ‘Butler’, p. 592, ‘Butler’, p. 471.

¹¹⁷⁷ Van Helmont, chap. 79, ‘Butler’, p. 594, ‘Butler’ p. 474.

¹¹⁷⁸ Van Helmont, chap. 79, ‘Butler’, p. 591, ‘Butler’, p. 471. On the theme of God as divine goodness see above, chap. 4.1.

¹¹⁷⁹ Van Helmont, chap. 79, ‘Butler’, p. 592, ‘Butler’, p. 472: ‘istud remedium inprimis requirere, ut sit corpus semel resuscitatum, semelque destructum, ac deinde quasi a resurrection quodammodo glorificatum’.

¹¹⁸⁰ Van Helmont, chap. 79, ‘Butler’, p. 595, ‘Butler’ p. 474: ‘Requirat Drif, ut sit e corpore naturali quidem, metallica benignitatis participe, sed quod antea, prius sit per mortem obsequens, apertumque. Non quidem cum extinction suarum virium, velut sponte defuncti cadaveris instar: sed retentis suarum dotium beneficiis, sit ab Artifice reseratum, repagulis liberum, ac velut resuscitatum’.

¹¹⁸¹ Van Helmont, chap. 79, ‘Butler’, p. 595, ‘Butler’ p. 475: ‘Adeoque debuit resurrexisse velut a morte omnino volatile, atque spirituale, sive bis terve sublimari’.

¹¹⁸² Van Helmont, chap. 79, ‘Butler’, p. 592, ‘Butler’, p. 472: ‘Ast in remedio resurgente a morte, benefice sui simplicis bonitas adaugetur in millecuplum’.

extend its virtues to surrounding bodies by the means of its active instrument, the odour.¹¹⁸³

Having established this criterion, Van Helmont proceeds to identify the source of the Universal Medicine. He dismisses the vegetal and animal kingdoms as he considers that they are too frail in the fire and easily annihilated by it; if perchance they 'rise again', this is as a different being than their predecessor.¹¹⁸⁴ It is not that he disputes the power of plant medicine; nevertheless, he does not believe that herbs could 'ascent unto a universal and renowned Government over every Disease'.¹¹⁸⁵

Consequently, and somewhat predictably, Van Helmont arrives at the metallic kingdom, which contains the secret of the *Lapillus*. He argues that the power of minerals and metals originate from an original metallic faculty (*vis metallica*) which in its supreme form can be found in gold, silver, and mercury.¹¹⁸⁶ Still, he points out, powerful medicines can also be extracted from the other four metals, on the condition that the poisonous sulphur within them is rendered 'familiar', or friendly, to the human being.¹¹⁸⁷

In the traditional alchemical fashion, Van Helmont does not identify the correct metal to be used for the Universal Medicine, for fear 'I shall prostrate Roses before Swine'.¹¹⁸⁸ This, his decision to rename Butler's *Lapillus* as '*Drif*' and other tantalizing details, show that Van Helmont believed himself to have reconstituted Butler's cure. *Drif*, he further says, is obtained by distilling a salt from the *caput mortuum* in the manner of the distillation of sea salt or by separating the mercury from the sulphur in the first being of copper (*ens veneris*).¹¹⁸⁹ Yet it is not clear from Van Helmont's description whether the coveted *Drif* should be obtained from copper, or if he is simply making an alchemical analogy.

In envisioning an Universal Medicine, alternatively called Butler's *Lapillus* or *Drif*, Van Helmont was drawing heavily on the practice, language and vision of medieval alchemy. His views here are coloured by traditional descriptions of the Philosophers' Stone. He undoubtedly prefers the religious alchemical language that

¹¹⁸³ Van Helmont, chap. 79, 'Butler', p. 596, 'Butler' p. 475. On the importance of principiating Ferments see above, chapter 4.2 On Nature.

¹¹⁸⁴ Van Helmont, chap. 79, 'Butler', p. 592, 'Butler', p. 472: 'Consideravi denique, hoc remedium non esse de monarchia vegetabili...utpote quae instar animalium, facile sub artista moriuntur; vix tamen a morte resurgunt, cum sub ignis tentamine vel prorsus pereant, viresque priores omittant: vel si quasi resurgere videantur, nova tamen sunt potius entia, a priorum ac parentum orbita omnino seclusa'.

¹¹⁸⁵ Van Helmont, chap. 79, 'Butler', p. 593, 'Butler' p. 473: '...nequaquam autem ascendere ad universalem augustamque in omnem morbum gubernationem'.

¹¹⁸⁶ Van Helmont, chap. 79, 'Butler', p. 594, 'Butler' p. 473.

¹¹⁸⁷ Van Helmont, chap. 79, 'Butler', p. 594, 'Butler' p. 473.

¹¹⁸⁸ Van Helmont, chap. 79, 'Butler', p. 595, 'Butler' p. 474: 'ne rosas ante porcos prostravero'.

¹¹⁸⁹ Van Helmont, chap. 79, 'Butler', p. 596, 'Butler' p. 475.

associated the lapis with the glorified body and even with Christ. Although he does not directly say so, the image of the tortured and killed metallic body which is then glorified reminds one of the traditional lapis-Christ association.¹¹⁹⁰

4.3.4.4. *The Philosophers' Stone and Chrysopoeia*

The commitment to the Universal Medicine conceived in traditional alchemical terms raises the question of Van Helmont's views of *chrysopoeia*, or metallic transmutation. His writings show that not only did he believe in the Philosophers' Stone, but he also manifested a keen interest in making it.

Although it is clear that Van Helmont supported *chemiatria* over *chrysopoeia* out of Christian concerns, he may have not necessarily distinguished between the two. The description of the Universal Medicine as a 'small Stone', its provenance from metals, and the use of overt medieval alchemy for its process of preparation, suggests the possibility that Butler's 'powder' (*pulvere*) might have both medicinal and *chrysopoetic* properties.¹¹⁹¹ Nevertheless, the *chrysopoetic* properties of the *Drif* are never spelled out. It is also unclear whether we are to view the *Drif* as the Philosophers' Stone of the medieval alchemists, or something analogous to it.

The matter is further complicated by a statement Van Helmont made in the treatise 'Arcana Paracelsi', where he rejected mineral remedies as sources of long life. Thus, he affirmed that he could not be easily persuaded that the Philosophers' Stone could 'vitally be united with us', since it was indissolubly homogeneous.¹¹⁹² Hence Van Helmont rejected the Philosophers' Stone as *Arbor vitae*, or medicine of long life; however, it is less clear that this statement is meant to be read that the *lapis philosophorum* was not useful for medical purposes. Indeed, even the thought of associating the *lapis* with medicine suggests that he entertained at least the possibility that this might be so. We must not forget that Van Helmont was aware and supportive of the Pseudo-Lullian tradition, which upheld the dual virtue of the Philosophers' Stone

¹¹⁹⁰ See above a brief discussion of this, chapter 3.

¹¹⁹¹ This association would not be surprising, since the Philosophers' Stone had long been called medicine.

¹¹⁹² Van Helmont, chap. 115, 'The Arcanums or Secrets of Paracelsus', p. 805, 'Arcana Paracelsi', p. 628: 'Imo neque unquam facile inducar ut credam, lapidem philosophorum nobis vitaliter uniri posse, propter sui summe immutabilem substantiam, incredibiliter fixam contra ignem torturas, indissolubiliter homogineam. Id est, propter separationis, destructionis, & digestionis omnimodam impossibilitatem. Tantum abest, quod ad vitam longam faciat.'

as having both *chrysopoetic* and *chemiatric* properties.¹¹⁹³ In any case, the affirmation cannot be construed as a rejection of the equality between the *Drif* and the Philosophers' Stone.

Whether or not Van Helmont saw the *Drif* as the *lapis philosophorum*, there is proof in a letter to Mersenne that he was interested in making the Stone. In 1631, the French philosopher assailed him with an entire battery of questions regarding the philosophers' stone: whether he knows what the matter of the stone is, what is the philosophical Sublimation, what is permanent oil, what is the fire that vivifies metals etc.¹¹⁹⁴ This incidentally suggests that Van Helmont had acquired something of an alchemical reputation even during his lifetime, before the *Ortus* was published.

To Mersenne's questions Van Helmont responded simply that all the above were the Mercury of the Philosophers.¹¹⁹⁵ To this cryptic reply, he further added that, in accordance with the alchemical philosophers, the first matter of the stone was not vulgar gold or any other metal, but a 'medium between metals and mercury'.¹¹⁹⁶ He immediately accompanied this statement with a qualified negation that he has ever made the Philosophers' Stone. His rhetoric is very subtle. First of all, Van Helmont affirms that it is inappropriate for anyone to discuss something he had not made, so the discussion should be put to rest. Moreover, he adds, if he had perchance made it, he would talk about it even less.¹¹⁹⁷ It is clear from this that Van Helmont was uncomfortable talking about the Philosophers' Stone. To support his reluctance, he quotes from one of his favourite medieval alchemists, Raymond Lull, according to whom those that have not achieved the Philosophers' Stone are called fools (or idiots) and talk likewise, but those who have, are called sages and do not talk at all.¹¹⁹⁸ Consequently, he adds, he hopes to one day make the philosophers' stone himself to escape the title of fool. This rather mysterious reply suggests, at least at face value, that Van Helmont had not made the Philosophers' Stone by 1631. Yet the letter also shows that he was preoccupied with the subject, whether or not he associated Butler's *Lapillus* with the *lapis philosophorum*.

¹¹⁹³ On this subject, see Michela Pereira, 'Teorie dell'Elixir nell'alchimia latina medievale', *Micrologus*, 3 (1995), 103-148 (pp. 135-146).

¹¹⁹⁴ '21 Février 1631', p. 118. Theoretically these questions come from Mersenne's alchemical aide, but it is more likely that they belong to Mersenne himself.

¹¹⁹⁵ '21 Février 1631', p. 118.

¹¹⁹⁶ '21 Février 1631', p. 119.

¹¹⁹⁷ '21 Février 1631', p. 119: 'Et disputer de la pierre me semble malseant pour un chacun qui ne l'a faite...C'est pourquoy je ne dispute de la pierre volontiers, veu que tandis que je ne l'ay, je dispute par opinion, et lorsque je l'aurois, je n'en voudrois parler pourtout.'

¹¹⁹⁸ '21 Février 1631', pp. 119-120; the term Van Helmont uses is the French 'sot'; one wonders if there is a link with Cusanus's term of idiot.

In the treatise ‘The Tree of Life’, written around ten years later, Van Helmont makes a further surprising statement: he had made a projection of the Philosophers’ Stone in front of a large audience.¹¹⁹⁹ Having made such a tantalising claim, Van Helmont immediately distances himself from stating that he made the Stone himself. In fact, he points out afterwards, an unnamed alchemical adept had given him the gold-making powder. One may be tempted to think this was the same Butler Van Helmont talked about, except the Flemish philosopher now argues that this one was only ‘a Friend of one evening’s acquaintance’.¹²⁰⁰ Hence his point is to re-affirm his belief in the Stone rather than to argue that he has made it.

What strikes the reader when perusing Van Helmont’s accounts of *chrysopoeia* is their opaque and reserved style. He is being deliberately diffident about the subject, as the Mersenne correspondence amply proves. It is clear that Van Helmont is interested in *chrysopoeia*, but is averse to discuss details. He is, however, convinced of its existence and even uses it as a symbol of the Eucharist.¹²⁰¹ Given his tendency to demand silence on the subject, one cannot determine if Van Helmont believed he had made the Philosophers’ Stone, and had thus escaped the Lullian title of ‘fool’.

4.3.4.5. *The Arbor Vitae and the Alchemical Prolongation of Life*

If the *Drif* is a universal panacea for disease, whether hidden or manifest, it is still not the greatest medicine that can be obtained. Van Helmont thinks that of all medical pursuits, that which leads to prolongation of life is the most meaningful. The supreme medicine is hence the *Arbor Vitae*, the Tree of Life. One may be tempted to argue at this point that the *Drif* in itself extends life by taking away diseases, hence *Drif* is already an *Arbor Vitae*. In fact, Van Helmont made a clear distinction between curing illness and prolonging life. By postulating that death is fundamentally different to disease, he argued that healing a disease does not stave off the decline of vital powers that result in death.¹²⁰² Hence Van Helmont distanced himself from Paracelsus’s

¹¹⁹⁹ Van Helmont, chap. 116, ‘The Tree of Life’, p. 807, ‘Arbor vitae’, p. 630.

¹²⁰⁰ Van Helmont, chap. 116, ‘The Tree of Life’, p. 807, ‘Arbor vitae’, p. 630: ‘Istud autem aurum dedit mihi vir peregrinus, unius vesperi amicus’. On some popular histories of transmutation in the period see also Holmyard, *Alchemy*, pp. 128-134.

¹²⁰¹ See above, chapter 4.1.9.

¹²⁰² Van Helmont, chap. 112, ‘The Occasions of Death’, p. 753, ‘Mortis occasiones’, p. 591: ‘Enimvero tametsi nullo infestarent infirmitates, non tamen nobis mors desineret in dies, viam ad suum introitum sternere. Nam etsi sanitas vitam, ut basin respiciat: non tamen vita sanitatem includit’.

medical *arcana* which, he believed, could not extend life but merely cure diseases.¹²⁰³ Even Paracelsus's celebrated *elixir proprietatis*, which renewed the hair, nails and teeth of old persons, did not actually qualify as a medicine of long life.¹²⁰⁴

Instead, Van Helmont links the concept of the extension of life with Biblical speculation on the Tree of Life. Adam, Van Helmont informs us, would have lived forever with the help of the Tree of Life, which re-vitalised his body.¹²⁰⁵ Yet, once he had sinned and was cut off from the Tree, he was destined to die. At first, Adam and his direct descendants, the Patriarchs, lived hundreds of years due to the effects of the Tree of Life, but in time due to the loss of vigor, injuries and diseases, the lifespan of subsequent generations was reduced.¹²⁰⁶

In the Christian tradition, the Biblical Tree of Life was often interpreted allegorically, often symbolising the cross of Jesus Christ, the Eucharist or Christ himself.¹²⁰⁷ Yet, at least beginning with the Franciscan friar and alchemist Roger Bacon, the Tree of Life was also conceived as an alchemical medicine which could bestow long life.¹²⁰⁸ It so figured in such early modern alchemical works as Giovanni Bracesco's *Dialogue on the Tree of Life* (1561) and Fabre's *Alchymista Christianus* (1632).¹²⁰⁹

Following in this tradition, Van Helmont viewed the Tree of Life as a real medicine that could be extracted through alchemical means. It was in fact the most desirable of alchemical remedies, since it could partially reverse the effects of the Fall of Man. He believed that achieving it was destined only for chosen ones: 'the attainment of the Tree of Life is most difficult, of much Labour, and revealed unto few'.¹²¹⁰ He obviously believed himself to be one of those rare adepts who attained that knowledge. The *Arbor Vitae* was undoubtedly the noblest of enterprises and a supreme *scientia* that allowed him to claim himself a master, and teacher of the true Christian Philosophy.¹²¹¹

¹²⁰³ Van Helmont, chap. 112, 'The Occasions of Death', p. 753, 'Mortis occasiones', p. 591. The complexity of Van Helmont's thought on long life deserves a more in-depth treatment, which is, alas, beyond the scope of this dissertation.

¹²⁰⁴ Van Helmont, chap. 125, 'The Arcanums or Secrets of Paracelsus', p. 803, 'Arcana Paracelsi', p. 626.

¹²⁰⁵ Van Helmont, chap. 109, 'Life', p. 745, 'Vita', p. 586.

¹²⁰⁶ Van Helmont rejects Paracelsus's speculation that Adam prolonged his life by art, as he believed the *scientia* was lost at the moment Adam ate the apple.

¹²⁰⁷ See Paul Morris and Deborah Sawyer, *A Walk in the Garden: Biblical, Iconographical and Literary Images of Eden* (Sheffield: Sheffield Academic Press, 1992), pp. 134, 136; 176-178.

¹²⁰⁸ Roger Bacon believed, like Van Helmont, that the medical *Arbor vitae* could extend life but not bestow immortality. See Leah DeVun, *Prophecy, Alchemy and the End of Time*, pp. 85-86.

¹²⁰⁹ Bracesco, 'Dialogo Lignum Vitae', pp. 3-47.

¹²¹⁰ Van Helmont, chap. 116, 'The Tree of Life', pp. 808-809, 'Arbor vitae', p. 631.

¹²¹¹ There are several passages where Van Helmont maintains that the knowledge of long life was rare even amongst adepts (Paracelsus not knowing it), and that it was revealed unto him. See for instance, chap. 114, 'The Nourishing of an Infant for Long Life', p. 797, 'Infantis nutrition ad vitam longam', p. 622, 'Sed doctrina vitae longae valde est heteroclita: scioque illam inter divinitus electos filios artis usque

Van Helmont kept as best as he could within the bounds of orthodoxy in his opinions on prolongation of life. He maintained that the medical Tree of Life does not, for instance, free man from passion, pain or death, as the Paradise Tree did.¹²¹² The reason is not the potency of the medicine, but the fact that man has acquired Original Sin, which the Tree of Life cannot erase.¹²¹³ No medicine can mitigate our fallen nature except for Christ.¹²¹⁴

To discover the secret of the Tree of Life, Van Helmont explored the mineral, animal and vegetable kingdom. His alchemical investigations into these made him conclude that the *Arbor vitae* must originate from a tree that is perennial and odoriferous.¹²¹⁵ However, the species of the tree was only revealed to him in a dream: the Tree of Life was nothing other than the Cedar of Lebanon, mentioned several times in the Scriptures.¹²¹⁶ Van Helmont believed it was only the Cedar of Lebanon of all plants that survived Noah's Flood, and it was in fact the very wood the Ark was made out of.¹²¹⁷ Van Helmont shows from the Scriptures that the ancient Hebrews revered the Cedar, and even built the doors of the Temple of Solomon from the tree. Moreover, he considered that the Cedar was a symbol of the Virgin Mary.¹²¹⁸

Van Helmont was aware that other alchemists had unsuccessfully tried to extract medicine out of the Cedar. This was, he claimed, due to using the wrong method. First of all, Van Helmont argued that not all parts of the Cedar could be used, but only the trunk; the rest he deemed too frail for use.¹²¹⁹ Secondly, he dismissed ordinary distillation as a method of extracting the Tree of Life out of the Cedar. Instead, the mysterious Liquor Alkahest, which reduced all things into their first being (*primum ens*) without any diminishing of virtue, was to be used.¹²²⁰ In other words, an alchemist had to first master the Alkahest before attempting to extract the Tree of Life from the Cedar. Van Helmont complemented this with a description of how the process must be undertaken; needless to say, the recipe was useless without knowledge of the Alkahest. Van Helmont himself admits that the preparation of the Alkahest was an abstruse

in occultatis permansuram'; chap. 116, 'The Tree of Life', p. 811, 'Arbor vitae', p. 633: 'Sed ejus praeparatio, omnium illorum, quae subter laborem Sophiae cadunt, est longe difficilissima'.

¹²¹² Van Helmont, chap. 109, 'Life', p. 746, 'Vita', p. 587.

¹²¹³ Van Helmont, chap. 109, 'Life', p. 746, 'Vita', p. 487.

¹²¹⁴ Van Helmont, chap. 116, 'The Tree of Life', p. 809, 'Arbor vitae', p. 632.

¹²¹⁵ Van Helmont, chap. 116, 'The Tree of Life', pp. 808-809, 'Arbor vitae', p. 631.

¹²¹⁶ Van Helmont, chap. 116, 'The Tree of Life', p. 810, 'Arbor vitae', p. 633.

¹²¹⁷ Van Helmont, chap. 116, 'The Tree of Life', p. 810, 'Arbor vitae', p. 633.

¹²¹⁸ Van Helmont, chap. 116, 'The Tree of Life', pp. 810-811, 'Arbor vitae', p. 633.

¹²¹⁹ Van Helmont, chap. 116, 'The Tree of Life', p. 810, 'Arbor vitae', p. 633.

¹²²⁰ Van Helmont, chap. 116, 'The Tree of Life', p. 811, 'Arbor vitae', p. 633.

subject, and that it was only granted to some.¹²²¹ It was hence unsurprising that the next generation of alchemists were obsessed first and foremost with finding the mysterious Alkahest, as numerous treatises and correspondence on this subject attest.

The ‘Tree of Life’ is the last treatise that was included in the *Ortus medicinae*; it hence presented the most powerful and meaningful result of a lifetime dedicated to a practice of mystical knowledge and charity. Due to his commitment to Christian philosophy, Van Helmont believed that the prolongation of life was a more noble and charitable knowledge than any other, and that this had to be duly imparted, to the extent permitted, to other alchemists. He was, of course, keenly aware that he would be attacked as a quack; to this he simply replied that ‘God hath known that I write those things which I know to be true’.¹²²²

4.3.5. Conclusion

For Van Helmont, a key pillar of authentic ‘Christian Philosophy’ is knowledge of Man as image of God and his place as a middle being between God and Nature. Consequently, Man defines his existence through the relationship he establishes with that which is higher: God and the Trinity, and that which is lower, created Nature.

Most important to Van Helmont is the relationship with God. Its substance is laid out mainly in the Bible, hence by sacred revelation. Within the Scriptures, one may find the entire history of man, and can understand the past, present and future condition of humanity. Yet the Bible is not the only path for the knowledge of God. Like many Paracelsians, Van Helmont firmly believed that knowledge of God is also attainable through direct experience, which is a mystical comprehension of the self and by extension, of God as its Archetype. The process of self-knowledge reveals and confirms the truth of Scripture, which is that Man is the true Image of God. Through knowledge of self, one can also reach an understanding of God, at least in so far as He chooses to be revealed.

The mystical union is both the mirror, and the kiss of God, and this divine experience bestows knowledge upon the loving mind. True knowledge can only originate from a close encounter with God, whereby the soul transforms itself into

¹²²¹ Van Helmont, chap. 116, ‘The Tree of Life’, p. 813, ‘Arbor vitae’, p. 635: ‘Requiritur Alkahest. Quod non datur putantibus: sed solis scientibus, & quidem duplatis’.

¹²²² Van Helmont, chap. 116, ‘The Tree of Life’, p. 812, ‘Arbor vitae’, p. 635: ‘Novit Deus, quod scribam quae scio vera’.

God's reflection. By becoming the image of God the mind understands itself, God, and His Creation.

Self-knowledge also opens up the possibility of understanding of Nature. We have seen that the relationship with Nature is fundamentally expressed by the Genesis account of Adam who knew the names of all things. Thus, once man discovers himself as true Adam, he is further able to understand Nature. This is achieved by a mystical experience that reveals the essences of all things.

This acquired *scientia* means little if it is not used to help one's neighbour. Knowledge is useless for salvation; however, it acquires new meaning as part of a Christian duty to help others. Charity hence justifies the pursuit of knowledge and allows the knower to increase the Grace bestowed on him. The highest form of charity for Van Helmont consists of medicine, and this medicine must be rooted in alchemical practice. Alchemy offers the key to expelling diseases and to extend life. It is through the 'attainment of great secrets of nature' that the physician can reverse some of the consequences of the Fall of Man and extend life to that of the Patriarchs.¹²²³

It is clear that for Van Helmont, alchemy, and particularly medical alchemy, was the loftiest outcome of the process of self-knowledge. Medical alchemy was truly 'the end of Wisdom' for him, as it translated in the form of remedies the highest concepts of Christian Philosophy as he saw it. Unsurprisingly, Van Helmont calls alchemy (or the 'adeptical' science) the true 'labour of Wisdom' (*labor Sophiae*) and 'the glass of true Understanding'.¹²²⁴

¹²²³ Van Helmont, chap. 3, 'The Hunting or Searching Out of the Sciences', p. 16, 'Venatio scientiarum', p. 16.

¹²²⁴ Van Helmont, chap. 3, 'The Hunting or Searching Out of the Sciences', p. 22, 'Venatio scientiarum', p. 22.

Chapter 5: Conclusions

5.1. The Essence of Van Helmont's Christian Philosophy

In chapter 40 of the *Ortus*, 'The Compleating or Perfecting of the Minde' ('Mentis complementum'), Van Helmont referred to himself as 'a Bell, calling the Faithful together unto the Temple, which it self remains in the top of the Tower abroad'.¹ This pointed imagery suggests that he viewed his life as a mission to reform Christian thought by introducing a new perspective of the natural world and Man's position in it. Thus, Van Helmont firmly believed he had been called to create a 'Christian Philosophy' that would combine Christian religion and natural philosophy in a harmonious whole. To do so, he had to refute the tenets of the 'heathen' Aristotelianism, which in his mind was not reconcilable with Christian beliefs.

Van Helmont's 'Christian Philosophy' guarantees that God is at the core of all that is, including Nature and Man. In his view, God in His essence is absolutely transcendental and unknowable. He could have chosen to remain as such for ever, but it 'pleased' Him to express Himself by creating the world. In this sense, His 'divine goodness' and omnipotent will are the primordial aspects of divinity. Van Helmont would not concur with those interpretations that saw Nature as the 'image' of God, but it is clear that for him the Universe was permeated by the divine Logos, and hence expresses the divine attributes of Goodness, Truth and Unity.

Van Helmont's views of the world begin with the Christian doctrine that the Universe was the result of the mind and sheer will of God. The primordial Creation happened in the beginning of time and can only be known by the means of the revealed Word of the Bible, which tells us how the world and Man came to be. Yet Scripture is no easy read: there are mysteries within it that require clarification. Like many Paracelsians, Van Helmont believed that Genesis hid secrets that could explain the nature of matter and open a new era for natural philosophy. It was hence only through proper interpretation that one could unveil the mystery of the original make-up of the Universe and the building blocks out of which everything was formed.

¹ Van Helmont, chap. 40, 'The Compleating or Perfecting of the Minde', p. 314, 'Mentis complementum', p. 254.

The greatest secret, Van Helmont believed, was found in the mysterious word ‘schamayim’, which he interpreted to mean ‘waters’. In this sense, he followed a strong alchemical tradition that viewed all bodies to be the offspring of water. The Scripture was in essential harmony with the alchemical experience of reducing solid matter into a liquid or volatile state. Could Van Helmont have been influenced by the Paracelsian alchemical philosophy to read the Biblical word, usually translated as fire-water, as simply ‘water’? One is left to speculate, as Van Helmont would never admit that alchemical ideas might have taken the precedence over the Scriptures.

By positing the fundamental constituent of all bodies to be water, Van Helmont was essentially maintaining that all things, even the most solid, can be transformed. The alchemical maxim, ‘*solve and coagula*’ stood at the basis of his philosophy. It is true that he did not share the naïve belief that all transformation was a good thing and, on the authority of Hippocrates, actually criticised those alchemists who thought that Man should intervene in all courses of Nature. He also mistrusted the universal application of fire in alchemy, since he essentially viewed fire as the ‘death’ of creatures. Fire with the help of Ferment could stir up new beings, but these were not necessarily better than the previous ones. Hence, the use of fire in an alchemical process had to be weighed carefully.

By comparison, Van Helmont was much more favourable to the reduction of bodies by means of ‘acid-like’ substances, including Circulate Salt and the Alkahest. He believed that reducing matter into its ‘first being’ of water could allow the creation of powerful medicines, including the Universal Medicine and the Tree of Life. The pattern he used was strongly alchemical: beings must first ‘die’, or lose their ‘*ens*’, in order to be resuscitated in better bodies. The difference between fire and the Alkahest lay in the ability of the latter to preserve the *semina* of the bodies, and hence recover their ‘pure’ state. The process is similar to that whereby Mercury is deprived of its Sulphur and becomes ‘immortal’.

Closely reading Genesis, Van Helmont drew yet more detail in regards to the make-up of the world. The elements, water and air, were naturally passive: in the absence of spirit, they remained *tohu va-bohu*, empty and void. Van Helmont views them as the framework, or scene, on which the ‘tragedy’ of existence takes place. They cannot, and would not be changed, except by the intervention of *semen*. This belief in the fundamental changelessness of the elements leads Van Helmont to postulate the principle of conservation of matter, whereby its quantity remains the same in time. Therefore the changes that water undergoes under the influence of heat (as ice, liquid,

vapour and Gas) are only apparent, not substantial changes: there is no real transmutation involved.

Therefore, in order for anything to exist, God had to implant something that can effect actual transmutation, an active spirit in the water. Many Paracelsians tended to name the active principle the *spiritus*, associating it with the Genesis verse according to which ‘the Spirit of the Lord moved across the face of the waters’. Van Helmont shared in this belief, as revealed in ‘De Spadanis’, in *Speculum philosophicoiatron* and ‘Tractatus de Lithiasi’. Like many other Paracelsians, he also believed in the ‘soul of the world’ or ‘spirit of the world’, which he called the *magnale*, the creator and sustainer of life.

However, in the late *Ortus*, this universal spirit becomes less prominent. Instead, Van Helmont prefers the Augustinian account, according to which, at the beginning of time, God had sown the *rationes seminales* in matter. These *rationes* the later Van Helmont calls the ‘principiating’ Ferments; they are powers implanted in specific places that initiate generation. They do so by putrefying matter, ‘penetrating’ it with its odour and planting a corporeal *semen* of transmutation in its bosom. This primordial process of generation is proven by the process of spontaneous generation, which appears to be the archetype of the sexual one, rather than vice-versa.

It is only within the *semen* that the reader finally re-discovers the *spiritus* again, in the garb of the governor-spirit of Paracelsus, the Archeus. For some Paracelsians the Archeus was a universal spirit, but for Van Helmont its role is more subdued. The Archeus as an *aura* can be found in all beings, but it is confined within a material ‘husk’, be it the *semen* or the body. Its power is also restricted by the pre-existing divine plan, the archetype or seal of the body. Hence, all that the Archeus does is translate this ‘seal’ – which Van Helmont describes as an idea, or an image – into reality. In this sense, the Archeus lies at the boundary between matter and spirit, a liminal figure made up of very fine matter (*pneuma*) which can transform potentiality (spirit) into actuality (matter). This role is preserved after the birth of the individual, when the archei continue to regulate the life of the being they inhabit. As before, this means translating images, elaborated by the vegetative or sensitive soul, into actuality.

Yet, with all its power, this Archeus, in the Helmontian vision, is only a servant of the soul. The scheme is Galenic-Aristotelian in spite of Van Helmont’s opposition: spirits, being quasi-corporeal must obey the soul, which is incorporeal. The soul is the true ruler of the body as its form. The attention of Van Helmont is firmly concentrated on this form, which he understands as the entelechy. The form, he further claims, is the

‘life’ of the being. Van Helmont associated ‘existence’ with ‘life’: coming into being is then the same as obtaining a ‘life’. This life is not necessarily a formed soul, but a being in act. Hence the element of ‘water’ does not have a soul, but it does have ‘life’. This life manifests itself by feeling and even will, since water both ‘desires’ and ‘chooses’ to receive the active spirit within itself.

Van Helmont envisioned life as an actual entity, a light. In doing so, he creatively employed a rich tradition of light symbolism that was present in Christian and philosophical thought, and above all Paracelsus’s concept of the ‘Light of Nature’. Van Helmont’s formal lights are in some sense carriers of information, since they bestow the appropriate species on each individual. They also play other roles: they are guarantors of intelligibility (light being similar to the logos) and mediators of the communication that takes place at a fundamental level between all living things.

If forms are ‘lights’, it is clear that they must originate from some ultimate source of lights, just as the rays of the Sun originate from it. It is here that Van Helmont makes one of his starkest philosophical claims: the lights are given by God directly. This was by no means a popular view in the period: as we have seen, the doctrine of *dator formarum*, the direct provision of form by God, was not a mainstream concept in the period. Philosophers tended to think that the direct intervention of God in matter was unacceptable, resembling too much to a *deus ex machina* proposal.² In fact, the tendency in the period was to distance God from Creation: the overarching image of divinity was one of an omnipotent maker who had created such a perfect machine that he no longer needed to intervene in it. This went in line with the Protestant rejection of miracles, and it was precisely a perpetual miracle that was required to make sense of Van Helmont’s views of generation.

Hence, Van Helmont was trying to accredit the idea that God was not only the source of the Universe as a whole, but of the individual in particular. Of course, his worldview went hand in hand with the concept of an absolute necessity in Nature: no individual, except for human beings, benefited from free will. We must not forget that for Van Helmont, all beings ‘depend originally, totally, to wit, absolutely, and intimately on God’.³ Thus, the whole Universe was pre-programmed and governed by God with his ‘hand’ or his ‘finger’ as Van Helmont loved to present it. The stars themselves bore upon themselves the signs of this ‘universal predestination’, which the

² We have seen Leibniz’s reproach along these lines.

³ Van Helmont, chap. 89, ‘Of Time’, p. 637, ‘De Tempore’, p. 504: ‘...originaliter, totaliter, absolute scilicet & intime à Deo’.

chosen prophets of God could interpret. Such views can be considered as being an essential part of Van Helmont's voluntarist theology.

Of course, Van Helmont's view of God as the supreme will involved in the minutest details of life could be criticised as promoting a despotic perception of divinity. This would, however, be an inaccurate image of Van Helmont's understanding of God. Van Helmont was an alchemical philosopher, and for him God was not an exterior force. Indeed, the Flemish philosopher took issue with the image of God as an external being that moves things. Instead, God was the divine essence of things, their Goodness, Truth, and Logos-Word. This view was not pantheistic, since Van Helmont believed along orthodox lines that God is in all things, but He is not all things. His essence, as he underlines, remains inaccessible and unknowable.

Van Helmont's panentheistic perspective is emphasised by the idea of life as light. God is the 'Father of Lights' as St James had proposed, but essentially He is not the supreme light: light is a manifestation of the divine. However, He infuses the lights into beings, giving them something akin to his divinity, yet without sharing His essence with anyone. The doctrine of lights can also be assimilated with the Logos theology, where the Word is sent into Nature to create all things. As St John had expressed it, both the 'light of the world' and the Word are one and the same, Jesus Christ.

Indeed, Van Helmont, as well as many other Paracelsians, held a Christocentric view of Creation. This Christocentrism had deep roots in alchemical philosophy, for which the Philosophers' Stone was an analogy of Christ. This image betrays many of the assumptions of the medieval alchemical philosophy, including the hidden presence of Christ in Creation, the possibility of the radical transmutation of matter, the intrusion of the supernatural in the ordinary, and the confirmation of the special status of mankind as creators of divine things. Christ was, in the eyes of the alchemical philosophers, the intermediary between a transcendental God and a created, fallen world.

For Van Helmont, Christ is not only Pantocrator, the ruler of the Universe; He is also 'true man'. In this fundamentally Pauline perspective, Christ is brought close to human nature as 'second Adam', or the true face of man before the Fall. The intimate relationship between Christ and human beings is also implied in Van Helmont's view that sinless Men are also 'sons of God'. The salvific role of Christ is hence that of returning Man to his true nature as the image of God (*imago Dei*). It is not that Van Helmont wishes to diminish Christ as something less than divine. Instead, he wishes to lift the stature of Man as something akin to God: it is in such a way that one must interpret his insistence on Man as *imago Dei*. This expression is more than a figure of

speech for him: it means that we were originally created to be the mirror image of divinity, God's counterpart in the created world. Human beings were not conceived to be part of Nature: their creation was 'anomalous' and unique.

The close kinship between God and Man is emphasised by Van Helmont in his most controversial doctrine: that of the Original Sin as the sexual act. Despite its strangeness, it is essential to understand it as an extension of his strong humanist views. By postulating that God's original plan was to generate human beings through a direct intervention into the womb of Eve, Van Helmont brings mankind even closer to divinity. The only real difference between Man and God resided in the human creaturely nature and the material side, obtained from Eve. Otherwise, being generated by the Holy Spirit, Man would have been virginal, immortal, and in close contact with his 'Father', God. This status also implied that he would have had a direct, unmediated understanding (*scientia*) of Nature, which would have given him natural dominion over all creatures.

Given such a lofty view of the original status of mankind, the Original Sin appears nothing short of a disaster. Van Helmont decries the eating of the apple as an profound drama. Viewing the knowledge of 'good and evil' as essentially sexual comprehension, Van Helmont concludes that Adam's 'rape' of Eve effectively resulted in the obliteration of the divine generation of Man. The Original Sin was a tragedy whose consequences were such that Man lost his status of 'son of God', his intrinsic *scientia* and his immortality. Van Helmont's vision is peculiar in that he emphasises the organic consequences of the Original Sin: the replacement of a spiritual generation with a sexual one, and of the body's rulership of the mind with that of the newly created sensitive soul.

The retreat of the mind into the recesses of the body and the assumption of governorship by the *anima sensitiva* make the present man a debilitated, fallen creature. The sensitive (animal) soul does not know how to rule a human body, and hence it subjects it to suffering, disease, and eventually death. The present status of the human being is the more pitiful the greater his initial destiny was. It is the more dramatic as mankind does not even realise how much of their present status is altered by Original Sin. The worst blindness, Van Helmont believes, is to mistake reason for a higher faculty, and to demand knowledge from it. Reason is the product of the devilish Tree of Good and Evil: it is an animal trait that belongs to the *anima sensitiva* and not to the mind; reliance on it throws man further away from God.

This bleak state of affairs can, felicitously, be remedied. God, whose love toward mankind never wavered, not even at the time of the Original Sin, sent His only Son, Jesus Christ, to die on the Cross for mankind's sins. Christ also instituted the essential Sacraments of Baptism and Eucharist so that human beings may be regenerated into His virginal body. Van Helmont, like Paracelsus, viewed these Sacraments in organic terms: they act at a subtle level, restoring the lost purity of the soul and body. This profound transmutation is, unsurprisingly, compared with the transformation of base metals into the Philosophers' Stone. Both, in essence, are miracles that are effected by divine will in the sublunary world.

Although Man is essentially saved by faith, good works and the Sacraments, Van Helmont does find room for wisdom and knowledge in his system. Perhaps it is not entirely a salvific role, but it does bring an 'increase of Grace'. Wisdom, he says, is justified by charity towards one's neighbour, and there's no greater charity than medicine. By anchoring knowledge in the act of charity, Van Helmont gives a meaning to both mystical experience and the practice of alchemy. However, to be able to produce powerful alchemical medicine is no trivial matter: nothing less than a mystical enlightening must occur. Indeed, Van Helmont posits a ladder of *gnosis* that a novice must climb to achieve the highest status of Adept.

No one can achieve wisdom except through self-knowledge, in Van Helmont's Christianised version of the Greek edict *gnothi seauthon*. Self-knowledge begins with silent prayer, ascetic practices and vigils; eventually, intellectual visions appear to guide the soul to illumination. Yet the highest status is imageless: one must reject all representations in order to reach a state of profound darkness, whereby all, including the human will, is renounced. When everything is thrown away except desire, God may bestow upon man the bounty of His light and the supreme gift of the kiss (*binsica*). For a moment, the soul of man is then transformed into the image of God. This mystical state is also one of pure knowledge, when man meets God and draws knowledge from divine revelation.

The knowledge of the self as *imago Dei* is hence the fundamental premise and archetype of all other type of knowledge. The wise man, Van Helmont thinks, cannot be content with directly experiencing God for his own sake: he must go further and bestow that knowledge on other people. The greatest mystics, in his eyes, are the physicians, who not only acquire wisdom by direct illumination, but also put it in practice for the sake of less fortunate human beings.

In Van Helmont's peculiar worldview, the true Adept is then someone who had reached the higher secrets of medicine. For this purpose laboratory practice is insufficient: it must be accompanied by mystical techniques of a similar kind to those needed for self-knowledge. The assumption in this view is that the essence of all things is divine: hence reaching it requires a contact with divinity as well. The process is described as a transformation of the intellect into the thing understood, or the attainment of the Truth within things by the Truth of the soul. The assumption, of course, is the intelligibility of the natural world by the human mind based on the universality of the Logos in all things.

This process, is, of course, not easy, and from Van Helmont's own testimony it appears that the attainment of true *scientia* is an arduous process that requires years and years of prayer and laboratory practice. It is clear that practical work must go hand in hand with a pious attitude and the recognition of the limits of the unenlightened human mind. Only God bestows knowledge, and He gives it to whom He will. All illumination is the product of God's Grace, and not of one's own merits.

In the *Ortus*, Van Helmont claims he had achieved most of the highest forms of knowledge that may be given to mankind. Amongst these he exemplifies the Universal Medicine, the *Arbor Vitae*, the medicine of long life, and the Philosophers' Stone. He lays claim to two of these three, with the issue of *chrysopoeia* being left unclear. However, true to his beliefs in charity, he concentrates his efforts on alchemical medicine, including the miraculous *Drif* and the *Arbor Vitae*. Unfortunately, such high secrets cannot to be shared with other human beings. Apparently, in face of the greatest knowledge, even charity could not prevail. Why that is, Van Helmont does not explain, preferring to have recourse to Jesus's injunction of not sharing roses before swine. One may speculate that the idea of personal merit and election had a stronger sway in his mind than even charity had.

This summary has, hopefully, shown that Van Helmont's views were unitary and coherent. It has also conveyed the close relationship that in his mind existed between his Christian views and those drawn from medical alchemy. Indeed, they meet at a fundamental level in concepts that transcend the boundaries between religion and natural philosophy. One such 'universal' Helmontian principle is transmutation, which stands not only for the change of the mortal bodies into Christ by means of the Sacraments, but also for the means by which Ferments act on passive water to create completely new and different beings. Furthermore, transmutation applies in epistemology (the deification of the mind and the process of *scientia*) as well as in

alchemy (the Philosophers' Stone). Another such 'universal concept' is light, which is not only the essence of the Taboric Christ and the experience of the divine in the soul, but also the fire the alchemist uses to create new, better bodies in the laboratory, the Light of Nature that is intrinsic within things as their life, and the principle whereby alchemy illuminates Philosophy.⁴ Similarly, liquidity is not only the state of the Universe at the beginning of Creation: it is the purifying water of Baptism, the reduction of every being into the first *ens* by means of the Alkahest, the watery *ignis gehennae* of the Alkahest itself, as well as the state of the mind as it loses its own identity and becomes ready to receive God. Virginity is not only the spiritual power emerging from Christ; it is the glorified human body of eschatology, the unspotted body of Virgin Mary, the potent state of Mercury of the Philosophers, the true state of the elements and the purity of those women who dedicate their lives to Christ.

Thus, Van Helmont's concept of 'Christian Philosophy' implies the existence of a common platform of communication between God, Nature and Man. This platform is essentially a common core given by the immanent God, the logos and light that permeates the substance of Nature and of Man. The image of light is by far the most poignant in Van Helmont's philosophy: it unites together the uncreated light of God, with the created substantial light of the human mind, the vital lights of individual existence and the fiery light that we can sense. Light can hence be seen as a defining and encompassing term of his Christian Philosophy. Through it, Van Helmont can unveil the divine core of the entire natural world. Further, by positing the existence of lights intrinsic to both things and the mind of man, he opens the path to natural inquiry. Once the mind of man is enlightened by the Light of Grace, this can penetrate the light of Nature in things.

Thus, the ubiquity of lights that can penetrate each other creating networks and complex interactions is perhaps the most lasting image of Van Helmont's philosophy. It is also an uplifting image, since it postulates a kinship between all things that exist and a possibility to understand and communicate across all boundaries, be they natural or supernatural. In Van Helmont's world there is no room for unintelligibility, or the complete unknown besides the essence of God. As Van Helmont puts it, light defeats the resistance of all black bodies.

Given these analogical connections, how could Van Helmont not believe in a conversion role for alchemy? The examples of alchemy could show how the body can

⁴ Van Helmont, chap. 21, 'The Birth or Originall of Forms', p. 143, 'Ortus formarum', p. 117: 'Quare jam patet, quod ignis consideratio, per Physiologiam, referet naturae januam, totamque illuminet Philosophiam, omnesque excluderit Pyrotechniae despectores'.

be resurrected, God can be embodied as Man, how the world was created etc. In the laboratory, the mysteries of matter could unveil and mirror the mysteries of God, and show that miracle can, and should be expected, since the world we live in is not ordinary.

5.2. Final Considerations and Legacy

Van Helmont's 'Christian Philosophy' can hence be deemed as a solid worldview, impaired only by its mildly incoherent presentation in the *Ortus medicinae*. I have already observed that reasons for this could be linked with a relatively sudden death and to Van Helmont's own sometimes turgid style, which he sought to make as remotely Scholastic as possible. Perhaps other obstacles might have been the inherent difficulty in articulating mystical experiences and the problem of expressing a covert worldview that originated from a long, but generally submerged, tradition of alchemical philosophy. Van Helmont's perspective is deeply tied to his Paracelsian background, despite his attempts to free himself from it. In fact, as I have endeavoured to show, many of Van Helmont's ideas were a reiteration of Paracelsian and alchemical views. Where he went further was in attempting to articulate a coherent Christian natural philosophy that could act as a new synthesis instead of the waning Scholasticism.

An important aspect of this endeavor was clearly orthodoxy. It is clear that Van Helmont was concerned with proposing a Christian view of the world that would fit with the doctrines of the Church, and primarily the Catholic one. Concerns about this led him to reject his fundamental belief in the Ground of the soul in favour of the accepted doctrine of the unity of the soul. We can also see that the powers of magic – either natural or higher magic – are no longer mentioned in the *Ortus*. It is hard to believe that he stopped believing in them, particularly since he continued to uphold the use of sympathetic remedies; however, he avoided the term itself in the hope of establishing the orthodoxy of his vision.

Indeed, in his *Ortus* statements, Van Helmont was generally able to keep within the boundaries of orthodoxy. Perhaps some of his theological claims concerning God and Christ might have appeared slightly suspicious, but he always sought to ground them in the Bible and the Fathers of the Church, particularly the mystically oriented St Paul, St Augustine and Pseudo-Dionysius. Even his doctrine of prolongation of life is drawn from readings of the Bible and seeks to avoid controversy by denying that man's life can be extended indefinitely.

His most problematic doctrine, however, remains his theory of the Original Sin as the sexual act. Despite quotations from St Augustine and the existence of a strong supportive faction in the Flemish church (Archbishop Jacques Boonen included), Van Helmont's proposition would have resembled Jansenism too much to be accepted by Catholic doctrine. Nevertheless, I am not aware of any religious condemnation of Van Helmont's work based on this tenet or any other matter: the theological controversy died away after his passing.

Van Helmont's peculiar theory of the Original Sin can also be deemed to be a departure from the general Paracelsian views, though not completely. Without going as far with his reasoning as Van Helmont, Paracelsus had also praised virginity and embraced chastity as making humans more divine, more Christ-like.⁵ In any case, Van Helmont drew a profoundly honest humanist vision which exalted Man as the highest and most noble creation. It must be more than a coincidence that Van Helmont was inspired in his view by another humanist, Cornelius Agrippa. We must recognize that this type of view was also consonant with the concept of Man as an all-powerful creature as advocated in the Renaissance.

In assessing the impact of Van Helmont's proposed Christian Philosophy, we must also acknowledge that there was something profoundly enticing about his endeavour. It advocated, in no mild terms, the unity of all knowledge: it offered new avenues and justifications for the exploration of Nature, and an ideology that was not in opposition but in profound harmony with Christian views. In Van Helmont's mindset, man was free to reach as high as he could: there were no injunctions against knowledge, as long as a practical outcome would be elicited from it. Hence it is unsurprising that the early 'scientists' of the Royal Society would have been drawn to this type of vision. It was indeed a pro-'enlightenment' philosophy whose profound value rested in its optimistic view of the potential of man.

Moreover, the promise of alchemy was hard to resist in the epoch. We can see that many 'new philosophers', including Pierre Gassendi, Marin Mersenne, René Descartes, Kenelm Digby, Robert Boyle, Gottfried Leibniz and Isaac Newton, were swayed by the glittering world of alchemy. For these philosophers, just like for Van Helmont, it was not the promise of 'gold' or 'silver' that enticed them to the laboratory: after all, most were wealthy gentlemen. Instead, it was the fascination of glimpsing into a hidden world, into the inner workings of divine creation, of reaching the marrow of Nature. We can even talk of the 'glamour' of alchemy in the period, when its

⁵ See Weeks, *Paracelsus: Speculative Theory*, p. 91.

possibilities seemed endless. The powers of man seemed endless as well and powerful products could be elicited from Nature's bosom. Moreover, Van Helmont seemed to indicate the path to the fulfillment of dreams that had haunted mankind forever: the universal medicine for diseases, the extension of life and renewal of youth. Perhaps the greatest of promises was that of knowledge: that knowledge itself could be endless. A brave new world unfolded, and the first step to it was the uncovering of the secret of Van Helmont's Alkahest, which would purify all things in its *ignis gehennae*.

The problems inherent in Van Helmont's view, as with the entire alchemical tradition, would only in time be revealed. Its fundamental one was its secrecy, and its inability to allow for accumulation of knowledge at a social level. Each person had to undergo his own enlightenment, and communication across levels of knowledge was limited. The highest of secrets could not be shared. The code of secrecy was a serious impediment to the progress of a society rather than an individual. This problem was embodied rather starkly in the dual personality of Robert Boyle, one of the chief Helmontian supporters: just as he clamoured for openness in sharing of secrets, he kept quiet about his own explorations of the Philosophers' Stone and other arcane subjects.⁶

A lot has been written about 'Helmontianism' at the dawn of the Royal Society, yet as is the case with Van Helmont in general, only his impact on science has been noted. It is known that he stimulated research and exploration, the change of the curriculum of education and the advent of the scientific age. However, I would argue, the story of Helmontianism has only been partially written. This study has attempted to show that an assessment of Van Helmont through the lens of the history of ideas and his 'Christian Philosophy' project can reveal much more about his mindset and epoch. With this larger view of 'Christian Philosophy' as a background, perhaps more can be unearthed about the impact of Van Helmont in the period. One example of an area that has been relatively neglected was the enormous influence of Van Helmont in the later seventeenth-century search for the 'Universal Medicine' and the 'Tree of Life'. Similarly, the impact of Van Helmont's Christian philosophical worldview on Robert Boyle and others still waits assessment. A final example is Van Helmont's possible influence on the growth of the idea of a 'Christian science' or 'sacred physics' in the eighteenth century. For instance, in 1700, the Prince of Moldavia, Demetrios Cantemir (1673-1723), composed a work called *Sacrosancta Philosophia* which attempted to present a coherent Christian philosophy based almost entirely on Van Helmont's views.

⁶ Lawrence M. Principe, *The Aspiring Adept: Robert Boyle and his Alchemical Quest* (Princeton, NJ: Princeton University Press, 1998), pp. 148-149.

Such contributions of Van Helmont to the wider notion of modern culture remain to be explored.

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