

**THE IMAGE AND IDENTITY OF THE ALCHEMIST**  
**IN**  
**SEVENTEENTH-CENTURY NETHERLANDISH ART**

Dana Kelly-Ann Rehn

Dissertation submitted in partial fulfillment of

the coursework requirements for the degree of

Master of Arts (Studies in Art History)

School of History and Politics

University of Adelaide

July 2011

## TABLE OF CONTENTS

TITLE PAGE.....	i
TABLE OF CONTENTS.....	ii
LIST OF ILLUSTRATIONS.....	iii
DECLARATION.....	v
ABSTRACT.....	vi
ACKNOWLEDGEMENTS.....	vii
1 INTRODUCTION.....	1
2 ALCHEMY: A CONTROVERSIAL PROFESSION, PAST AND PRESENT.....	7
3 FOOLS AND CHARLATANS.....	36
4 THE SCHOLAR.....	68
5 CONCLUSION.....	95
BIBLIOGRAPHY.....	103
CATALOGUE.....	115

## LIST OF ILLUSTRATIONS

FIGURE 1	Philip Galle (After Pieter Bruegel the Elder), <i>The Alchemist</i> , c.1558.....	118
FIGURE 2	Adriaen van de Venne, <i>Rijcke-armoede</i> ('Rich poverty'), 1636.....	119
FIGURE 3	Adriaen van Ostade, <i>Alchemist</i> , 1661.....	120
FIGURE 4	Cornelis Bega, <i>The Alchemist</i> , 1663.....	121
FIGURE 5	David Teniers the Younger, <i>The Alchemist</i> , 1649.....	122
FIGURE 6	David Teniers the Younger, <i>Tavern Scene</i> , 1658.....	123
FIGURE 7	David Teniers the Younger, <i>Tavern Scene</i> , Detail, 1658.....	124
FIGURE 8	Jan Steen, <i>The Alchemist</i> , c.1668.....	125
FIGURE 9	Jan Steen, Title Unknown, 1668.....	126
FIGURE 10	Hendrik Heerschop, <i>The Alchemist</i> , 1671.....	128
FIGURE 11	Hendrik Heerschop, <i>The Alchemist's Experiment Takes Fire</i> , 1687.....	129
FIGURE 12	Frans van Mieris the Elder, <i>An Alchemist and His Assistant in a Workshop</i> , c.1655.....	130
FIGURE 13	Thomas Wijck, <i>The Alchemist</i> , c.1650.....	131
FIGURE 14	Pierre François Basan, 1800s, after David Teniers the Younger, <i>Le Plaisir des Fous</i> ('The Pleasure of Fools'), 1610-1690.....	132
FIGURE 15	David Teniers the Younger, <i>The Alchemist</i> , c.1645.....	133
FIGURE 16	Thomas Wijck, <i>L'Alchymiste en Méditation</i> ('The Alchemist in Meditation'), 1600s.....	134
FIGURE 17	Thomas Wijck, <i>The Alchemist in his Studio</i> , 1600s.....	135

FIGURE 18	David Teniers the Younger, <i>The Surgeon</i> , c.1670.....	137
FIGURE 19	David Teniers the Younger, <i>Alchemist in his Studio</i> , c.1651-6.....	138
FIGURE 20	Circle of Giuseppe Ribera, <i>Jesus and the Doctors of the Faith</i> , c.1630.....	139
FIGURE 21	Jacob van Toorenvliet, <i>An Alchemist with his Apprentice in his Studio</i> , 1600s.....	140
FIGURE 22	David Ryckaert III, <i>The Alchemist</i> , 1634.....	141
FIGURE 23	David Ryckaert III, <i>Scholar with Homunculus in Glass Phial</i> , c.1649.....	142
FIGURE 24	David Ryckaert III, <i>Scholar with Homunculus in Glass Phial</i> , Detail, c.1649.....	143
FIGURE 25	Joseph Wright of Derby, <i>The Alchymist, in Search for the Philosopher's Stone, Discovers Phosphorus, and prays for the successful Conclusion of his operation, was the custom of the Ancient Chymical Astrologers</i> , 1771.....	145
FIGURE 26	Albrecht Dürer, <i>Saint Jerome in His Study</i> , 1514.....	146
FIGURE 27	David Teniers the Younger, <i>The Temptations of St. Anthony</i> , c.1650.....	147
FIGURE 28	David Teniers the Younger, <i>Alchemist in his Workshop</i> , c.1650.....	148
FIGURE 29	David Teniers the Younger, <i>Old Woman Binding the Devil to a Cushion</i> , c.1635.....	149
FIGURE 30	Adriaen Matham, <i>Temptress Woman, Devil, Alchemist</i> , 1590-1660.....	150
FIGURE 31	Egbert van Heemskerck I, <i>An Alchemist in his Study</i> , 1600s.....	151

## DECLARATION

This dissertation contains no material that has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text of the dissertation.

I give consent to this copy of my dissertation, when deposited in the University Library, being made available for photocopying and loan.

WORDS: 23 771

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

## ABSTRACT

This dissertation explores the representation of the alchemist in Netherlandish art during the heyday of alchemy in seventeenth-century Europe amidst the Scientific Revolution. While contemporary debates regarding the position that alchemy and magic in general had on the development of modern science has held particular interest for scholars working in the discipline of the history of science, the rich iconographic tradition of the alchemist in seventeenth-century Netherlandish painting has not been explored in detail from a wider socio-cultural perspective. It is for this reason that the image and identity of the alchemist is analysed in selected seventeenth-century Netherlandish paintings in order to not only explore their position within the Scientific Revolution, but also to shed light on their meaning and function within the socio-cultural context of the Golden Age in the Netherlands. The contradictory perception of the alchemist in this period as either fools and charlatans or ‘scientific’ scholars is shown to reflect the fear and apprehension that accompanied the dynamic nexus between religious change and scientific experimentation in this transformative period of the early modern European Scientific Revolution, in addition to heightened class-consciousness amidst the Golden Age in the Netherlands.

## ACKNOWLEDGEMENTS

I would like to sincerely thank my supervisor, Dr. Lisa Mansfield, for the incredible support, guidance and enthusiasm for this project. In addition, to the Program Coordinator, Associate Professor Catherine Speck, for her guidance and for allowing me the opportunity to complete this project. Furthermore, I would like to acknowledge the research assistance from Margaret Hosking (Research and Book Resources Librarian, University of Adelaide) and Anthony Abela (Acquisitions Librarian, University of South Australia) for their guidance of resources and the acquisition of pivotal works for this dissertation. Further appreciation extends to Jasper Beckeringh for assistance with translations and for proof-reading as well as proof-reading and feed-back by Luke Stange. Gratitude is extended to Kelly Smith for providing inspiration for this dissertation.

# 1 INTRODUCTION

During the Renaissance period when reason and the scientific method were believed to discard old ideas of superstition, the ‘magical’ practice of alchemy flourished.<sup>1</sup> As ancient texts were revisited during the Renaissance, so too were ancient magical writings of the legendary Egyptian magus, Hermes Trismegistus, who was believed to be the founder of alchemy.<sup>2</sup> The ancient author was attributed with the alchemical treatise entitled the *Emerald Tablet*.<sup>3</sup> In addition, the Renaissance also revived a respect for medieval thinkers, including one of the most notable alchemical practitioners, Roger Bacon (1214-1294),<sup>4</sup> who was regarded as one of the first advocates of the scientific method.<sup>5</sup> By the seventeenth century, alchemy had reached its peak in the midst of the Scientific Revolution.<sup>6</sup>

Pinning down one true definition for the meaning of early modern alchemy is difficult as the term means different things in different periods of history as well as between individual alchemists within the same period. The basic meaning of alchemy in early modern Europe referred to the pseudo-science of transmutation, where base metals were transformed into the nobler metals of gold and silver by the elusive

---

<sup>1</sup> Matilde Battistini, *Astrology, Magic, and Alchemy in Art*, trans. Rosanna M. Giammanco Frongia, Los Angeles: J. Paul Getty Museum, 2007, p. 10.

<sup>2</sup> Felipe Fernandez-Armesto, *Ideas that Changed the World*, London: Dorling Kindersley, 2003, p. 216.

<sup>3</sup> Brian Copenhaver, ‘Natural Magic, Hermitism, and Occultism in Early Modern Science,’ in David C. Lindberg and Robert S. Westman (eds), *Reappraisals of the Scientific Revolution*, Cambridge: Cambridge University Press, 1990, pp. 261, 285.

<sup>4</sup> John Henry, ‘Magic and Science in the Sixteenth and Seventeenth Centuries,’ in Robert C. Olby et al. (ed.), *Companion to the History of Modern Science*, London: Routledge, 1990, p. 585.

<sup>5</sup> Charles Singer, *From Magic to Science: Essays on the Scientific Twilight*, New York: Dover Publications, 1958, p. 92.

<sup>6</sup> Alfred R. Hall, *Henry More, and the Scientific Revolution*, Cambridge: Cambridge University Press, 1996, p. 37.



'Philosopher's Stone'.<sup>7</sup> At this time, the process was based on seemingly empirical evidence, which led alchemists to believe that they could turn base metals into precious elements. In short, the early modern alchemist simply wanted to harness what nature could do in thousands of years into a condensed and controllable process.<sup>8</sup> It was observed that almost all lead ore contained some silver while almost all silver ore contained some gold, which forged the belief that the minerals changed with time.<sup>9</sup> Alchemists thus attempted to imitate the generation of metals in nature.<sup>10</sup> In addition, the early modern understanding of the transmutation of metals was derived from Aristotle's concept of matter. The rationale was that if each substance contained the four elements of fire, earth, air and water then it was a matter of rearranging the proportions of each element to turn lead into gold.<sup>11</sup> As a result, alchemy was also regarded as unlocking the secret knowledge to God's creations which could result in 'man's' ability to become one with God by the achievement of spiritual elevation.<sup>12</sup>

Within the dynamic transformative social context of the Scientific Revolution, the pseudo-science of alchemy was received with a mixed reception throughout early modern Europe. As illustrated in a large number of seventeenth-century Netherlandish paintings, practitioners of alchemy were regarded, on the one hand, fools or

---

<sup>7</sup> Roger Bacon, *The Mirror of Alchemy* (1214-1294), Whitefish, M.T.: Kessinger Publishing, 2004, p. i.

<sup>8</sup> Lawrence M. Principe and Lloyd DeWitt, *Transmutations: Alchemy in Art; Selected Works from the Eddleman and Fisher Collections at the Chemical Heritage Foundation*, Philadelphia: Chemical Heritage Foundation, 2002, p. 3.

<sup>9</sup> John Noble Wilford, 'Transforming the Alchemist', *New York Times*, 1 August 2006, <http://www.nytimes.com/2006/08/01/science/01alch.html?ex=1312084800&en=4445e5f8f9c7b3c0&ei=5090&partner=rssuserland&emc=rss> accessed: January 8, 2011, p. 3.

<sup>10</sup> *Ibid.*, p. 2.

<sup>11</sup> Michael Edwardes, *The Dark Side of History: Magic in the Making of Man*, London: Hart-Davis MacGibbon, 1978, p. 17.

<sup>12</sup> Principe and DeWitt, 2002, p. 19.

charlatans, and on the other, as respected 'scientific' scholars.<sup>13</sup> To a certain extent, these images reflect the way alchemy and its practitioners were perceived in conflicting ways during the seventeenth century by the general populace. In similar vein today, some scholars believe alchemists were regarded as respected scientists,<sup>14</sup> while others claim they were largely ridiculed by the general public as fraudsters.<sup>15</sup> These varying perceptions were likely the result of the socio-cultural complexity that surrounded alchemy throughout early modern Europe. In reflection of the varied primary objectives of alchemy were the different perspectives between alchemists. Both textual and visual primary sources confirm that there certainly were outright charlatans and downright foolish practitioners of alchemy, but there were also those who developed reputations as esteemed men of scientific learning, or rather natural philosophers, as the term 'scientist' was not coined until the nineteenth century.<sup>16</sup>

Representations of alchemy, or more specifically, the depiction of individual alchemists absorbed by the complex theories of alchemy and arduous practical tasks associated with it, were a popular theme within the tradition of seventeenth-century Netherlandish genre painting. In fact, the period witnessed the production of literally hundreds of representations of the alchemist in thought and at work, which was due in part to the rise of genre painting in the Netherlands during this period. This trend is illustrated by the fact that the Netherlands produced the most images of labour in

---

<sup>13</sup> Henry, 1990, p. 587.

<sup>14</sup> Abraham Arthur Anne Marie Brinkman, *De Alchemist in de prentkunst*, Amsterdam: Rodopi, 1982, pp. 42, 47; Jacques van Lennep, *Alchimie: Contribution à l'histoire de l'art alchimique*, exh. cat., Bruxelles: Crédit Communal, 1984, p. 361; Lyndy Abraham, *A Dictionary of Alchemical Imagery*, Cambridge: Cambridge University Press, 1998, p. xv.

<sup>15</sup> Principe and DeWitt, 2002, p. 6; Philip Ball, *The Devil's Doctor: Paracelsus and the World of Renaissance Magic and Science*, London: William Heinemann, 2006, p. 147.

<sup>16</sup> Douglas Harper, 'Scientist', *Online Etymology Dictionary*, 2001-2010, <http://www.etymonline.com/index.php?term=scientist> accessed: March 8, 2011.

early modern Europe.<sup>17</sup> In turn, it was only in the Netherlands where the subject of the alchemist at work gained popularity.<sup>18</sup> Yet, while the role of alchemy in the Scientific Revolution has been widely studied within the discipline of the history of science, it has not been extensively explored from the perspective of art history or visual culture, in particular, from a wider socio-cultural perspective. Moreover, scholarship focused on the representation of the alchemist in art has been mainly derived from the work of chemists. Modern scientists have, in this way, played a significant role in analysing the representation of alchemy in the visual arts.<sup>19</sup> Yet, despite the contribution chemists have played in furthering the scholarship on representations of the alchemist in art, their studies have been largely preoccupied with understanding the alchemical process and assessing the authenticity and depictions of the early modern laboratory rather than examining the image and identity of the alchemist in this period.

Therefore, the aim of this dissertation is to examine the representation of the early modern alchemist in seventeenth-century Netherlandish genre paintings with reference to the unique socio-cultural (religious, political, economic) context of the Netherlands. In analysing the image and identity of alchemists in selected works of art, the discussion is inclusive of both scientific and art historical approaches, which also facilitates an exploration and interpretation of the position of the alchemist within the Scientific Revolution. An additional fundamental task will be to analyse the

---

<sup>17</sup> Alison M. Kettering, 'Men at Work in Dutch Art, or Keeping One's Nose to the Grindstone', *The Art Bulletin*, 89, no. 4, 2007, p. 694.

<sup>18</sup> Jane Russell Corbett, 'Seeing Things: *The Alchemist and Death by Thomas Wyck*', in Volker Manuth and Axel Rüger (eds), *Collected Opinions: Essays on Netherlandish Art in Honour of Alfred Bader*, London: Paul Holberton, 2004b, p. 164.

<sup>19</sup> For example see Principe and DeWitt, 2002; John Read, *The Alchemist in Life, Literature and Art*, London: Thomas Nelson, 1947; Brinkman, 1982.

extremely detailed and esoteric iconography that is commonly found in representations of alchemists working at what was for some a hobby and for others a profession in this period.

To achieve this aim, Chapter 2 not only provides an overview of relevant visual and textual academic sources on the history of science, alchemy and Netherlandish history and northern Baroque art history, but also describes the unique cultural milieu of art, society and culture in seventeenth-century Netherlands. The duality of the perception of the alchemist, as a fool or charlatan, on the one hand, and respected scholar, on the other, are explored in Chapters 3 and 4 respectively. The central issue of the enduring relationship between art and alchemy and artists and alchemists in terms of the creative transformative process particular to both pursuits are also explored in these chapters. In regards to the question of why alchemy held such a fascination for Netherlandish artists during this period, the issue of patronage, or more specifically, the impact of patrons in generating representations of this theme in art, as well as the intended audience of the paintings is also considered.

Chapter 5 concludes the dissertation with a discussion of the significance of the dual representation of the alchemist in respect of prevailing attitudes towards religion, politics, economics and morality in the seventeenth-century Netherlands. In addition to allowing for a greater understanding of the reception alchemists held during this period it concludes by a discussion of its continued pervasive influence in twenty-first perceptions of scientists. The visual analysis of alchemy is of vital importance for a subject marred by controversy and misunderstandings in both past and present

historical contexts, particularly given the mystery surrounding the practice as encapsulated by the coded writings of early modern alchemists who attempted to obscure their work to the unworthy.<sup>20</sup>

---

<sup>20</sup> Lynette Dawn Grant, 'Alchemy and Art during the Sixteenth and Seventeenth Centuries', M.A., University of Sydney, 1980, p. 4.

## 2 ALCHEMY: A CONTROVERSIAL PROFESSION, PAST AND PRESENT

Alchemy is an enduring and pervasive theme in paintings and etchings produced in early modern Europe.<sup>21</sup> Even some early modern artists were inspired to become alchemists, as were the famous cases of Parmigianino (1503-1540) and Beccafumi (1486-1551) during the Italian Renaissance.<sup>22</sup> The representation of the alchemist became a particularly popular theme in the art, society and culture of the Netherlands in the seventeenth century. It reflected both the height of the practice of alchemy, as well as the artistic culture of Netherlandish art during this period.<sup>23</sup> What is most striking about these images is the polarity in the representation of alchemists, which, in turn, reflected the complex divisions that existed within the discipline of alchemy itself, beginning with the alchemist as a questionable fool or charlatan versus the alchemist as serious 'scientific' scholar.

The earliest representation of an alchemist in Netherlandish art is an engraving dated to the sixteenth century by the Flemish artist Pieter Bruegel the Elder (c.1525-1569) (fig. 1), which illustrates the contrasting dual roles related to the conception of early modern alchemy.<sup>24</sup> Bruegel's representation of an alchemist became popular after the

---

<sup>21</sup> Battistini, 2007, p. 6.

<sup>22</sup> Ibid., p. 7.

<sup>23</sup> Corbett, 2004b, p. 164; Jane P. Davidson, *David Teniers the Younger*, Boulder, Colorado: Westview Press, 1979, p. 39. Alchemy's popularity is further evidenced by over a hundred alchemical treatises that were published during the seventeenth century, many of which originated in the Netherlands.

<sup>24</sup> Hans Vlieghe, *David Teniers the Younger (1610-1690): A Biography*, Turnhout, Belgium: Brepols, 2011, p. 10; Corbett, 2004b, p. 164.

northern Renaissance printmaker Philip Galle made engravings after it.<sup>25</sup> It was Bruegel's particular brand of satire and moralistic reading which did the most to influence the increased popularity of the theme in seventeenth-century Netherlandish art. In Bruegel's intricately detailed image, a dilapidated family kitchen doubles as a laboratory. The alchemist sitting at the hearth on the left appears to be placing the family's last coin in a crucible to be melted in the alchemical process. This point is further underscored by his wife, who is seated in a hunched posture behind him and attempts to empty the contents of an already empty purse. While the alchemist's shabby torn clothes and spine clearly revealed through his skin signifies their desperate poverty, his thick, wiry hair, also conveys an impression of vagueness and absurdity, not unlike the modern stereotype of the distracted and dishevelled mad scientist. Both the scene and figures imply that the alchemist neglects himself as much as his family in the single-minded pursuit of his occupation.

Objects in the print also form the foundation for alchemical iconography in seventeenth-century Dutch genre painting. Many of the kitchen utensils have been replaced by alchemical equipment like glass flasks with various other cooking and storage vessels also used in the service of alchemy. A large industrial sized distillation apparatus beside the alchemist signifies that the family's money has been lost to the pursuit of transmutation. Scantly clad and bare footed children appear to search for food in a bare larder, with one child wearing an inverted pot on their head which alludes to their unsuccessful pursuit. A piece of paper pinned on the chimney above

---

<sup>25</sup> Principe and DeWitt, 2002, p. 11. The caption at the bottom of the print was not found on the original image by Bruegel. It reads, 'The ignorant ought to put up with things and afterwards labor diligently. The juice of the precious stone, common but then rare, is a certain single thing, vials but found everywhere, mingled with the four natures, crammed in a cloud, no mineral thing, and while of the first rank is such that it is found everywhere at hand.'

the alchemist bares the word *misero* ('poverty'), which serves to emphasise the intended moral message.<sup>26</sup>

Crouching in front of the alchemist's wife, an assistant sporting a hooded fools cap with ass ears, symbolising false magistry, is madly using the bellows to fan the flames in a brazier filled with crucibles that have toppled over.<sup>27</sup> The comedy of errors played out by the alchemist, his wife and assistant is witnessed by a scholarly figure on the right of the composition, who wears a long robe and turban, is seated at a lectern and points to the title of an open book, *Alge Mist*, which is translated as either 'all is lost' or 'all is crap' and doubles as a pun on the word alchemist.<sup>28</sup> With a guiding hand, the scholar further directs the gaze of the viewer to the unfolding moral of the scene. The scholar, via the alchemical texts, appears to be instructing the activities of the alchemist and his assistant. As if looking through a window to the future, a secondary scene unfolds as the family walks to an almshouse. This implies that they have squandered the last of their money in the hopes of achieving transmutation in the quest for the elusive Philosopher's Stone. Furthermore, the scholarly figure and the assistant are no longer with the family, which possibly suggests that the scholar is the corrupter of those who are more foolish to work in the laboratory aspects of transmutation. In this regard, Bruegel's print serves as a dual representation of the alchemist as both a fool and charlatan.

---

<sup>26</sup> Read, 1947, p. 63.

<sup>27</sup> Battistini, 2004, p. 361; Hélène A. Guerber, *The Myths of Greece and Rome*, New York: Cosimo, Inc., 2007, p. 57. The ass's ears allude to the myth of Apollo who made Midas grow the ears of a donkey to tag him for his dishonesty.

<sup>28</sup> Quentin Buvelot (ed.), *Frans van Mieris 1635-1681*, The Hague: Royal Picture Gallery Mauritshuis; Washington: National Gallery of Art; Zwolle: Waanders, 2005a, p. 85; Gibson, 2006, p. 45; Corbett, 2006, p. 250.



The literature that covers the representation of alchemy in art offers a broad account of this complex theme, beginning with studies on the history of the occult and magic that devote small sections to the practice of alchemy.<sup>29</sup> While many of these texts include an overview of alchemy in art and visual culture in past and present historical contexts,<sup>30</sup> others conduct extensive iconographical analysis of particular works of art, such as Hieronymus Bosch's famous *Garden of Earthly Delights* triptych.<sup>31</sup> In addition, there are art historical examinations surveying the representation of the alchemist in early modern art, particularly in seventeenth-century Netherlandish painting.<sup>32</sup> Jane Russell Corbett's study on the representation of the alchemist, for example, focuses on the origins of the graphic tradition in the sixteenth century to its development in the seventeenth century, which reflects the artistic conventions of Netherlandish genre painting that were infused with satire and allegory.<sup>33</sup> A related current in art historical scholarship examines the representation of the alchemist in regards to gender relations,<sup>34</sup> in particular women's domestic role in alchemical

---

<sup>29</sup> See for example James Wasserman, *Art and Symbols of the Occult: Images of Power and Wisdom*, London: Tiger Books International, 1993; Battistini, 2007; Fred Gettings, *The Hidden Art: A Study of Occult Symbolism in Art*, London: Studio Vista, 1978.

<sup>30</sup> See for example Lennep, 1984; Jacques van Lennep, *Art et Alchimie: Etude de l'iconographie hermetique et de ses influences*, Bruxelles: Meddens, 1971; Grant, 1980; Donatino Domini, *Chymica vannus: dell'alchimia o la scienza sognata*, exh. cat. Ravenna: Longo editore, 1986.

<sup>31</sup> See for example Madeleine Bergman, *Hieronymus Bosch and Alchemy: A Study on the St. Anthony Triptych*, Stockholm: Almqvist and Wiksell International, 1979; Laurinda S. Dixon, *Alchemical Imagery in Bosch's Garden of Delights*, Ann Arbor, Mich.: UMI Research Press, 1981; Laurinda S. Dixon, 'Alchemical Imagery in Bosch's Garden of Delights Triptych', Ph.D., Ann Arbor, Mich.: UMI Research Press, 1980. For a critique of such historiography see James Elkins, 'On the Unimportance of Alchemy in Western Painting', *Konsthistorisk Tidskrift*, 61, no. 1, 1992, pp. 21-26.

<sup>32</sup> For an overview see Petra Schramm, *Die Alchemisten: Gelehrte, goldmacher, gaukler; ein dokumentarischer bildband*, Taunstein: Edition Rarissima, 1984; Klaus Türk, *Physicians, Quacks and Alchemists: Seventeenth Century Paintings from the Eckhart G. Grohmann Collection at the Milwaukee School of Engineering*, Milwaukee, Milwaukee School of Engineering Press, 2005; Gustav F. Hartlaub, *Alchemisten und Rosenkreuzer: Sittenbilder von Petrarca bis Balzac, von Breughel bis Kubin*, Willsbach, Germany: Scherer Verlag, 1947.

<sup>33</sup> See Jane Russell Corbett, 'Convention and Change in Seventeenth-Century Depictions of Alchemists', in Jacob Wamberg (ed.), *Art and Alchemy*, Copenhagen: Museum Tusulanum Press, 2006, pp. 249-273; Jane Russell Corbett, 'Painted Science: Convention and Change in Seventeenth-Century Netherlandish Paintings of Alchemists, Physicians and Astronomers', Ph.D., Queen's University, 2004a; Corbett, 2004a, pp. 162-176.

<sup>34</sup> M. E. Warlick, 'Fluctuating Identities: Gender Reversals in Alchemical Imagery', in Jacob Wamberg (ed.), *Art and Alchemy*, Copenhagen: Museum Tusulanum Press, 2006, pp. 103-129.

scenes.<sup>35</sup> In seventeenth-century Netherlandish paintings, alchemists were predominantly represented as men, while a female was seen in the background, often carrying out domestic duties. This was due to the fact that alchemy was primarily a male occupation in early modern Europe. Relegating women to the background or sidelines of these images reflected the way many women continued to be restricted to the household sphere of marriage and motherhood during the seventeenth century.<sup>36</sup> In this period, women were not only restricted in most higher sources of education, but the fear of being accused of witchcraft and imprisonment for practicing alchemy were also very real.<sup>37</sup>

In terms of controversial attitudes towards alchemy in the modern historical context, some scientists in the twentieth century regarded early modern alchemy as the precursor to chemistry.<sup>38</sup> Their research has played an important role in furthering the

---

<sup>35</sup> See M. E. Warlick, 'The Domestic Alchemist: Women as Housewives in Alchemical Emblem', in Alison Adams and Stanton J. Linden (eds), *Emblems and Alchemy*, Glasgow: University of Glasgow, 1998, pp. 25-49; Elizabeth E. O'Mahoney, 'Representations of Gender in Seventeenth-Century Netherlandish Alchemical Genre Painting,' Ph.D., The University of York, 2006.

<sup>36</sup> Warlick, 1998, p. 28. Gareth Roberts, *The Mirror of Alchemy: Alchemical Ideas and Images in Manuscripts and Books; from Antiquity to the Seventeenth Century*, Toronto; Buffalo: University of Toronto Press, 1994, p. 89. According to Aristotelian physiology, it was commonly believed that women were not suited to the practice of alchemy. While men were considered dry which was considered suitable to a practice that often revolved around fire, women were believed to be wet, not to mention less able in terms of rationality and intellect.

<sup>37</sup> Marelene F. Rayner-Canham and Geoffrey Rayner-Canham, *Women in Chemistry: Their Changing Roles from Alchemical Times to the Mid-Twentieth Century*, Philadelphia: Chemical Heritage Foundation, 2001, pp. 6, 7. Penny Bayer, 'From Kitchen Hearth to Learned Paracelsianism: Women and Alchemy in the Renaissance,' in Stanton J. Linden (ed.), *Mystical Metal of Gold: Essays on Alchemy and Renaissance Culture*, New York: AMS Presses, inc., 2007, pp. 366, 368-9, 370-2, 380. There were, however, a few women who became practitioners of alchemy in their own right by the mid-seventeenth century. These rare exceptions were largely derived from the upper-classes where they were afforded more freedoms than women from the lower and middle classes. While there was some acceptance of women distilling herbal remedies apart of their regular household chores during the seventeenth century, the distilling of metals in alchemical experiments was still frowned upon. Yet, this did not discourage the few gentle and noble women who distilled metals in the use of medicine or for the purpose to transform base metals into gold or silver.

<sup>38</sup> B. J. Gibbons, *Spirituality and the Occult: From the Renaissance to the Twentieth Century*, London: Routledge, 2001, p. 40. The status of magic, as well as alchemy specifically, has continued to be debated within contemporary scholarly discourse, with many scholars arguing that modern science finds its origins in Renaissance magic. While there is a plethora of scholarship dedicated to supporting

analysis of alchemy and the representation of the alchemist in the visual arts.<sup>39</sup> One of the first publications covering the representation of the alchemist in art is *The Alchemist in Life, Literature and Art* (1947) by a Professor of Chemistry, John Read. Read offers an iconographical analysis of a range of representations of the alchemist in a chapter of his modest publication, with a particular focus on representation of the early 'laboratory' and its equipment. Another chemist of note is Abraham Arthur Anne Marie Brinkman and his collection of articles and essays, *De Alchemist in de Prentkunst (The Alchemist in Prints)* (1982), which illustrates the influence of the early graphic tradition on the representation of the alchemist in the seventeenth century. Brinkman concludes that seventeenth-century Netherlandish representations of alchemists were serious portrayals of 'normal scientists'.<sup>40</sup> However, the most extensive publication providing an iconographical analysis of the representation of the alchemist in art is found in a thin catalogue, *Transmutations: Alchemy in Art; Selected Works from the Eddleman and Fisher Collections at the Chemical Heritage Foundation* (2002), by Curator Lloyd DeWitt and Historian of Science and Chemist, Lawrence M. Principe.<sup>41</sup> The catalogue surveys a wide range of

---

the thesis that magical practices contributed to the development of modern science and chemistry specifically, it is a topic that continues to be debated. For Historians of Science who support this thesis, see for example Frances A. Yates, 'The Hermetic Tradition in Renaissance Science' in Charles S. Singleton (ed.), *Art, Science and History in the Renaissance*, Baltimore: Johns Hopkins Press, 1967, pp. 255, 272. Henry, 1990, pp. 584-5, 587. For Historians of Science who discredit magic's role, and more specifically alchemy, in the Scientific Revolution, with some even going as far as claiming it impeded the rise of modern chemistry and postponed the Scientific Revolution, see for example Mary Hesse, 'Hermeticism and Historiography: An Apology for the Internal History of Science' in Roger H. Stuewer (ed.), *Historical and Philosophical Perspectives of Science*, Minneapolis: University of Minnesota Press, 1970, p. 157; Herbert Butterfield, *The Origins of Modern Science 1300-1800*, London: G. Bell and Sons LTD, 1965, p. 191.

<sup>39</sup> See for example Arthur Greenberg, *From Alchemy to Chemistry in Picture and Story*, Hoboken, N. J.: John Wiley, 2007; Arthur Greenberg, *A Chemical History Tour: Picturing Chemistry from Alchemy to Modern Molecular Science*, New York: John Wiley and Sons, 2000; Joachim Schummer and Tami I. Spector, 'The Visual Image of Chemistry: Perspectives from the History of Art and Science,' *International Journal for Philosophy of Chemistry*, 13, 2007, pp. 3-41.

<sup>40</sup> Brinkman, 1982, p. 42.

<sup>41</sup> Also see Lloyd DeWitt and Lawrence M. Principe, 'Alchemy and its Images in the Eddleman and Fisher Collections at the Chemical Heritage Foundation' in Jacob Wamberg (ed.), *Art and Alchemy*, Copenhagen: Museum Tusulanum Press, 2006, pp. 221-249.

representations of the alchemist ranging from the sixteenth to the nineteenth century, many of which originate from the Netherlands. They are primarily examined from the perspective of providing a visual resource of alchemy's debated contribution to the history of chemistry. The Chemical Heritage Foundation holds one of the largest art collections of alchemist imagery in the world. It houses the collection of avid collectors and entrepreneur of laboratory equipment and chemist respectively, Roy T. Eddleman and Chester G. Fisher, further highlighting scientists valued role in regards to this subject.<sup>42</sup>

One of the major issues raised by chemists in regards to the representations of alchemists invokes the question of the realism portrayed in the early modern alchemical laboratory. There is, however, minimal supporting evidence to determine whether the alchemical laboratories were depicted accurately or imaginatively or a combination of both by seventeenth-century Netherlandish artists. Nevertheless, Read and Eric J. Holmyard have proposed that some images are represented with accurate depictions of an early laboratory.<sup>43</sup> Read compares seventeenth-century Netherlandish paintings representing an alchemist in their laboratory with that of depictions in the sixteenth century as a source of evidence on the evolution of the laboratory itself from a blacksmith's shop or the kitchen in the family home to its own purpose-built alchemical laboratory. The equipment included in the interiors are also assumed to highlight the efficient design of distilling apparatus in seventeenth-century paintings.<sup>44</sup> Homyard has also cited seventeenth-century Netherlandish art as having

---

<sup>42</sup> Susan R. Morrissey, 'Alchemical Art', *Science & Technology*, 2002, 80, no. 27, p. 30; DeWitt and Principe, 2006, p. 222.

<sup>43</sup> C. R. Hill, 'The Iconography of the Laboratory', *AMBIX*, 22, no. 2, 1975, pp. 102.

<sup>44</sup> Read, 1947, pp. 15, 33, 75.

provided a ‘good impression’ of how an actual alchemical laboratory looked at the time.<sup>45</sup> This method has been critiqued by C. R. Hill in ‘The Iconography of the Laboratory’ (1975). Hill rightly specifies that the influences of the artist, development of style, artistic conventions of the time, and the market and patronage need to be considered when assessing these works of art.<sup>46</sup> In addition to the accuracy portrayed of laboratory spaces and equipment, it is difficult to determine how much alchemical paintings can be related to actual activities of the alchemists represented.<sup>47</sup>

This debate further extends to the level of realism portrayed in seventeenth-century Netherlandish genre painting in general given its conventional nature – that is the prevalence of particular subject matter and motifs which in combination were used to fulfil a particular concept or allegory.<sup>48</sup> While seventeenth-century Netherlandish artists rendered the world in detail, building on the northern Renaissance style of art, it has been proposed that genre painters in this period did not necessarily reflect the exact reality of daily life.<sup>49</sup> Alternatively, they captured perceptions of reality and imbued images with a fusion of imaginative and moralistic qualities.<sup>50</sup> Nevertheless, although seventeenth-century Netherlandish painting is commonly accepted in

---

<sup>45</sup> Eric J. Holmyard, ‘Alchemical Equipment’ in Charles J. Singer (ed.), *A History of Technology*, vol. 2, Oxford: Clarendon Press, 1967-78, p. 749.

<sup>46</sup> Hill, 1975, p. 102.

<sup>47</sup> Corbett, 2006, p. 256.

<sup>48</sup> Corbett, 2004a, p. 270; Wayne Franits, *Dutch Seventeenth-Century Genre Painting: Its Stylistic and Thematic Evolution*, New Haven: Yale, 2004, p. 4.

<sup>49</sup> Wayne Franits (ed.), *Looking at Seventeenth-Century Dutch Art: Realism Reconsidered*, Cambridge: Cambridge University Press, 1997, p. 1; Franits, 2004, pp. 4-5; Michael North, *Art and Commerce in the Dutch Golden Age*, trans. Catherine Hill, New Haven: Yale University Press, 1997, p. 7. Eddy de Jongh coined the term ‘surface realism’ to separate the realistic depictions from realistic content. In a 1976 exhibition at the Rijksmuseum, ‘Tot lering en vermaak’ (‘to teach and to entertain’), was the first exhibition illustrating the hidden meanings in Dutch genre painting.

<sup>50</sup> Franits, 1997, p. 4.

contemporary scholarship as not reflecting every-day reality,<sup>51</sup> some scholars continue to maintain that Netherlandish art is an objective reflection of reality.<sup>52</sup> The accuracy of the representation of alchemical laboratories poses a challenge in illuminating the alchemical processes and equipment used, which were of primary concern for investigative chemists in the twentieth century. Yet, this focus on pictorial accuracy overlooks the capacity of representations of alchemists to explore the perception of this practice in its own time, which crossed scientific, religious, political, economic and artistic boundaries in this period. More importantly, it does not tackle the key question of the appeal of these often incredibly detailed interior scenes for the original buyers and viewers of these images.

In addition, contemporary surveys on alchemy that have not discerned the subtle, yet important different meanings of alchemy have claimed that alchemists throughout history were not concerned with matters of transmuting base metals into the noble metals of gold and silver literally,<sup>53</sup> but that metallic transformation served as a metaphor for the true nature of alchemy which was the transmutation of the spiritual self.<sup>54</sup> Others have asserted that metallic transmutation in a material sense was the primary objective of alchemy.<sup>55</sup> Yet, ancient and medieval alchemists appear to have

---

<sup>51</sup> A. T. van Deursen, 'The Dutch Republic, 1588-1780' in J. C. H. Blom and E. Lamberts (eds), *History of the Low Countries*, trans. James C. Kennedy, New York: Berghahn Books, 2006, p. 145; Christopher Brown, *Scenes of Everyday Life: Dutch Genre Paintings from the Mauritshuis*, Oxford: Ashmolean Museum, 1999, p. 174.

<sup>52</sup> See Brown, 1999, p. 20; Rosa Giorgi, *European Art of the Seventeenth Century*, Los Angeles: Getty Publications, 2006, p. 18.

<sup>53</sup> Philip Ashley Fanning, *Isaac Newton and the Transmutation of Alchemy: An Alternative View of the Scientific Revolution*, Berkeley: North Atlantic Books, 2009, p. 2.

<sup>54</sup> See for example Battistini, 2007, p. 252; Stanislas Klosowski de Rola, *Alchemy the Secret Art*, London: Thames and Hudson, 1973, p. 12; Titus Burekhardt, *Alchemy: Science of the Cosmos, Science of the Soul*, trans. William Stoddart, Baltimore: Maryland: Penguin, 1971, p. 9; Grant, 1980, p. 138; Read, 1947, pp. 1, 23.

<sup>55</sup> See for example Frank Sherwood Taylor, *The Alchemists: Gold: Historical and Economic Aspects*, New York: Arno Press, 1974, p. 1.

been solely interested in the transmutation of base metals into gold or silver with no historical records to indicate that spiritual alchemy existed prior to the sixteenth century.<sup>56</sup> Roger Bacon (1214-1294) and Francis Bacon (1561-1626), both revered for their contributions to the development of science as well as practicing alchemists, described alchemy as the transmutation of base metals into gold.<sup>57</sup> Roger Bacon further distinguished two types of alchemy: practical alchemy of transmuting base metals into gold and theoretical alchemy which dealt with understanding the nature of matter.<sup>58</sup>

A shift appears to have occurred during the late sixteenth century, when spiritual enlightenment became a primary objective.<sup>59</sup> This shift was likely influenced by the rediscovery and translation of writings derived from Ancient Egypt, attributed to Hermes Trismegistus,<sup>60</sup> who was not only attributed to the alchemical writings of the *Emerald Tablet*, but also teachings in spiritual progress.<sup>61</sup> Several works attributed to Hermes consist of a range of knowledge on science, magic and philosophy which as a collection has become known as the *Hermetica* and were believed to teach ancient wisdom.<sup>62</sup> In terms of spiritual progress, Hermetism taught that human's souls were godly, originating from a divine spark and that Hermetism sought to claim humanities

---

<sup>56</sup> Arthur Edward Waite, *The Secret Tradition in Alchemy: Its Development and Records*, London: Kegan Paul, Trench, Trubner & Co., 1926, p. 366; Taylor, 1974, pp. 29-30, 99. Taylor quotes St. Thomas Aquinas (1225-1274): 'The chief function of the alchemist is to transmute metals, that is to say, the imperfect ones, in a true manner and not fraudulently.'

<sup>57</sup> Roger Bacon, *The Mirror of Alchemy*, Whitefish, M.T.: Kessinger Publishing, 2004, p. i; Francis Bacon, *The Advancement of Learning* (1605), London: Dent; New York: Dutton, 1950, p. 101.

<sup>58</sup> Roger Bacon, 'Opus terium', in *Opera quaedam hactenus inedita* (1214-1294), ed. J. S. Brewer, vol. 1, London: Longman, Green: Longman and Roberts, 1859, pp. 39-40.

<sup>59</sup> Grant, 1980, p. 3; Betty Jo Teeter Dobbs, *The Foundations of Newton's Alchemy, or, "The hunting of the green lyon"*, Cambridge: Cambridge University, 1983, p. 64.

<sup>60</sup> John Gribbin, *Science: A History 1543-2001*, London: Allen Lane, 2002, p. 17.

<sup>61</sup> Fanning, 2009, pp. 5-6; Rosemary Guiley, *The Encyclopedia of Magic and Alchemy*, New York: Facts on File, 2006, p. 135.

<sup>62</sup> Ball, 2006, p. 149. Fernandez-Ármesto, 2003, p. 216. In actuality, these writings are believed to have been written more recently, having been dated between the second or third centuries CE.

divinity through understanding.<sup>63</sup> In addition, the alchemical writings of Heinrich Khunrath (c.1560-1605) published posthumously in 1609, have been credited as the precursor to spiritual alchemy,<sup>64</sup> by Christianising the study of alchemy and providing an alchemical interpretation of the Bible in *Amphitheatrum sapientiae aeternae (The Amphitheatre of Eternal Wisdom)*.<sup>65</sup> This was then complemented by the philosophical secret society of the Rosicrucian movement during the early seventeenth century that combined alchemy with the mystical teachings of Cabbala, which then propounded the shift towards a spiritual brand of alchemy.<sup>66</sup> This shift to a spiritual interpretation of alchemy was also likely to have been influenced by the Reformation which increasingly spread its influence throughout the Netherlands in the sixteenth and seventeenth centuries. The Protestant faith sought direct spiritual communion with God via understanding of scripture rather than the Catholic tradition of restricted access through mediation.<sup>67</sup>

Metallic transmutation was, nevertheless, still one of the dominant objectives in spiritual alchemy in early modern Europe. Proponents of this view believed that one could not exist without the other. The transmutation of base metals into the most precious metals of gold or silver, was evidence that spiritual illumination had been achieved, bringing the alchemist closer to God.<sup>68</sup> In this way, the alchemist adhered to

---

<sup>63</sup> Fanning, 2009, pp. 5-6.

<sup>64</sup> Waite, 1926, pp. 257, 346; Peter Forshaw, ‘‘Alchemy in the Amphitheatre’’: Some Considerations of the Alchemical Content of the Engravings in Heinrich Khunrath’s Amphitheatre of Eternal Wisdom (1509)’ in Jacob Wamberg (ed.), *Art and Alchemy*, Copenhagen: Museum Tusulanum Press, 2006, p. 211.

<sup>65</sup> Forshaw, 2006, p. 196; Guiley, 2006, p. 162.

<sup>66</sup> Frances A. Yates, *The Rosicrucian Enlightenment*, London: Routledge and Kegan Paul, 1972, p. 222.

<sup>67</sup> Deursen, 2006, p. 162; J. L. Price, *The Dutch Republic in the Seventeenth Century*, Basingstoke: Palgrave Macmillan, 1998, p. 90; Mariët Westermann, *The Art of the Dutch Republic, 1585-1718*, London, Laurence King, 2005, p. 47.

<sup>68</sup> Grant, 1980, p. 3; Deborah E. Harkness, *John Dee’s Conversations with Angels: Cabala, Alchemy, and the End of Nature*, Cambridge: Cambridge University Press, 1999, p. 201.



the idea that he must live a religious and pious life in order to achieve transmutation in turning base metals into gold or silver as it was believed to be a gift from God.<sup>69</sup> In fact, it was believed that transmutation could not be achieved until the alchemist purged himself of all vices, including covetousness – the desire to convert base metals into their most precious counterparts.<sup>70</sup> Therefore, it can be concluded that the transmutation of metal was secondary to transmutation and purification of the spiritual self, at least in theory.

With this, it was believed that alchemy held the key to universal knowledge, on both the physical and metaphysical planes by bridging the gap between the two.<sup>71</sup> Spiritual elevation could be achieved, it was believed, by channelling the energies of nature. As everything was created in God's image, it was believed that all matter was impregnated with the divine.<sup>72</sup> As part of this quest, alchemy included the accumulation of detailed knowledge of matter and its elements which contributed to the knowledge of the laws governing the composition of substances.<sup>73</sup> Gaining the knowledge of God's creations thus resulted in man becoming one with God.<sup>74</sup> At least in this regard, the transmutation and refining of both the human spirit and metal were inseparable to the process.<sup>75</sup>

---

<sup>69</sup> Roberts, 1994, p. 78.

<sup>70</sup> Keith Thomas, *Religion and the Decline of Magic*, New York: Scribner, 1971, p. 643.

<sup>71</sup> Klossowski de Rola, 1973, p.7.

<sup>72</sup> Rossi Paola, *The Birth of Modern Science*, trans. Cynthia De Nardi Ipsen, Oxford: Wiley-Blackwell, 2001, p. 20.

<sup>73</sup> Battistini, 2007, p. 252.

<sup>74</sup> Klossowski de Rola, 1973, pp. 13-4.

<sup>75</sup> Edwardes, 1978, p. 17.

However, there were alchemists who continued to be solely interested in the transmutation of base metals into gold or silver well into the seventeenth century. Yet, historians have often claimed that they were not ‘true’ alchemists.<sup>76</sup> In recent scholarship, Principe and William Newman critically examine the popular spiritual interpretation of alchemy who asserted that the objective of the majority of alchemists was solely material.<sup>77</sup> While they do not reject the idea that spiritual alchemy existed, they assert that the seventeenth-century school of spiritual alchemy was small and fairly localised; therefore it is incorrect to describe alchemy in this way as a whole. Nor do they reject the religious and spiritual consideration intertwined with alchemy, but stipulate that it was no more so than early modern natural philosophy in general.<sup>78</sup>

Another trend in early modern alchemy was its use for medicinal purposes which became known as ‘iatrochemistry’.<sup>79</sup> Paracelsus (1493-1541) and his followers forwarded the use of alchemy as a source to create medicine,<sup>80</sup> to cure sickness and to extend life.<sup>81</sup> Paracelsus claimed that no one could be a physician without the practice of alchemy.<sup>82</sup> While the medicinal application of alchemy reached its peak during the early sixteenth century,<sup>83</sup> the idea of using chemical pharmacology has continued today. This was not a new idea; the ‘Philosopher’s Stone’ that was believed to transmute metal was also believed to be used as a medicine, to perfect imperfect

---

<sup>76</sup> Battistini, 2007, p. 252; Klossowski de Rola, 1973, p. 12.

<sup>77</sup> Lawrence M. Principe and William R. Newman, ‘Some Problems with the Historiography of Alchemy’ in Anthony Grafton (ed.), *Secrets of Nature: Astrology and Alchemy in Early Modern Europe*, Cambridge, Mass.: MIT Press, 2001, p. 397.

<sup>78</sup> Principe and Newman, 2001, p. 400.

<sup>79</sup> Dixon, 1980, p. 17; Thomas, 1971, p. 228; Read, 1947, p. 7.

<sup>80</sup> Thomas, 1971, p. 228.

<sup>81</sup> Fanning, 2009, p. 2.

<sup>82</sup> Taylor, 1974, p. 198.

<sup>83</sup> Dixon, 1980, p. 3.

bodies, whether metal or those of the flesh.<sup>84</sup> Indeed Paracelsus, defined alchemy as ‘nothing but the art which makes the impure into pure through fire’.<sup>85</sup> This idea of the transmutation and perfection of human flesh extended to the idea of the creation of artificial life. As caterpillars could transmute into butterflies, it was therefore believed they could induce spontaneous generation at will.<sup>86</sup> In 1572, Paracelsus wrote the following alchemical instructions for creating artificial human life:

Let the semen of a man putrefy by itself in a sealed cucurbit [gourd] with the highest putrefaction of venter equines [horse manure] for forty days, or until it begins to live, move, and be agitated, which can easily be seen...If now, after this, it be every day nourished and fed cautiously with the Arcanum of human blood, and kept for forty weeks in the perpetual and equal heat of venter equines, it becomes thencefold a true living infant, having all the members of a child that is born from a woman, but much smaller. This we call a homunculus.<sup>87</sup>

The practical operative aspects of alchemy also resulted in discoveries of important materials. Distillation of crude oil provided gasoline and other fuels. Sulphuric, nitric and hydrochloric acids were all prepared by distillation which was used in separating precious metals. These technical processes in themselves, like alcohol distillation and sublimation, which became vital for industry, originated from the operative aspects of

---

<sup>84</sup> Bacon, 2004, p. i.

<sup>85</sup> Paracelsus, *Selected Writings* (1493-1541), ed. Jolande S. Jacobi, Princeton: Princeton University Press, 1951, p. 143.

<sup>86</sup> William R. Newman, *Promethean Ambitions: Alchemy and the Quest to Perfect Nature*, Chicago: University of Chicago Press, 2004, p. 164. Also see John Michael Greer, *The New Encyclopedia of the Occult*, St. Paul, Minnesota: Llewellyn Worldwide, 2003, p. 232.

<sup>87</sup> Paracelsus cited in William P. Cheshire Jr., ‘In Search of the Philosopher’s Clone: Immortality through Replication’, in Susan A. Salladay (ed.), *Aging, Death, and the Quest for Immortality*, Grand Rapids, Michigan: Wm. B. Eerdmans Publishing, 2004, p. 185.

alchemy.<sup>88</sup> Such alchemical techniques also lent themselves to the production of pigments and glazes.<sup>89</sup>

It is worth noting that the term ‘alchemist’ and ‘chymist’ were used interchangeably without discrimination during the seventeenth century, despite some contemporary historians attempting to do so.<sup>90</sup> Such historians of science would attempt to distinguish the rational aspects to chemistry while resigning the mystical aspects to alchemy.<sup>91</sup> However, the distinction between alchemists and chemists did not exist during this period.<sup>92</sup> Chemistry simply meant the transformation of one substance into another as was alchemy.<sup>93</sup> The term ‘science’ was also used to describe alchemy during the early modern period.<sup>94</sup> However, it did not hold the same connotations as it does today. When it was coined in c.1300, it was synonymous with knowledge. From the 1670s, it was commonly used to describe non-art studies and the use of the practical application of knowledge.<sup>95</sup> In this way, alchemy was considered an

---

<sup>88</sup> Taylor, 1974, pp. ix-x, 3; Principe and DeWitt, 2002, p. 6. Paolo Rossi, *Francis Bacon: From Magic to Science*, trans. Sacha Rabinovitch, London: Routledge and Kegan Paul, 1968, p. 20. Alchemists were also involved in the manufacturing of glass, mirrors, lead, steel, lime, gunpowder, oils and spirits. For more information see Newman, 2004, p. 227.

<sup>89</sup> Davidson, 1979, pp. 38-9. For more information regarding the alchemical techniques used in creating pigments see Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution*, Chicago: University of Chicago Press, 2004, pp. 140-1; Newman, 2004, p. 164.

<sup>90</sup> Principe, 2000, pp. 30-1.

<sup>91</sup> For example see Marie Boas, *Robert Boyle and Seventeenth-Century Chemistry*, Cambridge: Cambridge University Press, 1958, pp. 38, 48-9; Michael White, *Isaac Newton: The Last Sorcerer*, London: Fourth Estate, 1997, pp. 132-3.

<sup>92</sup> Lawrence and DeWitt, 2002, p. 2; White, 1997, p. 133. For further discussion see Ferdinando Abbri, ‘Alchemy and Chemistry: Chemical Discourses in the Seventeenth Century’, *Early Science and Medicine*, 5, no. 2, 2000, pp. 214-226, 252. Abbri concluded that the fluidity of the terms alchemy and chemistry during the seventeenth century revealed differing definitions and constructions where there was an absence of a fully defined chemistry.

<sup>93</sup> Taylor, 1974, p. 195. Also see Martinus Rulandus, *Lexicon of Alchemy (1532-1602)*, Whitefish, M.T.: Kessinger Publishing, 1992, pp. 101-2. The sixteenth-century alchemist defined Chymia as ‘the art of extracting and condensing, also of separating and cleansing.’

<sup>94</sup> Bacon, 2004, p. i.

<sup>95</sup> Douglas Harper, ‘Science’, *Online Etymology Dictionary*, 2001-2010, <http://www.etymonline.com/index.php?term=science> accessed: February 9, 2011.

important tool for knowledge from the beginning of civilization until the eighteenth century.<sup>96</sup>

As can already be deduced, alchemy has also been affixed to magic, or more specifically as natural magic. During the early modern period in Europe, magic was viewed as the manipulation of natural objects and processes, unlike the commonly perceived nexus today between magic and supernatural powers.<sup>97</sup> It was commonly thought that only God could affect the supernatural, thus magicians or practitioners of alchemy, believed they could only manipulate objects by harnessing the power of nature.<sup>98</sup> Francis Bacon also comments on the misapplied and abuse of the term natural magic in *The Advancement of Learning* (1605), which he describes as natural wisdom, separate from superstition:

I may revive and reintegrate the misapplied and abused name of *natural magic*; which, in the true sense, is but *natural wisdom*, or *natural prudence*; taken according to the ancient acception, purged from vanity and superstition.<sup>99</sup>

In his study of magical practices in England during the sixteenth and seventeenth centuries, Keith Thomas highlights another division in the practice of magic during the Renaissance which could be applied to alchemy specifically and resolve the reasons behind the varying perceptions of alchemy. He defines the two strands as intellectual magic and popular magic. Popular magic, as Thomas defines it, was

---

<sup>96</sup> Battistini, 2007, p. 6.

<sup>97</sup> John Henry, *The Scientific Revolution and the Origins of Modern Science*, Basingstoke, UK: Palgrave Macmillan, 2008, p. 57.

<sup>98</sup> Henry, 1990, p. 584.

<sup>99</sup> Bacon, 1950, p. 90.

adopted from the Middle Ages and was largely unchanged during the Renaissance revival of magical texts. As most texts in this period were written in Latin until the mid-seventeenth century, they were only accessible to the educated. The village wizard learned verbally as opposed to reading books which they rarely possessed. Thus, the practices of the ‘village wizard’ were largely independent of the magical interest that natural philosophers took during this period. However, Thomas states that alternatively it was the intellectual magician who was influenced by the village magician who tried to rationalise their magical recipes.<sup>100</sup> This difference could be the result of the conflicting perception of alchemy and how it was represented in art. This distinction reflects the two types of alchemy as had been defined by Roger Bacon, between the practical and theoretical alchemy as mentioned above.<sup>101</sup>

The seekers of transforming base metals into gold or silver were often negatively viewed for their vanity and greed and their fruitless search for the unattainable. These views were not without good reason. The alchemist’s work with fire and high-pressure apparatus was dangerous, posing risks to their life.<sup>102</sup> Some even killed themselves by mishandling of dangerous chemicals and inhaling poisonous fumes.<sup>103</sup> The frequent use of mercury in alchemy has been particularly attributed to deathly illness as well as madness.<sup>104</sup> Some of the medicinal preparations from alchemy were also poisonous as arsenic, mercury and lead and other heavy metals were often used

---

<sup>100</sup> Thomas, 1971, pp. 228-9.

<sup>101</sup> Bacon, 1859, pp. 39-40.

<sup>102</sup> Principe and DeWitt, 2002, p. 6.

<sup>103</sup> Richard M. Swiderski, *Quicksilver: A History of the Use, Lore and Effects of Mercury*, Jefferson, North Carolina: McFarland, 2008, p. 42.

<sup>104</sup> Cathy Cobb and Harold Goldwhite, *Creations of Fire: Chemistry’s Lively History from Alchemy to the Atomic Age*, New York: Plenum Press, 1995, p. 109; Harold L. Klawans, *Newton’s Madness: Further Tales of Clinical Neurology*, New York, Harper and Row Publishers, 1990, p. 35.

in their preparation.<sup>105</sup> Obsession with material wealth also led some alchemists to use all their money for the study of alchemy, reducing them to poverty. On the other hand there were those who cheated patrons out of money by promising rewards of gold by concealing bits of gold in stirring tools made to appear at the right time.<sup>106</sup> Some even hired themselves out to wealthy patrons, promising riches, however, failure led them to imprisonment or even to execution.<sup>107</sup> In these aspects, alchemy was the subject of such mistrust that transmutation was made illegal in many parts of Europe during the early modern period.<sup>108</sup>

It was also believed that some alchemists cast themselves as godly and powerful as they aimed to control nature and harness it to the benefit of humankind. This was seen by some orthodox Catholics and Protestants as arrogant and blasphemous.<sup>109</sup> It was believed that trying to manipulate nature was an attempt to usurp God because this powerful type of creationist and transformative knowledge was reserved for Him alone.<sup>110</sup> An example of a god-like type of alchemical practitioner was the English hermetist alchemist John Dee (1527-1608/9), who believed that he could ‘bring about a new global order run by divine principles’.<sup>111</sup> Dee believed that his mix of traditional alchemical practice and knowledge was communicated to him by angels,

---

<sup>105</sup> Principe and DeWitt, 2002, p. 4.

<sup>106</sup> Ibid., p. 6; Geoffrey Chaucer, *The Canterbury Tales: From the Text and With the Notes and Glossary of Thomas Tyrwhitt*, London: George Routledge, 1867, p. 492. This act has been described in Geoffrey Chaucer’s *The Canterbury Tales*, the well known fourteenth-century collection of poems.

<sup>107</sup> Guiley, 2006, p. 263; Tara E. Nummedal, *Alchemy and Authority in the Holy Roman Empire*, Chicago: University of Chicago Press, 2007, pp. 147-8. In the late sixteenth century to the early seventeenth century, a number of alchemists were tried and executed in highly publicised and elaborate ceremonies.

<sup>108</sup> Thomas, 1971, p. 245; Corbett, 2004b, note on page 172. Pope John XXII (1316-34) issued a decree in 1317 against alchemy in response to counterfeit gold being manufactured. It was completely banned by Charles V of France (1338-1380) in 1380. Henry IV of England (1367-1413) banned alchemy in 1404, while Venice banned it in 1418.

<sup>109</sup> Principe and DeWitt, 2002, p. 6.

<sup>110</sup> Newman, 2004, pp. 129, 147.

<sup>111</sup> Fanning, 2009, p. 85.

which in turn made him the recipient of Adam's true alchemy.<sup>112</sup> It was supposed by some alchemists that Adam was the first alchemist for he allegedly knew the secrets of nature and the Philosopher's Stone which accounted for his longevity; it is stated in Genesis 5.5 that he lived to 930 years.<sup>113</sup> Despite his piety, Dee was accused of heresy and demonology and experienced brief detention.<sup>114</sup> In this way, alchemy was also often linked to demonology well into the seventeenth century and it was widely believed that those who patronised the services of an alchemist were at risk of eternal damnation.<sup>115</sup>

Negative stereotypes of alchemists were also propagated in literature and on the stage during the seventeenth century. English playwright Ben Jonson (1527-1637), for example, portrayed a satirical representation in *The Alchemist*, first performed in 1610. The alchemist in the play was used to display greed and folly by representing the charlatan who promised the gullible the Philosopher's Stone.<sup>116</sup> The play represented a cross-section of social classes who sought the services of the charlatan alchemists,<sup>117</sup> reflecting their broad appeal. Yet, despite the commonly held negative conceptions, the promised rewards of alchemy proved far more tempting, with alchemists and those who sought their services derived from all walks of life.

---

<sup>112</sup> Harkness, 1999, p. 201.

<sup>113</sup> Roberts, 1994, p. 13.

<sup>114</sup> György Endre Szönyi, *John Dee's Occultism: Magical Exaltation Through Powerful Signs*, Albany: State University of New York Press, 2004, p. 274; Peter J. French, *John Dee: The World of an Elizabethan Magus*, London: Routledge and K. Paul, 1987, p. 177.

<sup>115</sup> Roslynn Haynes, 'The Alchemist in Fiction: The Master Narrative' in Joachim Schummer, Bernadette Bensaude-Vincent and Brigitte van Tiggelen (eds), *The Public Image of Chemistry*, Singapore: World Scientific, 2007, p.11; Peter Elmer, *The Healing Arts: Health, Disease and Society in Europe, 1500-1800*, Manchester: Manchester University Press, 2004, p. 121. Henry, 1990, pp. 584-5. There was a belief that demons could be summoned, who could not control supernatural powers as that was believed to be exclusively in the realm of God, but held greater knowledge of nature in order to manipulate its effects.

<sup>116</sup> John H. Cartwright and Brian Baker, *Literature and Science: Social Impact and Interaction*, Santa Barbara: ABC-CLIO, 2005, p. 47; Read, 1947, p. 39.

<sup>117</sup> Anne Barton, *Ben Jonson: Dramatist*, Cambridge: Cambridge University Press, 1984, p. 138.



In contrast to the negative stereotype of the alchemist as charlatan or fool, some found prestige by working for the royal court.<sup>118</sup> In the early seventeenth century, King Henry IV of France (1553-1610) surrounded himself with alchemists experimenting in ways to extend the monarch's life.<sup>119</sup> Paracelsian alchemy was also popular with the Holy Roman Emperor, Rudolf II of Prague (1576-1612), who employed alchemists to make gold alloys for the German mint.<sup>120</sup> Many members of the aristocracy and monarchs themselves also practiced alchemy, including King Charles II of England (1630-1685),<sup>121</sup> who had special chambers built in his palace to conduct alchemical study.<sup>122</sup> In addition, some of the most revered leaders of the Scientific Revolution also worked extensively in alchemy. Sir Isaac Newton (1643-1727) is well known for his interest in alchemy, writing thousands of pages on alchemical ideas and experiments over thirty years.<sup>123</sup> As a result, Newton has been described as one of the last magicians.<sup>124</sup> It is believed that he kept several alchemical furnaces burning while he wrote his famous work *Philosophiae Naturalis Principia Mathematica* (*Mathematical Principles of Natural Philosophy*).<sup>125</sup> While the *Principia* was regarded by many as the leading monument in Newton's career, it has been suggested that his alchemical practice was central to his primary concerns.<sup>126</sup> Some historians of science go as far as to claim that his interest in magic, and

---

<sup>118</sup> Wilford, 2006, p. 1.

<sup>119</sup> Ibid., p. 2.

<sup>120</sup> Elmer, 2004, p. 113; Smith, 1994, p. 126.

<sup>121</sup> Charles Samuel Thompson, *Alchemy and Alchemists*, Toronto, General Publishing Company Ltd., 2002, p. 146; Abraham, 1998, p. xv.

<sup>122</sup> Battistini, 2007, p. 354.

<sup>123</sup> Wilford, 2006, p. 2.

<sup>124</sup> Charles Webster, *From Paracelsus to Newton: Magic and the Making of Modern Science*, Cambridge: Cambridge University Press, 1982, p. 9.

<sup>125</sup> Thomas Goldstein, *Dawn of Modern Science: From the Arabs to Leonardo Da Vinci*, Boston: Houghton Mifflin, 1980, p. 141.

<sup>126</sup> Betty Jo Teeter Dobbs, 'Newton's Commentary on the Emerald Tablet of Hermes Trismegistus: Its Scientific and Theological Significance', in Ingrid Markel and Allen G. Debus (eds), *Hermeticism and the Renaissance: Intellectual History and the Occult in Early Modern Europe*, London: Associated University Presses, 1988, p. 182. Jane P. Davidson, 'Religious and Mythological Paintings by David Teniers II', Ph.D., University of Kansas, 1975, p. 140. Upon Newton's death, it was found that he had owned over a hundred books on alchemy.

alchemy specifically, was integral to his scientific discoveries and contributed significantly to his theories of matter and physics.<sup>127</sup> Newton did not perceive his studies in alchemy in particular as separate from his studies in what we would call ‘hard science’ today, by associating it with learning the nature of matter itself and its forces between particles.<sup>128</sup>

Newton’s interest in alchemy was strongly influenced by Robert Boyle (1627-1691),<sup>129</sup> who is considered by many to be the true father of chemistry.<sup>130</sup> Boyle has been credited for applying the scientific method to alchemy where his publication of *The Sceptical Chymist* (1661) marked the turning point.<sup>131</sup> The alchemist of noble birth spent years in search of the Philosopher’s Stone.<sup>132</sup> It has been proposed that since he possessed financial security he was able to practice alchemy in the open, unlike Newton.<sup>133</sup> According to Boyle, it was possible to transmute base metals into gold. In 1680, he stated that ‘there exists conceal’d in the world [alchemists] of a much higher order able to transmute baser Metalls into perfect ones’.<sup>134</sup> However, Boyle was also sceptical of those who boldly proclaimed their achievement in transmutation, commenting, ‘I have been still apt to fear that either these persons have had a design to deceive others; or have had not skill and circumspection enough to

---

<sup>127</sup> Henry, 1990, pp. 593, 594; White, 1997, p. 5; Copenhaver, 1990, pp. 264-5.

<sup>128</sup> I. Bernard Cohen and George E. Smith (eds), *The Cambridge Companion to Newton*, Cambridge: Cambridge University Press, 2002, p. 23.

<sup>129</sup> White, 1997, p. 134.

<sup>130</sup> Greenberg, 2000, p. 85.

<sup>131</sup> Gribbin, 2002, p. 140.

<sup>132</sup> Fritz Ferchl and A. Süssenguth, *A Pictorial History of Chemistry*, London: William Heinemann Ltd., 1939, p. 136; White, 1997, pp. 136-7; Lawrence M. Principe, *The Aspiring Adept: Robert Boyle and His Alchemical Quest*, Princeton: Princeton University Press, 2000, p. 32.

<sup>133</sup> White, 1997, pp. 136-7.

<sup>134</sup> Principe, 2000, p.32.

keep themselves from being deceived'.<sup>135</sup> His scorn was reserved for two types of alchemists: those he considered to be charlatans and those only concerned with the mechanical aspects of transmuting base metal into gold or silver, devoid of theoretical or philosophical treatment.<sup>136</sup> These second types of alchemists were dubbed with the derogatory name of 'puffer' because of their use of the bellows to fan the flames.<sup>137</sup> This scorn for the alchemist only concerned with transmuting base metals into gold appears to have reflected 'popular alchemy,' as previously referred to by Keith Thomas which was the chief concern prior to the Renaissance.<sup>138</sup> Nevertheless, Boyle himself was also subject to criticism for his activities in alchemy.<sup>139</sup>

The seventeenth-century Netherlands in which the majority of representations of alchemists are derived from was also known for its polarities and contradictions. After the revolts against the absolutist regime of the Spanish and subsequent backlash during the late sixteenth century, 'heretics' were ordered out of the cities in the Catholic Spanish Netherlands (Southern Netherlands) as it was known during the Spanish occupation between 1579 and 1713. A staggering 200,000 people did just that for either religious or economic reasons, which was not an insignificant number for the time. By 1589, the population of Antwerp was reduced to less than half it had been during the 1560s.<sup>140</sup> From Flanders, 150,000 fled to the northern Netherlands.

---

<sup>135</sup> Robert Boyle, *The Sceptical Chymist* (1661), London: J. M. Dent and Sons, Ltd; New York: E. P. Dutton and Co. 1911, p. 102.

<sup>136</sup> Principe, 2000, p. 33.

<sup>137</sup> Principe and DeWitt, 2002, p. 18; Guiley, 2006, p. 263.

<sup>138</sup> Thomas, 1971, pp. 228-9.

<sup>139</sup> Principe and DeWitt, 2002, p. 6.

<sup>140</sup> W. P. Blockmans, 'The Formation of a Political Union, 1300-1600,' in J. C. H. Blom and E. Lamberts (eds), *History of the Low Countries*, trans. James C. Kennedy, New York: Berghahn Books, 2006, p. 140; Eric Jan Sluijter, "'All Striving to adorne their houses with costly peeces": Two Case Studies of Painting in Wealthy Interiors' in Mariët Westermann (ed.), *Art and Home: Dutch Interiors in the Age of Rembrandt*, exh. cat., Denver, Colo: Denver Art Museum; Newark, N.J.: Newark Museum; Zwolle, Netherlands: Waanders Publishers, 2001, p. 103.

This contributed to an economic boom in the northern Netherlands as most of the refugees were traders, craftspeople, intellectuals and artists.<sup>141</sup> As trade flourished, beginning in sixteenth-century Antwerp and which later shaped the seventeenth-century Dutch Republic, larger sections of the population were able to afford luxury items.<sup>142</sup> Artists were also major beneficiaries of this newfound wealth. Many artists flocked to Antwerp, making it the largest artistic centre in the Netherlands during the sixteenth century.<sup>143</sup> A large number of working artists in Antwerp still remained there during the seventeenth century with an average of fourteen master painters being admitted to the painter's guild each year.<sup>144</sup>

Many artists also flocked to other large cities in the Dutch Republic including Leiden and Haarlem during the seventeenth century, which became thriving economic and cultural centres that gave rise to important schools of painting where millions of paintings were produced.<sup>145</sup> This increased competition amongst painters led to paintings being sold at relatively low prices, which made them readily available and affordable to larger segments of the population.<sup>146</sup> Painters no longer relied upon commissioned works from the Court or the Church.<sup>147</sup> Artists responded to a new taste for small-scale genre art for a market consisting of mercantile and middle-class

---

<sup>141</sup> Blockmans, 2006, p. 140.

<sup>142</sup> Elizabeth Alice Honig, *Painting and the Market in Early Modern Antwerp*, New Haven: Yale University Press, 1998, p. 13; Madlyn Millner Kahr, *Dutch Painting in the Seventeenth Century*, second ed., Cambridge, Massachusetts: Perseus Publishing, 1993, pp. 9-10.

<sup>143</sup> Honig, 1998, p. 13; Mariët Westermann, "'Costly and Curious, Full off pleasure and home contentment'" Making Home in the Dutch Republic', in Mariët Westermann (ed.), *Art and Home: Dutch Interiors in the Age of Rembrandt*, exh. cat. Denver, Colo: Denver Art Museum; Newark, N.J.: Newark Museum; Zwolle, Netherlands: Waanders Publishers, 2001, p. 24.

<sup>144</sup> Bernadette van Haute, *David III Ryckaert: A Seventeenth-Century Flemish Painter of Peasant Scenes*, Turnhout, Belgium: Brepols, 1999, note on page 223.

<sup>145</sup> Marten Jan Bok, 'The Artist's Life' in Guido M. C. Jansen (ed.), *Jan Steen: Painter and Storyteller*, exh. cat., Washington: National Gallery of Art; Amsterdam: Rijksmuseum; New Haven: Yale University Press, 1996, p. 25; Kahr, 1993, p. 5; Deursen, 2006, p. 174.

<sup>146</sup> Honig, 1998, pp. 14, 17; Kahr, 1993, p. 10.

<sup>147</sup> Honig, 1998, p. 13.

clients that originated in the sixteenth-century Southern Netherlands but developed in the north, establishing their own unique iconography.<sup>148</sup> Protestantism played a part in shaping this trend,<sup>149</sup> however, Catholics were also involved and thus reflected a national trend rather than sectarian development.<sup>150</sup> Although the northern Netherlands was independent they did not originally think of themselves as distinct from the south.<sup>151</sup> The majority of art was bought on the open market in both northern and Southern Netherlands.<sup>152</sup> Artists modified their style in order to appeal to the tastes of the new consumers and competition between artists assured novelty in style and subject matter.<sup>153</sup> The popularity for representations of the alchemist in this region was partly due to the rise in genre painting.<sup>154</sup>

The nature of the seventeenth-century Netherlandish art market also supported a culture of copying and the mass production of images for direct sale to clients or to art dealers.<sup>155</sup> The culture of copying, either copying of style or more blatant reproductions, served to fulfil demand for certain types of themes in order to guarantee buyers.<sup>156</sup> This demand was also met by artists possessing studio assistants.<sup>157</sup> Many works of art during this period were not attributed to a particular

---

<sup>148</sup> Grant, 1980, p. 141; Hill, 1975, p. 105; Corbett, 2006, p. 251; Haute, 1999, p. 20. The divide between the Dutch and Flemish schools of art is a nineteenth-century construction which has been challenged within Karolien De Clippel and Michael Hoyle, 'Two Sides of the Same Coin? Genre Painting in the North and South during the Sixteenth and Seventeenth Centuries', *Simiolus: Netherlands Quarterly for the History of Art*, 32, no. 1, 2006, pp. 17, 19.

<sup>149</sup> Kahr, 1993, p. 11. John Calvin specified that art should only represent what can be seen.

<sup>150</sup> *Ibid.*, p. 8.

<sup>151</sup> Westermann, 2005, p. 19.

<sup>152</sup> Svetlana Alpers, *The Art of Describing: Dutch Art in the Seventeenth Century*, London: John Murray, 1983, pp. xxii, 1; Honig, 1998, p. 18.

<sup>153</sup> Honig, 1998, p. 14; Kahr, 1993, pp. xi, 9-10.

<sup>154</sup> Corbett, 2004b, p. 164.

<sup>155</sup> Davidson, 1979, p. 4.

<sup>156</sup> Ernest H. Gombrich, *The Story of Art*, eleventh ed., London: Phaidon, 1996, p. 312; Haute, 1999, p. 17.

<sup>157</sup> Haute, 1999, p. 17.

artist. Moreover, when the identity of an artist was known, art consumers would have known little about the artists work or reputation.<sup>158</sup> Popular motifs were adopted by even the most established artists which serves as evidence of the tolerant attitude towards copying.<sup>159</sup> Artists were able to build reputations for their ability in copying as was the case with Antwerp born David Teniers the Younger (1610-1690),<sup>160</sup> who was influenced by other artists, adopting colour schemes and compositions as well as copying entire figures from other artists' works of art.<sup>161</sup>

The Reformed Church was increasingly becoming Calvinist in the seventeenth century which became the official Church of the Dutch Republic.<sup>162</sup> Calvinism encouraged capitalism,<sup>163</sup> however, the Church opposed the accumulation of luxury goods as merely as an overt display of wealth and power. Despite this, there was no significant display from the rising urban middle-classes, the burghers, to curb their consumption.<sup>164</sup> As the middle classes became more prosperous, they spent their surplus wealth on home furnishings and paintings.<sup>165</sup> The Dutch even began to work longer in order to afford luxurious home furnishings in an increasingly consumerist society.<sup>166</sup> The accumulation of goods and wealth marked ones social standing in

---

<sup>158</sup> Klaske Muizelaar and Derek Phillips, *Picturing Men and Women in the Dutch Golden Age: Paintings and People in Historical Perspective*, New Haven: Yale University Press, 2003, p. 3.

<sup>159</sup> Haute, 1999, p. 18; Davidson, 1979, pp. 59-60.

<sup>160</sup> Haute, 1999, p. 18.

<sup>161</sup> Davidson, 1979, p. 12. Teniers was greatly influenced by Adriaen Brouwer (1605/6-1638) in his early career who will be discussed at more length in the next chapter.

<sup>162</sup> Deursen, 2006, p. 162; Price, 1998, p. 90.

<sup>163</sup> Ulrich H. J. Körtner, 'Calvinism and Capitalism' in Martin Ernst Hirzel and Martin Sallmann (eds), *John Calvin's impact on Church and Society, 1509-2009*, Grand Rapids, Michigan: Wm.B. Eerdmans, 2009, p. 168.

<sup>164</sup> Simon Schama, *The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age*, New York, Random House, 1987, p. 298.

<sup>165</sup> Kahr, 1993, pp. 9-10.

<sup>166</sup> Westermann, 2001, p. 31.

society.<sup>167</sup> Amongst the increasingly opulent Dutch Republic during the seventeenth century, a complex view of wealth that relished in luxury, on the one hand, and fear of public displays of extravagance as well as the loss of prosperity, on the other, influenced the expression of moral inflections embedded in otherwise realistic genre paintings.<sup>168</sup> The Netherlandish proverb simply stated ‘in luxury, look out’ was in reference to the precarious nature of fortune.<sup>169</sup> This proverb developed as a popular theme in seventeenth-century Dutch painting.<sup>170</sup>

The Catholic Southern Netherlands was not unlike its Calvinist counterpart whose own Golden Age in the preceding century held an influence over the seventeenth where the sin of Greed and excessive luxury became a pervasive theme, influenced by the Counter Reformation.<sup>171</sup> Many of the middle-classes strove to imitate the nobility,<sup>172</sup> where applications increased for nobility during the seventeenth century.<sup>173</sup> This desire for increased social status and prestige also supported the art market, where art patronage was a mark of higher breeding. While the middle-classes endeavoured to adorn their homes with paintings, those who could not afford the

---

<sup>167</sup> North, 1997, p. 47.

<sup>168</sup> Schama, 1987, p. 295; Simon Schama, ‘The Unruly Realm: Appetite and Restraint in Seventeenth Century Holland’, *Daedalus*, 108, no. 3, 1979, pp. 120-1; Westermann, 2005, p. 118.

<sup>169</sup> Westermann, 2005, p. 14.

<sup>170</sup> H. Perry Chapman, ‘Jan Steen, Playing in his own Paintings’ in *Jan Steen: Painter and Storyteller*, exh. cat., Guido M. C. Jansen (ed.), Washington: National Gallery of Art; Amsterdam: Rijkmuseum; New Haven: Yale University Press, 1996, p. 19. See for example Jan Steen, *Easy Come, Easy Go* (1661, 79 x 104cm, Rotterdam, Museum Boijmans Van Beuningen), illustrated in Chapman, 1996, p. 147. Also titled *The Prodigal Son*, this painting provides an allegory of fortune and misfortune by illustrating excessive luxury and consumption.

<sup>171</sup> Johan Verberckmoes, ‘The Comic and the Counter Reformation in Spanish Netherlands’ in Jan Bremmer and Herman Roodenburg (eds), *A Cultural History of Humour*, Cambridge: Polity Press, 1997, pp. 76-77.

<sup>172</sup> Walter S. Gibson, *Pieter Bruegel and the Art of Laughter*, Berkeley, University of California Press, 2006, p. 80; Haute, 1999, p. 19.

<sup>173</sup> Davidson, 1979, pp. 29-30.

original could buy cheaper imitations.<sup>174</sup> The general concern for higher social status was also expressed by artists, whose livelihoods depended on the tastes and desires of those from comfortable middle-class backgrounds. Seventeenth-century Netherlandish artists established their own guild, the Guild of St. Luke, separate from artisans,<sup>175</sup> joining literary groups and applying for nobility, further setting themselves apart from the peasantry classes, the 'boers'.<sup>176</sup>

The Dutch Republic of the seventeenth century was known for its tolerance of multiple religious beliefs and practices, however, it was also seen as a sign of moral degeneracy amongst Dutch society at the time.<sup>177</sup> Considering the large percentage of nonconformity in the population and the continuing war for independence with Spain, it was likely that domestic order was more important than religious purity which may have caused more social divisions. Most of the population remained Catholic well into the seventeenth century. It was not until late in the century that Protestants made up a bare majority in the population in line with the official Church. However, the progress of Protestantism varied widely between provinces.<sup>178</sup> Meanwhile, the Spanish Netherlands was far from tolerant of religious diversity.<sup>179</sup> As already mentioned, the Spanish rejected religious pluralism and used force to attempt to stamp out Protestantism which resulted in hundreds fleeing to the north.<sup>180</sup> The Spanish

---

<sup>174</sup> Haute, 1999, p. 19.

<sup>175</sup> Westermann, 2005, p. 28.

<sup>176</sup> Alpers, 1983, p. 113; Davidson, 1979, pp. 29-30. David Teniers the Younger applied for nobility whose application was accepted. Other Antwerp artists during the seventeenth century who gained nobility include Peter Paul Rubens and Anthony van Dyck. Davidson, 1979, p. 5. Teniers was also a member of the *Violieren* Chamber of Rhetoric

<sup>177</sup> Price, 1998, p. 86.

<sup>178</sup> *Ibid.*, p. 90.

<sup>179</sup> Bernard A. Cook, *Belgium: A History*, New York: Peter Lang, 2002, p. 36.

<sup>180</sup> Corbett, 2004a, p. 101; C. Bruneel, 'The Spanish and Austrian Netherlands, 1585-1780' in J. C. H. Blom and E. Lamberts (eds), *History of the Low Countries*, trans. James C. Kennedy, New York: Berghahn Books, 2006, p. 237



sought to re-Catholicise the southern provinces which successfully led to Antwerp becoming a centre for the Counter-Reformation.<sup>181</sup>

Alchemy was resisted by both the Catholic and Protestant Church. If extraordinary phenomena held a natural explanation then the miracles of Christ could be explained by nature or a magician, challenging the Church's very existence.<sup>182</sup> Alchemists were frequently accused of possessing heretical ideas.<sup>183</sup> Saint Augustine (354-430) had argued that since God created everything, including minerals and stones, then it was impious to attempt to 'perfect' base metals into gold or silver.<sup>184</sup> Furthermore, many of the Hermetic teachings conflicted with Christian doctrine and the Church's dominance over the supernatural.<sup>185</sup> For example, as previously mentioned, Hermetism taught spiritual enlightenment to reclaim humanities place beside God. The Christian tradition on the other hand emphasised humanities place below God, whose soul was human and having been created from the dust of the earth. It was Christianity's purpose to reconcile with God through faith, rather than to be on par with God.<sup>186</sup> Despite the northern Netherlands tolerance of diversity, the Reformed Church was not. Protestant reformers dealt with the threat by declaring magic as false and inefficacious as the true God could not be manipulated into revealing his secrets of nature.<sup>187</sup> They attributed marvellous events to the work of demons and proclaimed that magicians were agents in disguise.<sup>188</sup> Alchemists in the Spanish Netherlands became subject to the Spanish Inquisition. Follower of Paracelsusian alchemy who

---

<sup>181</sup> Corbett, 2004a, p. 101.

<sup>182</sup> Easlea, 1980, p. 109.

<sup>183</sup> Elmer, 2004, p. 115.

<sup>184</sup> Newman, 2004, p. 147.

<sup>185</sup> Thomas, 1971, p. 25.

<sup>186</sup> Fanning, 2009, pp. 5-6.

<sup>187</sup> Tambiah, 1990, pp. 19-20.

<sup>188</sup> Easlea, 1980, p. 96.

discovered the existence of multiple gasses and coined the term ‘gas’,<sup>189</sup> Flemish Jan Baptista van Helmont (1577-1644) came under virtual house arrest for much of two decades for his writings which brought him accusations of dabbling in black magic.<sup>190</sup> As with most aspects of alchemy, nothing was straightforward, for Martin Luther (1483-1546) himself had spoken in acceptance of alchemy.<sup>191</sup> Despite the official stance against alchemy from the Church, early modern European alchemical practitioners were often Christian. For the genuine Rosicrucian, for example, religion was always the most important aspect.<sup>192</sup>

This chapter serves to clarify as well as stress the complexity of alchemy and its historical context in which it derived. There is much complexity surrounding alchemy than many authors may lead one to believe. The modes of practicing alchemy have been as diverse as the alchemists themselves who derived from all walks of life where its practice and place within history continues to be debated today. The context in which representations of seventeenth-century alchemists in Netherlandish genre art equally derive from a complex society all in which will be reflected in the works of art to be explored in the subsequent chapters.

---

<sup>189</sup> Butterfield, 1965, p. 94

<sup>190</sup> Elmer, 2004, p. 121.

<sup>191</sup> ‘The science of alchymy I like very well, and, indeed, ‘tis the philosophy of the ancients. I like it not only for the profits it brings in melting metals, in decocting, preparing, extracting, and distilling herbs, roots; I like it also for the sake of the allegory and secret signification, which is exceedingly fine.’ Martin Luther, *The Table Talk of Martin Luther*, (1566), trans. ed. William Hazlitt, London: H.G. Bohn, 1857, p. 326.

<sup>192</sup> Yates, 1972, p. 222.

### 3 FOOLS AND CHARLATANS

Within the rich tradition and extensive pictorial record of seventeenth-century representations of the alchemist, the 'puffer' alchemist who was merely interested in the mechanical aspects of transmuting metal was a subject of mockery and often portrayed fanning the flames of the hearth with bellows or carrying out other rudimentary 'laboratory' tasks. It is probably for this reason that alchemists as fools and charlatans or 'puffers' were commonly depicted in Netherlandish 'low-life' genre paintings along with drunks, smokers, gamblers, quack doctors and barber-surgeons taken from everyday peasant life in this period.<sup>193</sup> Many of these satirical images of a didactic or moralising nature were also constructed within the tradition of seventeenth-century emblem books where didactic verse was accompanied by illustrations.<sup>194</sup> In this context, the image and identity of the alchemist was inspired by stereotypes of peasants that had traditionally been the subject of mockery in Netherlandish literature and plays.<sup>195</sup> Netherlandish artists created caricatures who exhibited coarsely comical behaviours that would not have been considered proper by the upper classes, and as such, were inflected with powerful moral connotations.<sup>196</sup>

A key artist who influenced the development of this particular form of low-life genre painting was Adriaen Brouwer (1605/6-1638). The Flemish artist was one of the most

---

<sup>193</sup> Peter C. Sutton, *Dutch & Flemish Painting: The Collection of Wilem Baron van Dedem*, London, Frances Lincoln Ltd, 2002, pp. 47.

<sup>194</sup> Franits, 2004, p. 5. See for example Jacob Cats and Robert Farley, *Moral Emblems: With Aphorisms, Adages, and Proverbs, of all Ages and Nations* (1577-1660), New York: D. Appleton and Co., 1860.

<sup>195</sup> Gibson, 2006, p. 77; Westermann, 2005, p. 81.

<sup>196</sup> Gibson, 2006, p. 149.

popular genre painters of the early seventeenth century.<sup>197</sup> Brouwer worked in Haarlem (c. 1626-1632) and Antwerp (c.1632-1638), which were important cultural centres and major economic hubs where artists, such as David Teniers the Younger, were connected to and produced large numbers of satirical and didactic representations of alchemists.<sup>198</sup> Although Antwerp no longer served as the dominant economic centre in Europe in the seventeenth century as it did during the sixteenth, it still remained relatively prosperous.<sup>199</sup> Antwerp served as the financial centre for the Southern Netherlands. It also served as an exchange market between the Protestant north and Catholic south of Europe and trading network with the Mediterranean.<sup>200</sup>

Paradoxically, amidst the prosperity of the Netherlands, satirical images of alchemists accompanied by a neglected wife and children with empty moneybags, as originally represented in the sixteenth-century print after Pieter Bruegel, became a common motif in seventeenth-century Netherlandish genre painting. The implied admonition against poverty and chaos was a common theme in both comical and didactic representations of the alchemist that was unique to this region and period. Adriaen van de Venne's (1589-1662), monochrome painting *Rijcke-armoede* ('Rich Poverty') (fig. 2), closely resembles Bruegel's print. The decay and disorder of the interior signifies the moral corrosion of the greed and foolishness that led the alchemist to attempt a short-cut to achieve wealth and then fail in his duties as a husband and father.<sup>201</sup> The wife reveals the family's last coin in her outstretched hand, with despair on her face. Her child tugs at her dress with one hand and cusps the other

---

<sup>197</sup> Corbett, 2004a, p. 69; Haute, 1999, p. 65.

<sup>198</sup> Corbett, 2004a, p. 69.

<sup>199</sup> Deursen, 1999 pp. 12-3.

<sup>200</sup> Cook, 2002, p. 35.

<sup>201</sup> Principe and DeWitt, 2002, p. 12.

in a gesture of need. The alchemist ignores the plight of his family and works at the hearth, placing an unseen object inside the crucible. Once again the alchemist is represented as failing to care for his family. The enormous distilling apparatus behind the wife is also taken directly from Breugel's representation. The strong didactic message of poverty is further expressed by the weathered boards on the chimney, tattered clothes of the alchemist and makeshift table made from barrels and a plank of wood. Like Bruegel, paper is pinned to the chimney reading 'Rijcke-Armoede'. This suggests that money has gone into the enormous wealth of alchemical apparatus and experimentation rather than feeding and clothing the family.<sup>202</sup> Like Breugel's image of the alchemist, this representation was unlikely to have been designed to elicit sympathy from its audience as it was the alchemist's desire for a 'short-cut' to wealth that paradoxically led to his family's precarious predicament. In the words of van de Venne, 'for folly to be recognized [it needs to be illustrated] in order to shun it in the world'.<sup>203</sup> This moralising message and emotive imagery would have struck a chord with a Dutch audience as the strength of the nuclear family became central to the identity of the Dutch Republic.<sup>204</sup>

Adriaen van Ostade's (1610-1685) *Alchemist* (fig. 3), is another painting that was influenced by Breugel's representation of the alchemist. The neglected family, general disorder and moral message are again reminiscent of the satire of the Flemish artist. The family are seen in the background of a rustic peasant home. A boy eats a piece of

---

<sup>202</sup> Ibid, p. 19.

<sup>203</sup> Adriaen van de Venne cited in Eddy de Jongh, 'Jan Steen, So Near and Yet So Far' in Guido M. C. Jansen (ed.), *Jan Steen: Painter and Storyteller*, exh. cat., Washington: National Gallery of Art; Amsterdam: Rijksmuseum; New Haven: Yale University Press, 1996, p. 44.

<sup>204</sup> H. Perry Chapman, 'Home and the Display of Privacy' in Mariët Westermann (ed.), *Art and Home: Dutch Interiors in the Age of Rembrandt*, exh. cat., Denver, Colo: Denver Art Museum; Newark, N.J.: Newark Museum; Zwolle, Netherlands: Waanders Publishers, 2001, p. 143.

bread, while a girl is thought to be looking inside a cupboard. The alchemist in this painting has also converted a rustic kitchen into a cluttered laboratory with all manner of household items randomly placed around the floor, on tables and shelves, and attached to the walls. On the piece of paper underneath the stool beside the alchemist reads the moralising message *oleum et operam perdis* ('to lose one's time and trouble'), which captures the all-encompassing idea of alchemy as an obsessive pursuit.<sup>205</sup>

At a time when cleanliness held great importance within the Dutch Republic,<sup>206</sup> the transformation of the household into a disordered and chaotic laboratory would have been viewed negatively.<sup>207</sup> Dirtiness was akin to immorality.<sup>208</sup> Moralisation of the domestic sphere was based on an enduring Netherlandish cultural tradition, but exacerbated by Calvinist moralists who viewed Dutch nationhood as contingent on discipline and uniformity.<sup>209</sup> To be physically clean was believed to translate into inner purity.<sup>210</sup> Domestic virtues such as frugality, sobriety and humility were believed to subdue sins such as lust, slothfulness and vain luxury.<sup>211</sup> Sparsely decorated spotless interiors of middle-class households with wives and maids cleaning signified domestic virtue as well as proper breeding and upper-middle-class belonging, as were typically portrayed by Delft painters such as Pieter de Hooch

---

<sup>205</sup> Corbett, 2006, p. 256.

<sup>206</sup> Schama, 1987, p. 375; Schama, 1979, p. 103.

<sup>207</sup> Corbett, 2006, p. 254.

<sup>208</sup> Schama, 1987, p. 378. To be tidy was thought to be a civic duty in the fight against infectious diseases and disease carrying vermin. To be untidy was believed to expose the entire population to infection and tantamount to social treason.

<sup>209</sup> *Ibid.*, p. 382.

<sup>210</sup> Willem Frijhoff and Marijke Spies, *Dutch Culture in a European Perspective: 1650: Hard-Won Unity*, Hampshire; New York: Palgrave Macmillan Ltd; Royal Van Gorcum: Assen, 2004, p. 508.

<sup>211</sup> Schama, 1987, p. 388.

(1629-1684) and Johannes Vermeer (1632-1675).<sup>212</sup> The wife who sits in the background wiping her baby's bottom in van Ostade's representation of the alchemist alternatively alludes to the perception of decay and uncleanness of the satirical scene.<sup>213</sup> It also refers to Bruegel's written inclusion of *alghe mist*, meaning 'all is crap'. A mother cleaning her child's bottom was a common motif in Netherlandish art, which symbolised that not all was well.<sup>214</sup> The chaos and the dirtiness of the scene were not entirely unique to van Ostade's representation of the alchemist as he also painted peasant interiors in a similar vein,<sup>215</sup> placing them squarely in the low-life genre. However, the additional moral signifiers of the neglected family and chaotic mess of the carelessly placed laboratory equipment in replacement of kitchen utensils makes a scathing attack against the idea of the 'puffer' alchemist in particular.

Although Cornelis Bega (1620-1664) was a student of van Ostade,<sup>216</sup> he represented the alchemist in a less satirical fashion, yet maintained a didactic message. Bega also stressed disorder and poverty in his representation of the alchemist (fig. 4). The alchemist is depicted measuring out a red substance on scales while surrounded by scattered broken equipment. It is likely that he is about to place the substance in the crucible beside him which is atop of a pot filled with charcoal. His own appearance reflects the disorder of the interior with his socks pulled down exposing his bare legs. No sufficient laboratory equipment seems apparent amongst the rubble. What does exist is fragmentary and rudimentary. A sketch of a sophisticated distilling apparatus

---

<sup>212</sup> Westermann, 2001, pp. 32, 124. See for example Pieter de Hooch, *Mother and Child by a Window with a Woman Sweeping* (c. 1665-68, oil on canvas, 52 x 56cm, Bedfordshire, Luton Hoo, The Wernher Collection), illustrated in Schama, 1987, p. 395.

<sup>213</sup> Westermann, 2005, p. 56.

<sup>214</sup> Schama, 1987, p. 481. See also for example Gerard Dou, *The Quack* (1652, oil on panel, 112 x 83 cm, Rotterdam, Boymans-van Beuningen Museum), illustrated in Schama, 1987, p. 482.

<sup>215</sup> See for example Adriaen van Ostade, *Peasants in an Inn* (1662, oil on panel, 24 x 39cm, The Hague, Royal Cabinet of Paintings Mauritshuis), illustrated in Brown, 1999, p. 6.

<sup>216</sup> Principe and DeWitt, 2002, p. 24.

with a furnace burner alludes to his future aspirations. The disorder of the scene suggests his obsessive single-mindedness and desire to give up on everything in his quest for the single goal of alchemical transmutation of base metal into gold, which has paradoxically led him to poverty and ruin. Principe and Dewitt provide a fresh perspective to this painting. They interpret the substance as representing the Philosopher's Stone, which was often described as red in alchemical literature.<sup>217</sup> Their theory is further supported by the presence of a wooden plunger in front of the pot of coals that was designed for creating a shallow dish specifically for testing and refining precious metals. The solitary figure of the alchemist was also thought to be proof that he was handling the Philosopher's Stone because this process required privacy for the highly sought after substance. DeWitt and Principe also suggest that Bega is emphasising the alchemist's self-sufficiency, which they describe as having been seen as a laudable trait in the seventeenth century, as the alchemist can support himself by his own hand rather than entering risky ventures of merchants. The shabby appearance of the alchemist presents him as a humble character in contrast to the increasing opulent seventeenth-century Dutch middle-class society. DeWitt and Principe further cite stories of shabbily dressed travelling alchemists who possessed hidden riches to support their theory in order to not call attention to possessing the secret to alchemy.<sup>218</sup>

However, it is difficult to believe that Bega would choose to represent the climactic moment of transmutation with the most sought after Philosopher's Stone in a chaotic

---

<sup>217</sup> DeWitt and Principe, 2006, p. 231. Also see Boyle, 1911, p. 90; Bacon, 2004, p. 14; Taylor, 1974, pp. 84, 175. Taylor cites that Jan Baptista van Helmont described the Philosopher's Stone as 'saffron' in colour.

<sup>218</sup> DeWitt and Principe, 2006, pp. 231-33.



interior with dilapidated and rudimentary equipment if his intent was not to satirise this questionable pursuit. It is also difficult to believe that much worth could come out of such a scenario. Since Bega often depicted satirical representations of peasants,<sup>219</sup> it is difficult to try to place a positive spin on his representation of this type of peasant alchemist. Furthermore, if this is the representation of self-sufficiency, he does not appear to be very successful. As previously mentioned, the implied dirtiness and chaos of the scene would have been viewed negatively by the primarily middle-class Dutch audience. If the general representation of peasants is taken into consideration, their humble representations often utilised caricature and satirical stereotyping. It is therefore unlikely that they were represented by the artist to be seen as laudable characters as suggested by DeWitt and Principe. The reddish substance that the alchemist is about to measure is thus likely to resemble the main ingredient in attempting to create the Philosopher's Stone, cinnabar, which is a red coloured mercury sulphide.<sup>220</sup>

David Teniers the Younger was highly influential in inspiring the representation of the alchemist. It has been estimated that the representation of the alchemist was featured in more than 350 works of his art.<sup>221</sup> Many artists imitated his style and iconography and his signature emblem of a hanging fish or reptile from the ceiling of the 'laboratory' was adopted by many artists of the period.<sup>222</sup> Their motivation was economically driven as a result of Teniers success, who became one of the most

---

<sup>219</sup> See for example Barry Pearce, *Cornelis Bega Etchings: The Art Gallery of South Australia, 23 September – 23 October 1977*, Adelaide: Art Gallery of South Australia, 1977.

<sup>220</sup> John Read, *From Alchemy to Chemistry*, Mineola N.Y.: Courier Dover Publications, 1995, p. 17.

<sup>221</sup> Principe and DeWitt, 2002, p. 13.

<sup>222</sup> Roger Peyre, *David Teniers: Biographie Critique; Illustrée de vingt-quatre reproductions hors texte*, Henri Laurens, Paris, c.1910, p. 112. See for example Gerard Dou, *At the Dentist's* (c.1650s, 41.9 x 32cm, oil on canvas, Wilwaukee, Wisconsin, Milwaukee School of Engineering), illustrated in Türk, 2005, p. 50.

popular artists of genre scenes in seventeenth-century Antwerp.<sup>223</sup> Teniers has also often been believed to have portrayed objective and serious representations of alchemists during the seventeenth century, particularly for his depictions of a range of alchemical apparatus essential to the practice as well as for his painted self-portrait late in his life as a scholarly alchemist in traditional fur-lined robe and cap.<sup>224</sup> This has even led to speculation as to whether he was a practicing alchemist himself.<sup>225</sup> In *The Alchemist* of 1649 (fig. 5), Teniers represents the alchemist in a relatively respectable and picturesque interior. The scene is seemingly absent of the obvious signs of chaos and associated didactic message discernible in the overtly satirical works of Bruegel. The interior reveals the beginnings of a sophisticated laboratory with double hearths, orderly groups of various types of glass and ceramic vessels and books. There is no woman conducting domestic duties or untethered children to suggest that this is a private homely residence. The mature alchemist sports a long white beard and is cleanly dressed. The purse hanging from his waist appears full despite his diligence at puffing the flames with the bellows, which as previously mentioned commonly held negative connotations concerned with the purely operative aspects to alchemy in relation to the impoverished peasant alchemist. There are no other overt signs of physical decay within the interior such as broken pots or weathered and cracked infrastructure to suggest poverty. However, an owl gazes out to the viewer which has perched itself upon a crude wooden divider on the far right of the composition which was frequently utilised to frame depictions of peasant interiors

---

<sup>223</sup> Davidson, 1979, pp. 59-60.

<sup>224</sup> See for example Davidson, 1979, p. 40; Jane P. Davidson, "I am the Poison Dripping Dragon: Iguanas and their Symbolism in the Alchemical and Occult Paintings of David Teniers the Younger," *AMBIX*, 34, 1987, p. 62; Read, 1947, p. 15; Holmyard, 1967-78, p. 749; DeWitt and Principe, 2006, pp. 227, 228. DeWitt and Principe describe alchemical representations by Teniers as 'morally neutral'.

<sup>225</sup> Davidson, 1987, pp. 72, 77.

and were often used as an opportunity to depict still-life.<sup>226</sup> The owl was a symbol for folly in seventeenth-century Netherlandish art,<sup>227</sup> which referred to a Netherlandish proverb ‘What use are candle and glasses, if the owl does not want to see’.<sup>228</sup> It makes a subtle satirical comment in regards to the alchemist who cannot or will not see the foolishness of his ways.

The representation of the alchemist by Teniers closely resembles those of his dimly lit tavern interiors. A common motif in his paintings is a portrait sketched on a piece of paper pinned to a wall, which represents an odd looking character. These pinned sketches resemble the frequently depicted pinned moral message to chimneys of alchemist’s interiors, which were used to clarify the paintings message.<sup>229</sup> In Teniers’ 1649 representation of the alchemist, the portrait returns, pinned to the wooden divider below the owl in which it has perched itself on top of. In some instances an owl could very well just be an owl because they were commonly kept as pets during this period.<sup>230</sup> Owls were also depicted tied up to a perch in seventeenth-century genre paintings, however, they were usually featured in peasant interiors where their existence as a symbol of folly can still be read.<sup>231</sup> Since the owl is not depicted tied to a post it can be safe to assume that it was not kept as a pet where it likely flew into the laboratory from its open window. If we look in contrast to Teniers’ *Tavern Scene*,

---

<sup>226</sup> See for example David Ryckaert III, *Drinking Peasants in a Barn Interior* (1638, oil on panel, 50.5 x 80.5cm, Dresden, Gemalgerie Alte Meister), illustrated in Haute, 1999, p. 285.

<sup>227</sup> Corbett, 2006, p. 251.

<sup>228</sup> Kenneth M. Craig, ‘Proverb’s Progress: “A Fool Looking through His Fingers”’ in C. C. Barfoot and Richard Todd (eds), *The Great Emporium: The Low Countries as a Cultural Crossroads in the Renaissance and the Eighteenth Century*, Amsterdam; Atlanta: Rodopi, 1992, p. 120.

<sup>229</sup> Westermann, 2005, p. 60.

<sup>230</sup> Corbett, 2004a, p. 77.

<sup>231</sup> See for example David Ryckaert III, *The Pipe Smoker*, (1640, oil on panel, 52 x 65.7cm, location unknown), illustrated in Haute, 1999, p. 296. In a tavern interior a peasant smokes in the foreground while an amorous couple in the background hold each other close with an audience. An owl tied to a post, while suggesting that it is kept as a pet, further alludes to the folly of their behaviour.

(fig. 6) a sketch of an owl, reminiscent of the sketches of peasants in Teniers paintings, is pinned to the wall of the tavern interior. The sketch with the owl includes a pair of spectacles and a candle beside it which directly references the proverb symbolising someone who does not wish to see the error of their ways (fig. 7).<sup>232</sup> The sketch of the owl is pinned to the wall above a group of men playing cards, drinking and smoking, with other men in far corners dozing off to sleep. There is also a curious figure directly beneath the sketch with his back turned to the group playing cards. His legs are parted in such a way to indicate that he is urinating in the corner. While the sketch of the owl directly refers to the proverb that the tavern patrons are unable to see the errors of their ways, where moralists during the Counter Reformation considered playing cards, drinking and smoking as sinful and idle pursuits,<sup>233</sup> the portrait of the man below the owl in the alchemist's interior closely resembles a typical figure in Teniers' genre paintings of taverns. The alchemist's assistants in the background also resemble the huddled men playing cards in the tavern, as if their idle foolishness is one and the same. Teniers' tavern and alchemical interiors include the replication of many similar objects. Almost identical braziers are also depicted in a similar location in the two paintings. The tavern similarly displays glass bottles on shelves and niches. Although much of these motifs are common to Teniers' low-life genre paintings and arguably allows the artist to show off his artistic virtuosity by creating detailed still-life,<sup>234</sup> they nonetheless connect the alchemist's laboratory with his other representations of peasant interiors. Furthermore, the sketched portrait of the peasant is placed beside a horse skull, which has been suggested to symbolise the sin

---

<sup>232</sup> Craig, 1992, p. 120. Netherlandish proverbs also associate the foolish actions of drunks and sinful connotations to excessive drinking with the proverb 'as drunk as an owl'. Also see Davidson, 1979, p. 41.

<sup>233</sup> Sarah Carr-Gomm, *The Hutchinson Dictionary of Symbols in Art*, Oxford: Helicon, 1995, pp. 49-50; Haute, 1999, p. 25; Verberckmoes, 1997, pp. 76-77. In the Southern Netherlands, when the Spanish sought to reestablish themselves after the Calvinists had left, visits to taverns was restricted.

<sup>234</sup> Hill, 1975, p. 105.

of pride.<sup>235</sup> This would then imply the perceived arrogance of the alchemist who attempts to control and manipulate nature,<sup>236</sup> as nothing more than a foolish peasant wasting his time on idle pursuits. This is further supported by another proverb that associates the owl, which sits above the collection of symbolic motifs, with a false sense of pride which states, ‘everyone believes his owl is a falcon’.<sup>237</sup>

In addition, Teniers often depicted hanging fish or reptiles hanging from alchemical ceilings, although their precise symbolic or practical significance is unclear. It has been suggested that the hanging fish could represent the element of water. However, this does not concur with the surroundings of the burning flames of the hearth and furnaces, particularly since the element of fire was the primary symbol and essential requirement for the alchemist.<sup>238</sup> Sometimes the elements fire and water were represented by an alchemist balancing the two opposing elements on a set of scales in alchemical treatises,<sup>239</sup> however, in genre representations of alchemists, the artists do not appear to adopt alchemical symbolism in their representations. If the lizards hung from Teniers ceilings were intended to represent a salamander it could be symbolic of the belief that they could not be harmed by fire.<sup>240</sup> The fact that different fish and reptile species were depicted hanging in Teniers’ alchemical interiors further complicates the idea that they were used as a symbol. The most seemingly straightforward explanation for the hanging fish or reptiles are that they were exotic

---

<sup>235</sup> Lothar and Sigrid Dittrich, ‘Der Pferdeschädel als symbol in der Niederländischen malerei des 17. Jahrhunderts,’ *Niederdeutsche Beiträge zur Kunstgeschichte*, 34, 1995, pp. 109-110.

<sup>236</sup> Principe and DeWitt, 2002, p. 6.

<sup>237</sup> Davidson, 1979, p. 41.

<sup>238</sup> Corbett, 2004a, p. 78.

<sup>239</sup> Read, 1947, pp. 58-9.

<sup>240</sup> Brinkman, 1982, p. 48; Robert Boyle, *A Defence of Nature and Revealed Religion: Being An Abridgement of the Sermons Preached at the Lecture founded by The Hon.ble Robert Boyle, Esq.*, vol. II, Brock, 1737, p. 424.

creatures depicted as an expression of natural curiosity.<sup>241</sup> Collections of exotic fauna became a keen interest during the seventeenth century amidst exploration of the New World.<sup>242</sup> These amassed collections of natural specimens and cultural artefacts were usually displayed in ‘cabinets of curiosities’. This term was later connected to larger collections that took up entire rooms. However, since their objective was to amass collections, it is curious to see only one specimen displayed in the alchemical laboratory.<sup>243</sup> Furthermore, the collection of foreign species was a pastime of the aristocracy which Teniers’ ‘puffers’ are clearly not.<sup>244</sup> Even if the hanging fish or reptiles were representative of natural curiosity and collecting, it still does not rule out a double meaning as they may have conveyed a symbolic interpretation as was the case with the owls, although there is little doubt that their assembly and display were inspired by such collections.

Moreover, the motif of the hanging animal was not unique to the representation of the alchemist. They were also frequently featured in scenes depicting the medical professions of barber-surgeons, dentists and physicians who also held an interest in alchemy. The iconography associated with members of the medical professions was quite similar to those of representations of alchemists and many of the artists who depicted the alchemist also painted within this genre.<sup>245</sup> Sometimes assistants were

---

<sup>241</sup> Corbett, 2006, p. 252; Davidson, 1987, p. 62.

<sup>242</sup> Davdison, 1987, p. 63.

<sup>243</sup> Michael McKeon, *The Secret History of Domesticity: Public, Private and the Division of Knowledge*, Baltimore: Johns Hopkins University Press, 2006, p. 218. These private collections formed the basis of modern natural museums. For example see The Cabinet of Francesco Calzolari (originally published in *Museum Calceolarium*, Verona, 1622), illustrated in Patrick Mauries, *Cabinets of Curiosities*, London: Thames and Hudson, 2002, pp. 17-8.

<sup>244</sup> Tony Bennett, *The Birth of the Museum: History, Theory, Politics*, London: Routledge, 1995, p. 59.

<sup>245</sup> Schummer and Spector, 2007, p. 11. For example David Teniers the Younger, Adriaen van Ostade, David Ryckaert III, Thomas Wijck, Jan Steen, Frans van Mieris the Elder and Jacob van Toorenvliet all represented uroscopy.

even depicted fanning flames with bellows as many alchemists were represented along with distillation apparatus.<sup>246</sup> The main discernable difference of a representation between the alchemist and a member of the medical profession was the depiction of their attendance to patients. Physicians were often depicted inspecting a vial of clear yellow liquid that most likely represented the practice of uroscopy or diagnosis through urine analysis,<sup>247</sup> while barber-surgeons and dentists were represented conducting minor procedures. In a painting by Teniers entitled *The Surgeon*, (fig. 18) two patients are depicted receiving minor procedures in an interior closely resembling an alchemical laboratory. A similar fish is hung from the ceiling as in the alchemical representation just explored by Teniers. Other common motifs include the horse skull and assortment of vials and pots. The representation of a monkey chained to a ball while eating an apple refers to man giving into vanity and bound to earthly existence as monkeys were regarded as fallen men in the Garden of Eden.<sup>248</sup> The large ball that hangs from the ceiling in the middle of the composition could thus allude to the idea that all in the interior is a slave to their vanity and thus their spirit is shackled to their flesh and ungodly presumption of man's status by delving into the realm of God by attempting to perfect and extend life.<sup>249</sup> However, Teniers also depicted fish hanging from the ceilings of tavern interiors,<sup>250</sup> which is perhaps another symbolic link between the tavern and the laboratory and further connects these images of physicians to the low-life genre. As the mechanical pursuits

---

<sup>246</sup> See for example Gerard Thomas, *Consulting a Doctor*, (c.1700, oil on canvas, 66.5 x 83.8cm, Milwaukee, Milwaukee School of Engineering), illustrated in Türk, 2005, p. 24; follower of Gerard Dou, *At the Dentist's* (oil on canvas, 41.9 x 32cm, Milwaukee, Milwaukee School of Engineering) illustrated in Türk, 2005, p. 50.

<sup>247</sup> *Ibid.*, p. 18.

<sup>248</sup> Carr-Gomm, 1995, p. 25; Ptolemy Tompkins, *The Monkey in Art*, New York: Scala Books, 1994, pp. 31, 33, 40.

<sup>249</sup> Tompkins, 1994, p. 36.

<sup>250</sup> See for example David Teniers the Younger, *The Tavern* (1610-1690, oil on wood, 55.7 x 73.7cm, Allemagne, Munich, Bayerische Staatsgemaldehymmlungen Alte), illustrated in Adolf Rosenberg, *Teniers der Jungere*, Künstler-monographien 8, Bielefeld, Velhagen and Klasing, 1895, p. 14.

of the ‘puffer’ alchemist were held in poor regard so too was the practical application of medicine before it became a university discipline as it was regarded as a mechanical craft.<sup>251</sup> Images of physicians, particularly of those conducting uroscopy, became associated with quackery and were mocked for their powers in contrast to God. Despite criticisms, the practitioners flourished and were well paid, which resulted in imagery that mocked their greed and the foolishness of their patients.<sup>252</sup> The common iconographical elements therefore connected the quackery of medical physicians with alchemists in seventeenth-century Netherlandish art. In this way, the hanging ball beside the fish in this composition provides evidence to suggest that the hanging animals in Teniers’ paintings were intended to convey a moralising symbolic message.

The recurring motifs in Teniers’ representations of alchemists are also found in his numerous highly moralising paintings depicting witches and on the traditional religious theme of *The Temptations of St. Anthony* (fig. 27) (fig. 29). Both of these subjects are represented with numerous demons. These demons known as grotesques were often represented as possessing different animal parts.<sup>253</sup> What connects these subjects with the representation of the alchemist are his signature use of hanging animal specimens which often do not explicitly correlate to an identifiable species and horse skulls. When the horse skull motif manifests itself in his representations of St. Anthony which constitutes a large proportion of his work, and of witches’,<sup>254</sup> it is

---

<sup>251</sup> Schummer and Spector, 2007, p. 5; Türk, 2005, pp. 25, 32. University scholars of medicine left the practical application to the barbar-surgeons and physicians, particularly in rural regions. Surgeons did not gain academic recognition until the eighteenth century.

<sup>252</sup> Schummer and Spector, 2007, pp. 8-9.

<sup>253</sup> Gibson, 2006, pp. 30-33.

<sup>254</sup> Davidson, 1979, p. 38. Between 100-200 paintings depicting *The Temptations of St. Anthony* are attributed to David Teniers the Younger.



used as a mask of a cloaked demon which is sometimes represented with a demon peasant riding it. This cloaked demon possibly makes a satirical reference to mythology surrounding demon horses sent to deceive humanity.<sup>255</sup> Teniers hanging fish in his alchemical interiors are reminiscent of the flying fish, ('Serras' or mythical flying fish)<sup>256</sup> represented in his depictions of *The Temptations of St. Anthony* (fig. 27) and of witches' (fig. 29) which are animals associated with the Devil.<sup>257</sup> Teniers appears to use these commonly used motifs to connect his subjects. This suggests that alchemy was closely related with demonology, which was something alchemists were accused of frequently.<sup>258</sup> Sometimes the two subjects of the witch and St. Anthony also include an owl amongst the demons to suggest folly.<sup>259</sup> However, the owl has also been associated with far more sinister attributes and has also been said to be associated with the Devil.<sup>260</sup> Several Netherlandish proverbs associate evil with the owl. These proverbs arise from its preference for the dark, such as 'this is a real nest of owls' which illustrates where evil may occur. It also can be symbolic of the seven deadly sins such as pride, envy and greed in which alchemists were also frequently accused of.<sup>261</sup> More interestingly, Teniers representations of *The Temptations of St. Anthony* include peasants and are represented as attempting to tempt St. Anthony into smoking and drinking as they were often represented in Teniers' tavern interiors.<sup>262</sup> It

---

<sup>255</sup> M. Oldfield Howey, *Horse in Magic and Myth*, Whitefish, M.T.: Kessinger Publishing, 2003, p. 35.

<sup>256</sup> Davidson, 1979, p. 44.

<sup>257</sup> *Ibid.*, p. 37.

<sup>258</sup> Elmer, 2004, pp. 114, 121. Paracelsus and Joan Baptista van Helmont were both accused of dabbling in black magic or in other words, demonology.

<sup>259</sup> See for example David Teniers the Younger, *The Temptations of St. Anthony* (c.1650, 54 x 76cm, oil on copper, Antwerp, Royal Museum of Fine Arts), illustrated in Davidson, 1979, p. 99; David Teniers the Younger, *Incantation scene* (1650, 36.8 x 50.8cm, oil on copper mounted on masonite, New York, New York Historical Society), illustrated in Davidson, 1979, p. 103.

<sup>260</sup> *Ibid.*, p. 38. Other animals associated with the Devil included frogs, crabs and bats.

<sup>261</sup> *Ibid.*, p. 41.

<sup>262</sup> See for example David Teniers the Younger, *The Temptations of St. Anthony* (c.1638-1642, medium unknown, 63 x 50cm, Paris, Louvre), illustrated in *Ibid.*, p. 93. St. Anthony is depicted being offered a glass by a peasant with demon claws; David Teniers the Younger, *The Temptations of St. Anthony* (c.1645, oil on oak, 26.4 x 36.6cm, Antwerp, Museum Meyer van den Bergh), illustrated in *Ibid.*, p. 95. St. Anthony is similarly depicted being offered a pipe by the demon peasant.

is still curious as to why Teniers represented the alchemist in a far more subtle and less satirical manner than these connected subjects. However, the common iconography appears significant in regards to the sheer repetitiveness as well as the fact that they stand in contrast to his alternative scenes.

In David Teniers the Younger's *Alchemist in his Workshop* (fig. 28) Teniers produces a similar variation of the representation of an alchemist with bellows in a laboratory who has been distracted by a mouse beside a knocked over basket of coals which has alarmed a nearby sleeping dog and has distracted the alchemist from his work. The alchemist's assistants are again depicted huddled together in the background but one holds up a vial in the traditional vein of uroscopy, thus quackery and fraud associated with the physician became exchangeable with representations of the alchemist.<sup>263</sup> What is most interesting about this composition is the large hanging lizard from the ceiling. This large beak snouted lizard provides a highly exotic specimen whose frilled spine resembles an iguana from the New World.<sup>264</sup> It is possible that this lizard is an attempt to represent an actual species, however, considering Teniers is often credited for his 'extremely accurate' depictions,<sup>265</sup> he appears to have fallen short in his accuracy in depicting the true likeness of the iguana. Teniers' biographer, Jane Davidson attempted to reconcile this by stating that his depictions of lizards indicate that he painted from specimens that had been stuffed.<sup>266</sup> However, in one of Teniers' representations of *The Temptations of St. Anthony* (fig. 27) which depicts

---

<sup>263</sup> Schummer and Spector, 2007, pp. 12-3.

<sup>264</sup> Davidson, 1987, p. 62; Westermann, 2005, p. 114. It is reasonable to believe that specimens were taken back from the Dutch colonies in Brazil.

<sup>265</sup> Davidson, 1987, p. 62.

<sup>266</sup> Ibid., p.72.

demons in the form of animals sent by the Devil to tempt the saint,<sup>267</sup> the same frilled spined lizard is depicted as one of the demonic animals sent to torment St. Anthony in the bottom centre of the composition. The use of a lizard to represent a demon could be due to the notion that reptiles were despised as they could inhabit earth, air and water, thus defying humanities belief in natural order.<sup>268</sup> This common iconography alludes to the connection between demonology and alchemy. The presence of a black cat amongst the pots in front of the hearth in Teniers' *Alchemist in his Workshop* about to pounce as this one looks as it shows interest in chasing the mouse, is a symbol for lurking trouble.<sup>269</sup> The black cat has also been associated with the Devil. Black cats chasing mice were used as symbols for the Devil who likewise captured souls.<sup>270</sup> Together they could serve as a warning of the believed connection between demonology and alchemy and supports the suggestion that the hanging animals in Teniers representations allude to demonology and that the threat of going to hell looms over the alchemist's head as they serve as messengers of Satan who take sinners away to hell.<sup>271</sup> If Davidson is correct that these lizards are intended to represent dragons which are referred to in alchemical treatises,<sup>272</sup> then it can only help to support this theory as dragons were also used as symbols for the Devil, who himself was described as such in the book of Revelation 20.2 of The New Testament.<sup>273</sup>

---

<sup>267</sup> Davidson, 1979, pp. 36-7. St. Anthony was the first hermit and founder of ascetic monasticism. Born in Egypt in 251 CE, he devoted his life to solitude and prayer and lived in tombs outside his village. After living in isolation for many years, he returned to the world to found monasteries and combat Arian heresy. It was believed that the Devil sent demons in the form of bulls, lions, dragons, wolves, adders, serpents and scorpions to torment St. Anthony.

<sup>268</sup> Corbett, 2004a, p. 79.

<sup>269</sup> Carr-Gomm, 1995, p. 51.

<sup>270</sup> Alva William Steffler, *Symbols of the Christian Faith*, Grand Rapids, Michigan: Wm.B. Eerdmans Publishing, 2002, p. 106.

<sup>271</sup> James Hall, *Illustrated Dictionary of Symbols in Eastern and Western Art*, London: John Murray, 1994, p. 118.

<sup>272</sup> Davidson, 1987, p. 76.

<sup>273</sup> Hall, 1994, p. 118.

What still remains unclear are why these animals, if symbolising demonic animals sent by the Devil, are depicted hanging from the ceiling of alchemical interiors. Netherlandish proverbs and plays referenced women who were so angry and strong-willed that they could tie up the Devil himself.<sup>274</sup> The subject of *Dulle Griet* ('Mad Meg') representing angry housewives who plunder hell for gold and silver vessels while tying up demons became a reoccurring subject in Netherlandish art including Bruegel, who was highly influential on Teniers' career.<sup>275</sup> The motif of a woman tying up a demon was depicted by Teniers. He represented a witch indicative of the magic circle inscribed on the floor by her witches' knife (athame) to keep the demons at bay while she ties an odd looking fish with a face resembling more that of a dog with a protruding tongue and spines along its body to a pillow (fig. 29).<sup>276</sup> The connection between these strung up animals appears to be significant, but the exact intended meaning by Teniers still remains elusive. Provided that some alchemists were connected with demonology, Teniers could be making reference to the perceived arrogance of alchemists who believe they could get the better of demons by practicing black magic. In contrast, it could even be represented as a talisman, by attributing magical properties to inanimate or living creatures to ward off evil.<sup>277</sup> The witch mentioned above could be in fact making a talisman out of the demon as indicated by the magic circle and symbols she has inscribed in the ground.<sup>278</sup> What appears to be clear from the connected iconography of Teniers' paintings is that the alchemist's behaviour is alluding to the practice of sinful behaviour as are his representations of

---

<sup>274</sup> Gibson, 2006, p. 130. In a famous play, *Mariken van Nijmegen*, an ill-tempered woman says that she is so angry she could tie up the Devil 'or bind him to a cushion as if he were a babe.'

<sup>275</sup> See for example Pieter Bruegel the Elder, *Dulle Griet* (c.1562, 114.3 x 160cm, oil on wood, Antwerp, Museum Mayer van den Bergh), illustrated in Gibson, 2006, p. 125. In the background, housewives are depicted plundering demons' homes for their treasures while others are fighting demons off and tying them up with rope.

<sup>276</sup> Davidson, 1975, p. 142.

<sup>277</sup> Emile Grillo Degivry, *Picture Museum of Sorcery, Magic and Alchemy*, trans. J. Courtenay Locke, Whitefish, M.T.: Kessinger Publishing, 2003, p. 337.

<sup>278</sup> Guiley, 2006, p. 304.

peasants depicted drinking and smoking. As mentioned in the second chapter, it was believed those who paid the services of alchemists were at risk of eternal damnation.<sup>279</sup> This is a possible link of the hanging fish and reptiles in representations of medical professions whose foundations also laid in alchemy. This interpretation is all the more likely as Teniers was Catholic and such beliefs in demons and witches were still prevalent in the seventeenth-century Netherlands.<sup>280</sup> Teniers reference to supernatural creatures, his interest in the exotic and didactic correlate with Counter-Reformation aesthetics associated with High Baroque art, which is also illustrated by his interest in moralising religious themes depicted in genre settings.<sup>281</sup> Representations of the alchemist therefore allowed Teniers to extend his interest in religious and moralising themes in a seemingly objective genre depiction of an alchemist. Therefore, the strung up animals represented in Teniers' paintings allowed for demonic symbolism in genre painting that were designed to reflect everyday human experience and shun the supernatural.<sup>282</sup> However, as illustrated above, they were frequently used as a vehicle for depicting religious themes centred on orthodox principles.<sup>283</sup>

In one of Teniers least subtle satirical representations of an alchemist, the figure is represented as a monkey. This is illustrated in the engraved reproduction of an original painting, which does not survive, *Le Plaisir des Fous* ('The Pleasure of

---

<sup>279</sup> Haynes, 2007, p.11; Elmer, 2004, p. 121.

<sup>280</sup> Davidson, 1979, pp. 42-3. There were a number of treatises published on demonology during the seventeenth century. See for example Richard Gilpin, *Daemonologia sacra: or, A Treatise of Satan's Temptations; in three parts*, London: J.D. for Randel and P. Mapliden, 1677; Pierre de L'Ancre, *Tableau de l'inconstance des mauvais anges et demons: ou il est amplement traicté des sorciers et de la sorcellerie*, Paris: J. Berjon, 1612.

<sup>281</sup> Davidson, 1979, p. 52.

<sup>282</sup> Kahr, 1993, p. 8.

<sup>283</sup> *Ibid.*, p. xiii.

Fools') (fig. 14) by Pierre François Basan in the eighteenth century.<sup>284</sup> The monkey was often used to symbolise human folly and the base instincts of humanity. As they were great imitators, monkeys represented in human clothing were used for mockery designed to target the imitated.<sup>285</sup> Within this context, the monkey again represents the unthinking 'puffer' only concerned with the mechanics of alchemy.<sup>286</sup> However, the image of the peasant puffer lies in juxtaposition with the monkey wearing attire associated with higher rank. While his tall hat is donned with feathers, his coat is embellished with white ruffles around the neck. The elegant clothing and hat accentuates the theatricality of the image of a monkey using the bellows to fan the flames, which was unlikely attire for any practicing alchemist. In this regard, it is not only mocking folly but also vanity,<sup>287</sup> as the alchemist was typically thought of as arrogant by delving into the realm of God.<sup>288</sup> As monkeys were thought as overstepping their natural order by imitating humans, so too were alchemists who were perceived as overstepping their place by imitating God.<sup>289</sup>

Teniers has represented the monkey playing human roles on a number of occasions, for instance, dressed up in the brightly coloured attire of Spanish soldiers.<sup>290</sup> In this context, it was a likely bold satirical comment on the Spanish occupation of his native Flanders. They have also often been portrayed drinking, smoking and dozing off,

---

<sup>284</sup> Principe and DeWitt, 2002, p. 13.

<sup>285</sup> Carr-Gomm, 1995, p. 25.

<sup>286</sup> Read, 1947, p. 78.

<sup>287</sup> Corbett, 2004a, p. 75.

<sup>288</sup> Principe and DeWitt, 2002, p. 6.

<sup>289</sup> Tompkins, 1994, p. 28.

<sup>290</sup> *Ibid.*, p. 60. See for example David Teniers the Younger, *A Festival of Monkeys* (1633, oil on copper, 33 x 41.5cm, Private collection), in Margret Klinge, *David Teniers the Younger*, trans. David R. McLintock exh. cat., Koninklijk Museum voor Schone Kunsten, Belgium: Snoeck-Ducaju & Zoon, 1991, p. 34.

much like the peasants depicted in his tavern scenes mentioned above.<sup>291</sup> The drawing of the owl returns again in such representations, pinned to a prominent position. The monkey at the hearth diligently puffing at the flames with the bellows in *Le Plaisir des Fous* also appears to be dressed in similar attire of Spanish soldiers, with cocked hat and feathers. Instead of a sword, a glass vial is attached to its belt. It could appear that like the connection between the alchemist and tavern scene, Teniers is connecting the ‘puffer’ monkey with the Spanish soldiers as they too were believed to be unthinking foot soldiers with bloated notions of grandeur. Teniers is following in a strong tradition of numerous tales and myths across the world of people being turned into monkeys for exhibiting too much pride.<sup>292</sup> The monkey has symbolised sin since early Christian Europe.<sup>293</sup> Davidson argued that Teniers’ representations of monkeys imitating humanity was rather intended as ‘good natured humor’ rather than intended as strong criticism. She cites his representation of monkeys as painters as evidence that he was unlikely to be scornful of his own profession.<sup>294</sup> It is possible that in such representations Teniers is mocking his imitators, as the monkey was recognised as one of the great imitators,<sup>295</sup> in which his paintings were particularly subject of in the Netherlandish culture of copying.<sup>296</sup> As just revealed, however, his paintings were also often highly moralising, which renders Davidson’s interpretation unlikely, as is further evidenced by the artist's numerous representations depicting monkeys.

---

<sup>291</sup> See for example David Teniers the Younger, *Smoking Monkeys in a Tavern* (1610-1690, medium and location unknown), illustrated in Peyre, c.1910, p. 113.

<sup>292</sup> Tompkins, 1994, p. 8.

<sup>293</sup> *Ibid.*, p. 38.

<sup>294</sup> Davidson, 1979, p. 40.

<sup>295</sup> Carr-Gomm, 1995, p. 25; James A. Welu, *The Collector’s Cabinet: Flemish Paintings from New England Private Collections*, Amherst, Massachusetts: University of Massachusetts press, 1983, p. 124.

<sup>296</sup> See for example David Teniers the Younger, *The Monkey Painter* (1610-1690, oil on canvas, 24 x 32cm, Prado, Madrid), illustrated in Welu, 1983, p. 125.

Hendrik Heerschop's (c.1620-1672) 1671 (fig. 10) representation of an alchemist is depicted in a state of idleness, leaning on his chair, smoking, while watching the process of distillation. While there is less chaos than Bega's representation of the alchemist, the sock pulled down to reveal his bare leg makes a subtle reference to personal carelessness. It has been suggested that the bare leg was a symbol of poverty,<sup>297</sup> but in this interior, there are no other apparent signs of poverty. In this painting, Heerschop appears to represent the middle-class alchemist as opposed to the earlier works discussed who have chosen to represent the peasant alchemist. Although little is known of Heerschop, he did not appear to work in the low-life genre and his representations of the alchemist reflect this. Although he resided in Haarlem where low-life painting became quite popular, Heerschop appears to have been particularly keen on representing middle-class genre interiors as well as religious and historical themes.<sup>298</sup> Heerschop appears to have adopted the comic and didactic elements of the low-life genre of his predecessors and adapted them to the rising middle-classes as was the case with his contemporary artist-peer Jan Steen (1626-1679).<sup>299</sup>

Yet, this does not mean that his representations of alchemists were any less negative or satirical. The didactic message that would have been more readily apparent in the seventeenth-century Protestant Dutch Republic is reflected in the perceived idleness of the alchemist who was required to make a continuous watchful eye over alchemical

---

<sup>297</sup> Corbett, 2006, p. 254.

<sup>298</sup> See for example Hendrik Heerschop, *Property of Ambrose Naumann Alexander The Great and Diogenes* (1661, oil on canvas, 136 x 167.7cm, Texas, The Tyler Museum of Art), illustrated in Werner Sumowski, *Gemälde der Rembrandt-Schüler*, Landau: Edition PVA, 1983, p. 106.

<sup>299</sup> Mariët Westermann, 'Steen's Comic Fictions' in Guido M. C. Jansen (ed.), *Jan Steen: Painter and Storyteller*, exh. cat., Washington, National Gallery of Art; Amsterdam, Rijksmuseum; New Haven, Yale University Press, 1996, p. 59.



processes that required continuous heat,<sup>300</sup> particularly within the context of the Dutch Republic where each person was expected to work for the common good.<sup>301</sup> Smoking was also often represented negatively in genre tavern scenes constituting a genre in itself that became associated with socially deviant behaviour and was therefore condemned by the Church as vice,<sup>302</sup> thereby further criticising his alchemical pursuits.<sup>303</sup> Smoking was often depicted as sinful behaviour, for its idleness and luxurious excess as it was an expensive habit during the seventeenth century.<sup>304</sup> It was marked by a range of disorderly behaviour including drunkenness, lustful couples in a state of embrace with even young children depicted drinking and smoking in depictions of tavern scenes and ‘merry company’.<sup>305</sup> Pipes were also often used as a symbol of *vanitas*, alluding to the transience of life.<sup>306</sup> In terms of the alchemist, he is wasting his time on his foolish and sinful pursuits. The painting could serve as a warning against the idle middle-class where smoking became a popular habit among all layers of society.<sup>307</sup> The alchemist’s casual approach and modest alchemical set-up in his basement in which the narrow staircase leading to a windowless room alludes to, resembles a hobby rather than a profession or a peasant in desperation seeking a

---

<sup>300</sup> Corbett, 2006, p. 254; Taylor, 1974, p. 105.

<sup>301</sup> Muizelaar and Philips, 2003, p. 5.

<sup>302</sup> Schama, 1979, p. 116.

<sup>303</sup> Franits, 1997, p. 5. See for example Adriaen Brouwer, *The Smokers* (c.1633-5, oil on wood, 46.4 x 36.8cm, New York, Metropolitan Museum of Art), illustrated in Mariët Westermann, ‘How was Jan Steen Funny? Strategies and Functions of Comic Painting in the Seventeenth Century’ in Jan Bremmer and Herman Roodenburg (eds), *A Cultural History of Humour: From Antiquity to the Present Day*, Cambridge: Polity Press, 1997, p. 158.

<sup>304</sup> Davidson, 1979, p. 38; Schama, 1987, p. 3; Thomas, 1971, p. 20.

<sup>305</sup> See for example David Ryckaert III, *The Smokers* (1612-1661, dimensions, medium and location unknown), illustrated in Haute, 1999, p. 288. A group of men are depicted smoking in a tavern scene. One on the far left obviously intoxicated marked by the mug in his hand attempts to place his pipe in his nose. Meanwhile an amorous couple in the background are depicted kissing; David Ryckaert III, *As the old one sing, so the young ones pipe* (1639, dimensions and medium and location unknown), illustrated in Haute, 1999, p. 289. In a crude interior a group of men appear to be drinking and smoking while enjoying a sing-a-long while a group of young children are depicted drinking and smoking.

<sup>306</sup> Hall, 1994, p. 210.

<sup>307</sup> Haute, 1999, p. 25.

short-cut to wealth. It also suggests the mystery surrounding the practice of alchemy whose secrets were guardedly kept in a practice that was often demonised.

In a later representation of an alchemist by Heerschop entitled *The Alchemist's Experiment Takes Fire* (fig. 11), the didactic message was more evident and the satire readily apparent. Once again, the alchemist's sock has fallen down, exposing his knee. It would be difficult to confuse this particular representation of the fallen sock as a sign of poverty, with no other apparent iconography that alludes to poverty. The use of bright colours with cool tonality reflects the influence of the French academic style during the late seventeenth-century on many Dutch painters, which also sets it apart from the more rustic, brown monochrome tonality that was often used to represent peasants.<sup>308</sup> The alchemist is represented in a state of alarm as the air fills with vapours and broken glass from the exploding alembic (or alchemical still), used for distilling. The alembic and receiver once sealed could not let air that expands from the heat to escape. The increased pressure often resulted in explosions.<sup>309</sup> Just prior to the explosion it is evident that the alchemist was sitting at his desk reading, which alludes to the representation of the scholar, however, the moment of explosion takes away from what could have been a more dignified representation. The bellows beside his feet also takes away from what could have been a traditional scholarly representation. His family is revealed in an open doorway, providing a glimpse of the danger that he could have placed his family in. The motif of his wife cleaning her baby's bottom also signifies a pointed criticism at his lack of success and the hazard he has caused. The

---

<sup>308</sup> Principe and DeWitt, 2002, p. 27.

<sup>309</sup> Ibid., p. 26. The glass vessels were also usually made out of soft glass with the technique of gradual heating and cooling developed later, further making distilling more susceptible to such instances.

painting highlights the potential dangers of the practice of alchemy.<sup>310</sup> In addition, while the broken kitchen plate on the ground with the chip facing the audience was not usually used as alchemical equipment, it may have referred to stories of part or entire kitchen plates that were turned into gold or silver. A famous story in the seventeenth century recounted English alchemist, John Dee, who cut a piece out of a metal warming dish, transmuted it into silver without melting it, reattached the broken piece and sent it to Queen Elizabeth I to prove his ability in transmuting metal.<sup>311</sup> The plate represented in this painting could thus allude to the unsuccessful attempt and futile aim of transmutation.

As previously mentioned, Steen also chose to represent the alchemist in a middle-class setting, however, he often relied on strong caricature and stereotyping to push his didactic message across.<sup>312</sup> Though born in Leiden,<sup>313</sup> Steen was in Haarlem (1661-1669) during the period when he produced his representations of the alchemist where it is believed that Adriaen van Ostade was one of his teachers.<sup>314</sup> He was no doubt influenced by the other Haarlem painters who took up the subject of the alchemist in their low-life genre painting. In his c.1668 painting (fig. 8), the alchemist sitting at the hearth is about to place what appears to be the last coin in the crucible, indicative of the empty fabric purse that lies on the floor which appears to belong to the weeping woman beside him, which recalls the satire of Bruegel. The woman, who

---

<sup>310</sup> Ibid.

<sup>311</sup> Ibid.

<sup>312</sup> Heidi de Mare, 'Domesticity in Dispute: A Reconsideration of Sources', in Irene Cieraad (ed.), *At Home: An Anthropology of Domestic Space*, Syracuse, N. Y.: Syracuse University Press, 2006, p. 21.

<sup>313</sup> Read, 1947, p. 79.

<sup>314</sup> Principe and DeWitt, 2002, p. 18; Chapman, 1996, p. 16.

is often regarded as the wife,<sup>315</sup> watches the coin about to be dropped into the crucible. The alchemist looks up to the woman and gestures arrogantly with his arm as if to justify his actions.

Since alchemists were often represented in their home with a woman beside them or in the background attending to domestic duties, it is reasonable to assume they were their wives. However, in this painting the nature of the relationship is not so clear. While the interior does not provide enough evidence to suggest a shared household, the small boy tags behind the woman grasping at her dress, which suggests they are visiting a stranger in a new location. The child also appears to be wearing a long, buttoned up coat indicative of outdoor wear to suggest their journey. Although her dress is torn, the shimmering material suggests that the woman is wearing her best outdoor finery, which is unlikely attire that would be worn in the home conducting domestic duties. She also wears a brown hat over her white indoor cap,<sup>316</sup> further indicating her journey. Most other women represented within the home in alchemical paintings wore scarves around their hair (fig. 2) (fig. 3) (fig. 11) (fig. 13) (fig. 23). It is quite possible that this is a representation of a desperate woman who seeks the aid of an alchemist, her poverty indicative of the tear in her sleeve. Her shabby dress suggests she has fallen on hard times and is possibly a widow.<sup>317</sup> This painting could reasonably be a representation of the alchemist as a charlatan who is taking advantage of the desperate and somewhat foolish woman. The two men in the background

---

<sup>315</sup> See for example Corbett, 2006, p. 256; Read, 1947, p. 81; Grant, 1980, p. 70; Brinkman, 1982, pp. 32, 49.

<sup>316</sup> Hilda Amphlett, *Hats: A History of Fashion in Headwear*, Mineola N.Y.: Courier Dover Publications, 2003, p. 103.

<sup>317</sup> Hartlaub, 1947, pp. 33-4. Hartlaub also interprets the representation of the woman to be a widow, indicating that the gesture and expression of the alchemist is less likely to represent her husband. Although Hartlaub supports the idea that this is a representation of a widow, he alternatively suggests that the travelling alchemists are staying with the widow under false pretences.

appear to be writing, perhaps recording the transaction between the alchemist and the woman. The men further resemble the two men in Bruegel's influential sixteenth-century image. The man writing resembles the scholar while the man beside him with his devilish grin and hook nose resembles the mad puffer, but in less characteristic attire.<sup>318</sup>

Given that the paper pinned to the chimney bears the name of the Renaissance alchemist and physician 'Teophrastus Paracelsus', the woman is quite possibly seeking the alchemist for medicinal purposes.<sup>319</sup> Paracelucian physicians were also frequently stigmatised as charlatans.<sup>320</sup> A gold linked chain that sits on the hearth in front of the alchemist resembles a piece of jewellery that may have been exchanged for services rendered. Quack doctors selling their potions in markets were the more typical representation of the charlatan in seventeenth-century Netherlandish art, where the audience was the subject of mockery for their gullibility.<sup>321</sup> Steen has in all likelihood provided a more sympathetic view to those who were duped by the charlatan alchemist whose services were sought as seen in Ben Jonson's play *The Alchemist*, which describes three charlatan alchemists who deceived their customers.<sup>322</sup> This literary source could have quite likely influenced Steen's representation of the alchemist as his paintings were known to be influenced by the theatre despite the obvious influence by Bruegel.<sup>323</sup> This alternative reading of a charlatan taking advantage of a woman seeking assistance rather than of a neglectful

---

<sup>318</sup> Corbett, 2004a, p. 101.

<sup>319</sup> Read, 1947, p. 81.

<sup>320</sup> Elmer, 2004, p. 113.

<sup>321</sup> See for example Frans van Mieris the Elder, *The Quack* (c. 1653-1655, 45 x 36cm, oil on panel, Florence, Galleria degli Uffizi), illustrated in Buvelot, 2005a, p. 80.

<sup>322</sup> See Ben Jonson, *The Alchemist* (1610), Charleston, South Carolina: Forgotten Books, 2008.

<sup>323</sup> Westermann, 1996, pp. 54-55.

husband can be supported by a similar painting by Steen dated to the same year (fig. 9).<sup>324</sup> This lesser known representation closely resembles the painting just explored, however, the weeping woman stands in front of an open doorway instead of a window and a man is depicted between the alchemist at the hearth and the weeping woman who is reading to the woman from a piece of paper. These slight alterations provide evidence of Steen's intention of representing a woman who visits an alchemist which highlights the folly of the gullible woman by an arrogant and deceitful alchemist.

Representations of peasant homes and taverns were depicted with a similar dimly lit and earthly monochromatic tonality, and sense of chaos as the domain of the alchemist. Commonly shared motifs include ass's ears and the owl referring to foolishness and charlatanism,<sup>325</sup> as well as the wiping of baby's bottoms which bluntly refers to the moral degradation of the scene, squarely placing puffers at least, in the same ilk as other low-life representations. Most of the alchemists covered in this chapter of fools or charlatans are represented as peasants with the exception of Heerschop, who represented middle-class alchemists, although the satire and didactic messages common to the genre remained. The adaptation of low-life genre representations of the alchemist to middle-class settings appear to have been adopted in the latter half of the seventeenth century to enable moralising themes to be more directly communicated to the intended audience who had been traditionally represented with decorum where animated caricatures of Heerschop and Steen were

---

<sup>324</sup> Brinkman, 1982, p. 49-50.

<sup>325</sup> See for example David Teniers the Younger, *Peasants Celebrating Twelfth Night* (1635, oil on panel, 47.2 x 69.9cm, Washington D.C., National Gallery of Art), illustrated in Dennis P. Weller (ed.), *Jan Miense Molenaer: Painter of the Dutch Golden Age*, exh. cat. Raleigh, North Carolina: North Carolina Museum of Art, 2002, p. 122.

originally restricted to the low-life genre.<sup>326</sup> This reflects a shift that occurred in 1650, where images of genre themes of the peasantry and elite were overcome by a demand in images highlighting domestic virtue in middle-class settings.<sup>327</sup>

However, throughout the seventeenth century, low-life genre paintings found a ready market within the middle-classes and art market of northern Europe.<sup>328</sup> They were also popular among wealthy patrons of the Spanish Netherlands.<sup>329</sup> The popularity of the puffer alchemist in particular is evidenced by the large number of alchemists represented in art of this period, especially by Teniers who was a commercial artist who created works of art in which the public wanted to buy which was standard practice within seventeenth-century Netherlands.<sup>330</sup> The paintings just discussed were generally of a modest size, which suggests they were designed for sale on the open market directly to the middle classes. Although sold at relatively low prices, paintings were still out of reach of many peasants whose stock inventories indicate that they tended to prefer owning textiles over paintings.<sup>331</sup> Alchemical laboratories in particular provided ample possibilities for providing picturesque scenes, with collections of still-life and alchemical equipment to provide fascinating detail that rewarded close viewing. However, this would have provided only one layer of appeal for alchemical representations during the seventeenth century.<sup>332</sup> As with many works

---

<sup>326</sup> Gibson, 2006, p. 50.

<sup>327</sup> Chapman, 2001, p. 133.

<sup>328</sup> Grant, 1980, p. 141; Sluijter, 2001, pp. 119, 123-5. In a case study of a prosperous middle upper-class Catholic, Hendrick Bugge van Ring, the inventory of his paintings illustrate that he was a keen collector of peasant scenes and images from the 'low-life' genre, owning paintings by Teniers, Steen, van Ostade, van de Venne and Bega.

<sup>329</sup> Principe and DeWitt, 2002, p. 13.

<sup>330</sup> Davidson, 1979, pp. 50-1.

<sup>331</sup> Honig, 1998, pp. 14, 17; Kahr, 1993, p. 10; North, 1997, p. 47.

<sup>332</sup> See Hill 1975, p. 107. Hill suggests that alchemical equipment, particularly in the works of Teniers merely provided entertaining detail.

of art during this period, they could be appreciated for their aesthetic appeal as well as didactic symbolism.

Covetousness and idleness, which formed the theme of many of the paintings just discussed, were condemned by both the Protestant and Roman Catholic Churches.<sup>333</sup> Greed in obtaining riches through the ‘short-cut’ route of transmuting base metals into gold and idleness in fanning the flames with bellows and watching distillation, served as a warning to avoid the corruptive attractions of worldly greed and potential laziness in the opulent Golden Age of seventeenth-century Netherlandish society and culture.<sup>334</sup> Works of art dealing with these themes of mockery and critique of peasant social behaviours and cultural values offered a model for the middle class to avoid – or at the very least to allow the audience an air of smugness in regards to their own good taste and higher breeding. Artists were able to reinforce a negative image and identity of the alchemist through attention to class distinctions, caricature and stereotyping, which helps to explain their popularity with the target audience of the middle class who strove to imitate the nobility and separate themselves from the peasantry.<sup>335</sup> The demand for moralising images in the Netherlandish culture of shaming therefore contributed to the demand of alchemical representations of moralising themes.<sup>336</sup> Instead of providing a moral lesson needed by those depicted in the paintings, the representation of peasant alchemists in particular were reserved for the educated viewers of the middle classes who could interpret their symbolic

---

<sup>333</sup> Judith Pollmann, *Religious Choice in the Dutch Republic: The Reformation of Arnoldus Buchelius, 1565-1641*, Manchester: Manchester University Press ND, 1999, p. 199.

<sup>334</sup> Buvelot, 2005a, p. 85.

<sup>335</sup> Gibson, 2006, p. 80.

<sup>336</sup> Kahr, 1993, p. 9; Westermann, 1997, p. 141.



meanings.<sup>337</sup> The artists explored in this chapter were also predominately derived from well-to-do middle-class families themselves, and quite a few of them became wealthy or received respectable incomes from their art where the attitudes of the audience of these paintings could also very well reflect those of the artists.<sup>338</sup> By reinforcing shared beliefs, it further helped cement unity amongst the rising middle classes.<sup>339</sup>

These negative representations of the ‘puffer’ alchemist also reflected the disapproval of purely operative alchemy, rather than philosophical alchemy which will be explored in the following chapter. This is further supported by the opinions of Robert Boyle and Francis Bacon. As mentioned in the previous chapter, Boyle was scornful of alchemists only concerned with the mechanical aspects without taking a theoretical or philosophical approach.<sup>340</sup> Bacon similarly did not think much of purely mechanical pursuits stating, ‘I care little about the mechanical arts themselves only about those things which they contribute to the equipment of philosophy’.<sup>341</sup> This poor regard for mechanical pursuits can be correlated to the artists in this period that emulated the professional aspirations of their Renaissance predecessors and wanted to distance themselves from the crafts in order to boost their social status by creating

---

<sup>337</sup> Westermann, 2005, pp. 15, 67. The large circulation of paintings further highlights the visual literacy of the symbolic themes explored within the paintings discussed.

<sup>338</sup> Read, 1947, p. 81. Bega came from a prosperous family whose mother inherited half the estate of her father, Cornelis Cornelisz van Haarlem (1562-1638), a renowned mannerist artist. Bok, 2006, pp. 25-6. Steen derived from an upper middle-class family. His father was a brewer which belonged to one of the wealthiest professions at the time. Hill, 1975, p. 104; Davidson, 1979, p. 5; Principe and DeWitt, 2002, p. 13. Teniers would have gained a comfortable income from serving as court painter for both Archduke Leopold Wilhelm and Don Juan of Austria in Brussels and from several royal patrons.

<sup>339</sup> Kahr, 1993, p. xi.

<sup>340</sup> Principe, 2000, p. 33.

<sup>341</sup> Francis Bacon, *The Works of Francis Bacon, Volume 4 (1561-1626)*, trans. William Rawley, London: Longmans, 1858, p. 271.

guilds and joining literary groups,<sup>342</sup> even applying for nobility.<sup>343</sup> This disdain for manual labour was carried over from Ancient Greece and continued well into the seventeenth century as illustrated above.<sup>344</sup> As a result, peasant alchemists depicted at work helped consolidate social order in seventeenth-century Netherlands.<sup>345</sup>

---

<sup>342</sup> Alpers, 1983, p. 113.

<sup>343</sup> Davidson, 1979, pp. 29-30.

<sup>344</sup> Smith, 2004, p. 7; Aristotle, *Politics*, Book 3, Part V. Aristotle stated that craftsmen could not be full citizens as 'no man can practice virtue who is living the life of a mechanic or laborer'. Also see Rossi, 1968, pp. 25-6.

<sup>345</sup> Bernadette van Haute, 'Ryckaert at Work: A Flemish Painter's View of Labour', *de arte*, 77, 2008, p. 4.

## 4 THE SCHOLAR

The representation of the alchemist as a scholar lays in stark contrast to the portrayal of fools and charlatans discussed in the previous chapter. Yet, this more dignified representation of the early modern alchemist was just as frequently represented in seventeenth-century Netherlandish painting, including the depiction of both types by artists like David Teniers the Younger. The image and identity of the alchemist as a serious scholar was also just as moralising as the representation of his lowlier peasant-alchemist counterpart, however, these paintings reveal more complexity in their diversity of representation. The scholarly alchemist was typically represented sitting at his desk pouring over books rather than huddled at the hearth. His desk often displayed *vanitas* still-life objects, in particular, a human skull or hourglass, which was used to contemplate one's mortality and symbolise the transience of life.<sup>346</sup> The still-life genre of *vanitas* derives from Ecclesiastes 1.2 from the Old Testament that opens with the words 'vanity of vanities, all is vanity'. The text was often cited to point out the futility in earthly goods and pursuits.<sup>347</sup>

The scholarly representation of the alchemist also included erudite motifs such as a globe and piles of books that also served as symbols of *vanitas* when accompanied with other symbols of worldly transience.<sup>348</sup> The value of knowledge gained from books was viewed sceptically by some at a time when publishing reached

---

<sup>346</sup> Corbett, 2006, p. 251.

<sup>347</sup> Westermann, 2005, p. 59.

<sup>348</sup> Norbert Schneider, *Still Life: Still Life Painting in the Early Modern Period*, Köln: Taschen, 2003, p. 80.

considerable expansion during the seventeenth century.<sup>349</sup> The seventeenth century saw over a hundred alchemical treatises published.<sup>350</sup> Knowledge recorded in books and as represented by a globe was considered ephemeral,<sup>351</sup> in accordance with the Christian notion of an eternal after life. Objects of knowledge combined with other *vanitas* symbols also served to remind the audience of the desirable virtue of humility in contrast to the power of God and ‘before the leveling powers of death’.<sup>352</sup> Alchemical apparatus in scholarly depictions of the alchemist were usually of secondary interest by their placement in the far corner or background of compositions, while laboratory assistants were also frequently shown working in the background carrying out the practical alchemical laboratory tasks.

It is likely that the representation of the alchemical scholar reflected the image of natural philosophers. The latter were interested in the broader considerations of alchemy in understanding the nature of matter and its processes as well as religious considerations regarding the universe as opposed to the practical operative aspects of alchemy of transmuting base metals into gold as defined by Roger Bacon,<sup>353</sup> and later personified in the work of Isaac Newton and Robert Boyle. In addition, the representations of the alchemical scholar are also reminiscent of representations of early Christian Church Doctor, St. Jerome, who was esteemed as the most learned saint and often depicted writing or contemplating peacefully in his study at his

---

<sup>349</sup> Ibid., p. 86.

<sup>350</sup> Davidson, 1979, p. 39.

<sup>351</sup> Fred G. Meijer, *Dutch and Flemish Still-life Paintings*, Oxford: Ashmolean Museum, 2003, p. 154.

<sup>352</sup> Charles Sterling, *Still Life Painting: From Antiquity to the Twentieth Century*, second ed., New York: Harper and Row, 1981, p. 47.

<sup>353</sup> Bacon, 1859, pp. 39-40.

desk.<sup>354</sup> The saintly scholar was also frequently surrounded by still-life elements of *vanitas* such as a human skull and hourglass timer as illustrated in Albrecht Dürer's *Saint Jerome in His Study* (fig. 26). It is commonly held that this popular religious image served to illustrate successful scholarship in service to God.<sup>355</sup> This representation of quiet dignity is far removed from the earlier representation of Breugel's satirical representation of an alchemist, which inspired the representations of the alchemist as fool and charlatan.

Thomas Wijck's (1616-1677) calm representations of alchemical scholars lie in stark contrast to the satirical representations of the alchemist of his teacher Adriaen van Ostade (fig. 3) as well as the popular low-life genre which captivated his birthplace of Haarlem.<sup>356</sup> Wijck represented his alchemists in a similar vein as his painting entitled *The Scholar*,<sup>357</sup> with a studious figure reading at his desk beside a window, sprawled with books, papers and a globe. Yet, his approach to the theme of alchemy is differentiated from traditional representations of the scholar in that there are no symbols of *vanitas*. Although a globe is commonly placed amongst piles of books in Wijck's representations of alchemists, there are no arrangements of other *vanitas* symbols to indicate that they were used to provide a moral reading to the contemporary viewer. Wijck has been likened to the David Teniers the Younger of the north, as he was one of the most prolific painters of the alchemist.<sup>358</sup> However, Wijck

---

<sup>354</sup> Alban Butler, *Butler's Lives of the Saints: September*, Turnbridge Wells, Kent: Burns and Oates, 2000, p. 274.

<sup>355</sup> David Price, *Albrecht Dürer's Renaissance: Humanism, Reformation, and the Art of Faith*, Michigan: University of Michigan Press, 2003, p. 86.

<sup>356</sup> Principe and DeWitt, 2002, p. 22; Read, 1947, p. 82.

<sup>357</sup> See for example Thomas Wijck, *The Scholar* (1600s, oil on panel, 40.6 x 34.3cm, Philadelphia, Chemical Heritage Foundation, Eddleman Collection), illustrated in Principe and DeWitt, 2002, p. 23.

<sup>358</sup> Corbett, 2004b, p. 165.

typically represented the alchemist in his study rather than a laboratory. Like Teniers, many of his representations of an alchemist only have slight variations, often representing the same bearded man at his desk, writing or in contemplation. The scholar is never depicted carrying out laboratory tasks; rather an assistant is sometimes depicted undertaking the practical tasks of alchemy.<sup>359</sup> Wijck also uses many reoccurring motifs such as the desk beside a window, mountains of books and papers upon the desk, as well as a large globe, birdcage and a portrait on the wall. A dividing curtain is also typically included in the often-cluttered study with books and pots littering the floor. Wijck's paintings are further differentiated from his Netherlandish contemporaries because of the influence of Italian art that he gained from his travels to Rome and Naples. This is demonstrated by his use of contrasting light, which is applied by dashes of white highlights on a dark underpainting and interior elements such as the use of vaulted ceilings, pillars and arches that frame the setting.<sup>360</sup>

Wijck's *L'Alchymiste en Méditation*, ('The Alchemist in Meditation') (fig. 16) closely resembles Dürer's *Saint Jerome in His Study* as he is depicted at his desk writing in his manuscript, highlighted by the light of the window to his left. A glass alembic, which was not in the current use for the distillation process, and what appears to be a metal free-standing furnace (athanor) in the far right corner of the composition are the only objects that provide evidence of the scholar's alchemical interests.<sup>361</sup> There is however a clear sense of disorder with pots and papers littering the floor. Yet, the

---

<sup>359</sup> See for example Thomas Wijck, *The Alchemist* (1600s, panel, 41 x 35.5cm, St. Petersburg, Russia, St. Petersburg Hermitage), illustrated in Corbett, 2004a, p. 325.

<sup>360</sup> Principe and DeWitt, 2002, p. 22.

<sup>361</sup> Eric. J. Holmyard, *Alchemy*, New York: Dover Publications, 1990, p. 47.

scholar still appears to maintain a sense of quiet dignity as a well-dressed and groomed figure. Nevertheless, there is a faint echo of the contemporary idea of the absent minded-professor, who is more interested in scholarship than the material world as evidenced by the disorder of his study which seems a more likely interpretation than Corbett's suggestion that the disordered study alludes to a disordered mind.<sup>362</sup> Wijck's alchemist also resembles a financially comfortable man as evidenced by his fine furnishings. Despite the clutter, each object appears to be in good working order, implying that he possesses the luxury to spend his time musing over ideas. A portrait painting on the wall also alludes to his higher socio-economic status as painted portraits tended to be reserved for and affordable to the higher classes.<sup>363</sup> The birdcage further symbolises the alchemist's wealth as they were typically used to contain imported birds.<sup>364</sup> As Read indicates, because of the disorder of the alchemist's study, he inspires no confidence as a practical worker which is supported by Wijck's many paintings where an assistant is represented carrying out the actual practical matters and manual tasks associated with the process of transmutation.<sup>365</sup> However, as discovered in the previous chapter, the practical operative practitioners of alchemy were neither held in great esteem. In this way, Wijck's representation of a scholarly alchemist highlights the greater tolerance for the alchemist who was able to financially support their hobby.

In another painting of a scholarly alchemist, Wijck created a unique representation that resembles more of an intimate portrait than a genre scene. In *The Alchemist in his*

---

<sup>362</sup> Corbett, 2004a, p. 265.

<sup>363</sup> Kahr, 1993, p. 71.

<sup>364</sup> Westermann, 2001, pp. 31, 42.

<sup>365</sup> Read, 1947, pp. 82-3.

*Studio* (fig. 17), the artist portrays a contemplative alchemist who gazes into the distance, pondering the letter he has been reading in his hand. His back is turned from the desk he was likely sitting at, filled with his usual motifs of piles of books, papers and a large globe. The alchemical still is depicted in the foreground, however, it is again of secondary importance. The alchemist wears a beret and fur-lined coat of a scholar.<sup>366</sup> As is the case in Wijck's other representations of alchemists, he is represented as serene and confident. The studied tranquillity and composed atmosphere of the painting is also reminiscent of the almost voyeuristic depiction of dignified lawyers reading in their study in van Ostade's works.<sup>367</sup>

In another representation of a scholarly alchemist by Wijck (fig. 13), the protagonist is positioned in the background of his study reading and once again surrounded by books and a globe. His family is represented in the foreground of the composition. The wife prepares a meal with the help of the eldest son. In this picture, the kitchen appears to be a joint space for cooking as well as alchemical distillation where the process takes place in the far left, taking less prominence in the interior. Although there is some element of disorder in the kitchen with utensils littering the floor, it is nevertheless uniquely harmonious and disciplined representation of an alchemist and his family. While the theme of poverty was often used to highlight the folly of alchemy, Wijck highlights that this family is well fed by the emphasis placed on the preparation of food and a large loaf of bread on the table. There is also a sense of togetherness as the boy helps his mother while the youngest child plays beside them

---

<sup>366</sup> McKeon, 2006, p. 213.

<sup>367</sup> See for example Adriaen van Ostade, *A Lawyer with a Letter or Document in his Study* (1680s, oil on panel, 34.5 x 28cm, Rotterdam, Museum Boijmans Van Beuningen), illustrated in Peter C. Sutton (ed.), *Love Letters: Dutch Genre Paintings in the Age of Vermeer*, London: Frances Lincoln Ltd., 2003, p. 159.



on the floor and the scholarly husband absorbed by a tome in the background. As a result, there is a sense of well being rather than neglect, which was more reminiscent of van Ostade's 1661 (fig. 3) approach to the representation of the alchemist. The interior also highlights that this is a comfortable, well-to-do family with the high vaulted ceilings and grand central pillar leading the viewer's eye to show off its secondary spacious level. This is a representation of a middle-class amateur alchemist or hobbyist that recalls the alchemists represented by Hendrik Heerschop in the previous chapter, however, there are less discernable negative undertones.

In regards to iconography, a lizard and small fish is hung from the ceiling, indicating Wijck's influence from David Teniers the Younger. Though it is difficult to see in the reproduction of the painting, the lizard resembles an actual species rather than the curious looking generic specimens typical of Teniers. In the event that Wijck's portrayals of alchemists did not possess negative moralising symbolism or didactic messages, it is more than likely to have been adopted by the artist without possessing the same symbolic meaning. Alternatively, the adoption of a similar motif of Teniers that was reinterpreted in a positive representation of an alchemist, negating didactic undertones, could serve as a counteractive representation to the highly moralising and religious representations reflected in the representations by Teniers. Likewise, the collected specimens also fit within the cultural context of a financially comfortable alchemist, whose image not only signified the quintessential scholar, but also reflected an aristocratic cabinet of curiosities.<sup>368</sup> The birdcages common to Wijck's representations of alchemists which were typically used to hold imported birds could provide further evidence of the learned practice of exhibiting marvels of the natural

---

<sup>368</sup> Bennett, 1995, p. 59.

world.<sup>369</sup> As a result, this painting serves as a rare example in which the representation of alchemy and domestic home life successfully coexisted.

David Teniers the Younger's self-portrait as a scholarly alchemist in traditional fur-lined robe and cap, possibly attests to the more esteemed position held by the scholar alchemist and its creative and chemical relationship to the practice of early modern art.<sup>370</sup> Yet, it is also believed that he represented himself on a number of occasions as a 'puffer' alchemist at the hearth.<sup>371</sup> Moreover, it has also been suggested that he represented himself as a peasant demon bearing clawed demon feet and gazing out to the viewer in one of his representations of *The Temptations of St. Anthony*.<sup>372</sup> Teniers also often used his wife, Anna Bruegel, as a model, representing her as a witch in *The Incantation Scene*.<sup>373</sup> Thus, rather than symbolising his esteem for the scholarly alchemist, it could be more indicative of his sense of humour akin to Steen representing himself as a character he mocks.<sup>374</sup>

Despite placing the traditional image of a scholar in a laboratory, Teniers maintains other traditional alchemical motifs. In his c. 1651-6 (fig. 19) representation of an alchemist, an elaborately robed alchemist reads at his desk, which contains the

---

<sup>369</sup> Westermann, 2001, pp. 31, 42.

<sup>370</sup> David Teniers the Younger, *The Alchemist* (1680, oil on panel, 24 x 19cm, Munich, Schleissheim Gallery), illustrated in Read, 1947, p. 69.

<sup>371</sup> Principe and DeWitt, 2002, p. 13.

<sup>372</sup> See for example David Teniers the Younger, *The Temptations of St. Anthony* (c. 1650, 54 x 76cm, oil on copper, Antwerp, Royal Museum of Fine Arts), illustrated in Davidson, 1979, p. 99.

<sup>373</sup> Davidson, 1979, p. 45. See also David Teniers the Younger, *Incantation Scene* (c. 1650, 36.8 x 50.8cm, oil on copper mounted on masonite, New York, New York Historical Society), illustrated in Davidson, 1979, p. 103.

<sup>374</sup> Kahr, 1993, p. 181. See for example Jan Steen, *The Dissolute Household* (1668, 76 x 82cm, oil on canvas, London, Wellington Museum), illustrated in Kahr, 1993, p. 182. In this painting Steen depicts himself with his leg on the knee of a lady sitting before him who offers him a glass to drink, with a pipe in his mouth, he stares wickedly in the direction of the viewer.

conventional scholarly objects of a large globe and other books and papers as well as motifs of *vanitas* - a human skull and an hourglass timer. The painting is framed by the Baroque device of a blue billowing dividing curtain,<sup>375</sup> which was a stylistic feature often used in the alchemist representations by Wijck. The laboratory assistants are depicted in the background in an adjacent room. This figure of a scholarly alchemist with his book has been directly copied from a figure in Archduke Leopold Wilhelm's collection, which can be identified from the painting of the *Archduke Leopold Wilhelm in his Gallery in Brussels*,<sup>376</sup> which he had painted almost three decades earlier.<sup>377</sup> Appropriating entire figures from other artists' works was not unknown to Teniers who was known to copy whole figures by Adriaen Brouwer.<sup>378</sup> Many of the Archduke's paintings were by Italian masters and of religious themes.<sup>379</sup> The painting has been identified as *Jesus and the Doctors of the Faith* (fig. 20) which illustrates the episode described in Luke 2.42-50. In this painting, a twelve year old Jesus stands before a group of doctors, one at a desk referencing a book. With finger pointed to the heavens, the young Jesus signals that he knows the answer to the question the doctors seek which serves to demonstrate the inferiority of human scholarship over divine inspiration.<sup>380</sup> The *vanitas* symbolism which has been adopted to its alchemical equivalent is similar to that represented in Tenier's paintings of *The Temptations of St. Anthony*, where instead of a crucifix a globe stands (fig. 27). Teniers often represented a vial of water in his still life that references his asceticism,

---

<sup>375</sup> Anne Hollander, *Seeing Through Clothes*, Berkeley: University of California Press, 1993, pp. 26, 31.

<sup>376</sup> David Teniers the Younger, *Archduke Leopold Wilhelm in his Gallery in Brussels* (c. 1651, oil on canvas, 123 x 163cm, Vienna, Kunsthistorisches Museum), illustrated in Margret Klinge, 'David Teniers and the Theatre of Painting' trans. Judith Hayward in Ernst Vegelin van Claerbergen (ed.), *David Teniers and the Theatre of Painting*, exh. cat., London: Courtland Institute of Art Gallery, 2006, p. 17.

<sup>377</sup> Klinge, 2006, pp. 24, 30.

<sup>378</sup> Davidson, 1979, p. 12.

<sup>379</sup> Klinge, 2006, pp. 24, 30.

<sup>380</sup> Schummer and Spector, 2007, p. 12.

as it was believed he only drank water and ate bread while living a chaste existence.<sup>381</sup> Yet, the vial placed on the alchemist's desk is a reddish-brown colour that resembles wine which was sometimes used in the medicinal application of alchemy.<sup>382</sup> The polarity in its representation could indicate the alchemist's false sense of elevation, particularly for those alchemists who sought alchemy in an attempt of spiritual elevation. Furthermore, it may symbolise the alchemist who has failed to overcome their desire of excess as Teniers frequently portrayed negative images of peasants drinking to excess in taverns as well as with devil claws trying to tempt St. Anthony into drinking.<sup>383</sup>

In an earlier representation of a scholarly alchemist, Teniers placed the figure in a much more elaborate laboratory, which could be representative of a workshop of a ruler.<sup>384</sup> As Teniers worked for royal patrons, it is possible that they invited him to view their laboratories.<sup>385</sup> In his painting dated to c.1645 (fig. 15), a series of furnaces and alembics are in the process of distilling in the background, which one of the assistants attends to with bellows. Instead of being represented at the hearth, the scholarly alchemist is reading at his desk in a distinguished fur-lined robe of a scholar. Sitting slightly apart from the practical work of alchemy in the foreground, the scholar is once again surrounded by *vanitas* symbols including a large globe, an

---

<sup>381</sup> Davidson, 1979, p. 36.

<sup>382</sup> Charles J. S. Thompson, *Quacks of Old London*, Whitefish, M.T.: Kessinger Publishing, 2003, p. 184.

<sup>383</sup> See for example David Teniers the Younger, *The Temptations of St. Anthony* (c.1638-1642, medium unknown, 63 x 50cm, Paris, Louvre), illustrated in Davidson, 1979, p. 93. St. Anthony is depicted being offered a glass by a peasant with demon claws.

<sup>384</sup> Davidson, 1979, p. 33.

<sup>385</sup> *Ibid.*, p. 5; Hill, 1975, p. 73; Principe and DeWitt, 2002, p. 13. From 1647 Teniers became court painter for Archduke Leopold Wilhelm in Brussels, Governor of the Southern Netherlands. He then later served for the court of Don Juan of Austria in Brussels. He was also in demand by several royal patrons.

hourglass timer and a money pouch with handle placed on the desk. He is also surrounded by books on the floor, which were also used as symbols of *vanitas*. The large horse skull perched up against the furnace that symbolised the sin of pride, could be referring to the false sense of grandeur of the alchemist which is further implied by his elaborate robes.<sup>386</sup> The elaborate purse with handle is also likely to be a moral comment on excess and the sin of greed, which is a theme the artist represented in *The Temptations of St. Anthony*, as signified by a peasant demon counting money (Fig. 27). As a result, the scholarly alchemist does not escape criticism by Teniers in this painting.

In this image, the trademark fish hanging from the ceiling is represented as a standard specimen of fish that resembles those which hang from his tavern depictions. The peasant woman who peers down from a window above is also a reoccurring motif in Teniers' tavern scenes, which was also frequently used in his alchemical laboratories. Teniers could be once again linking the tavern scenes, as mentioned in the previous chapter, to mock the seemingly dignified alchemist for his false sense of grandeur that could be further evidenced by the horse skull propped up beside him against the furnace. As this species of fish has been identified as *Cyclopterus lumpus*, or 'Lumpfish',<sup>387</sup> which are benthic (an organism that lived on or in the bottom of the sea or fresh water),<sup>388</sup> it could thus appear to be a satirical comment as the fish would be considered a 'bottom dweller' as were the 'low-life's' depicted in Teniers peasant scenes. Similar fish were also been depicted as demons in his representations of

---

<sup>386</sup> Dittrich, 1995, pp. 109-110.

<sup>387</sup> Davidson, 1987, p. 77.

<sup>388</sup> Gene S. Helfman et. al., *The Diversity of Fishes: Biology, Evolution, and Ecology*, Chichester, West Sussex: John Wiley and Sons, 2009, p. 300.

witches' and his series of *The Temptations of St. Anthony*.<sup>389</sup> Once again, Teniers could be making a connection between the practice of alchemy, which could possibly teeter on the lines of demonology in a similar way that the drinking and smoking of peasants which he also depicted amongst the demons in his representations of *The Temptations of St. Anthony* are of sinful behaviour.

Jane Davidson concluded in her biography of David Teniers the Younger that 'with the exceptions of a few satires the majority of David the Younger's alchemists may be considered simply as observations of one phase of seventeenth-century science'.<sup>390</sup> Davidson further concluded that the lizards hanging from Teniers' alchemist laboratory ceilings were realistic depictions of life as they were believed to be used in alchemical recipes and the preparation of medicine.<sup>391</sup> Although animal oils had been used in medicinal applications,<sup>392</sup> their use was not significant especially considering the prominent position that the animals are hung in Teniers' paintings and the impracticality they would serve hung from high ceilings left to dry. Paracelsus explicitly states that 'the matter of the philosophers is not to be sought in animals: this I announce to all'.<sup>393</sup> Salamanders also only appear to serve as a symbolic role to the alchemical process rather than an actual ingredient.<sup>394</sup> Furthermore, medicinal

---

<sup>389</sup> See for example David Teniers the Younger, *The Temptations of St. Anthony* (1610-1690, medium dimensions and location unknown), illustrated in Rosenberg, 1895, p. 24.

<sup>390</sup> Davidson, 1979, p. 39.

<sup>391</sup> Davidson, 1987, pp. 62, 75, 76.

<sup>392</sup> Ferchl and Süssenguth, 1939, p. 85.

<sup>393</sup> Paracelsus, 'The Aurora of the Philosophers' in *The Hermetic and Alchemical Writings of Paracelsus* (1493-1541), Sioux Falls, South Dakota: NuVision Publications, LLC, 2007, p. 41.

<sup>394</sup> See for example Guiley, 2006, p. 75; Greenberg, 2007, p. 72; Thompson, 2002, p. 127; Paracelsus, 'The Book Concerning The Tincture of The Philosophers' in *The Hermetic and Alchemical Writings of Paracelsus* (1493-1541), Sioux Falls, South Dakota: NuVision Publications, LLC, 2007, p. 6; John Edward Mercer, *Alchemy: Its Science and Romance*, Whitefish, M.T.: Kessinger Publishing, 2003, p. 173.

remedies were more typically distilled from herbs or metals.<sup>395</sup> Mercury, salt and sulphur were frequently cited as the main ingredient in making the Elixir, which also formed the basis of Paracelsus' medical application of alchemy.<sup>396</sup> Furthermore, as Davidson suggests, that these lizards could signify dragons as they are mentioned in alchemical treatises.<sup>397</sup> However, references to the use of dragon's blood are in reference to the blood red mercury, cinnabar.<sup>398</sup> Davidson further fails to sufficiently explain why Teniers chose to represent a fish instead of a lizard in other alchemical representations. The use of animals as an ingredient in the alchemical process does not explain Teniers depictions of fish hung from the ceilings of Tavern interiors, nor does Davidson's interpretation rule out a symbolic or double meaning. Although Davidson acknowledges Teniers portrayal of lizards in his *Temptations of St. Anthony* series,<sup>399</sup> she fails to explain why Teniers would choose to represent the lizard as two contradictory symbols; one as a mythological demon while the other as a symbol of early scientific investigation. However, a more thorough study of symbolism used by Teniers and reoccurring motifs that appear in his body of works of art as a whole says more about morality and Netherlandish society far beyond current interpretations of his alchemical paintings. Teniers is known for his highly moralising religious themes depicted in genre settings in order to be more readily relatable to the public. It appears that his representations of alchemists has been the subject of the same treatment and thus shows his influence of Counter-Reformation aesthetics associated with Italian High Baroque.<sup>400</sup> As a result, it is more likely the case that the hanging fish and

---

<sup>395</sup> Bayer, 2007, pp. 366-7, 380; Principe and DeWitt, 2002, p. 4; Hugh D. Crone, *Paracelsus: The Man Who Defied Medicine; His Real Contribution to Medicine*, Melbourne: Albarello Press, 2004, p. 161.

<sup>396</sup> Ferchl and Süssenguth, 1939, p. 113; Guiley, 2006, pp. 9, 89, 285, 318; Smith, 2004, p. 161. Bacon, 2004, p. ii. Roger Bacon only mentions using minerals and metals in alchemy.

<sup>397</sup> Davidson, 1987, p. 76.

<sup>398</sup> Rulandus, 1992, p. 102.

<sup>399</sup> Davidson, 1987, p. 75.

<sup>400</sup> Davidson, 1979, p. 52.

reptiles by Teniers served as a symbolic and moralising motif which connects his representations of alchemists to his satirical and moralising images of peasants and physicians as well as to demonology as represented in his themes depicting witches and *The Temptations of St. Anthony*.

David Ryckaert III (1616-1661) who also derived from Antwerp,<sup>401</sup> was strongly influenced by David Teniers the Younger.<sup>402</sup> Ryckaert painted a large number of works of art on the same themes as Teniers, producing several representations of alchemists as well as several versions of the *Temptations of St. Anthony*, similarly surrounded by demonic lizards and flying fish.<sup>403</sup> Like Teniers, he also specialised in ‘low-life’ genre scenes, producing a number of representations of alchemists in a similar vein as his cobblers or blacksmiths. In doing so, Ryckaert reinforced the ‘puffer’ alchemist’s lowly status associated with the labouring classes where his representations of cobblers and blacksmiths were often associated with the vice of slothfulness and drunkenness.<sup>404</sup> However, in a 1634 painting, Ryckaert produced a representation of a scholarly alchemist (fig. 22), where the only indication that it is a representation of an alchemist is the presence of the glass alembic, which lies on a

---

<sup>401</sup> Haute, 1999, p.13.

<sup>402</sup> Davidson, 1979, p. 60.

<sup>403</sup> See for example David Ryckaert III, *The Temptations of St. Anthony* (1645, oil on panel, 63.5 x 50.5cm, Lisbon, Museum Nacional de Arte Antiga), illustrated in Haute, 1999, p. 321.

<sup>404</sup> Haute, 2008, p. 5. See for example David Ryckaert III, *The Cobbler* (c. 1638, oil on panel, 57 x 81cm, location unknown), illustrated in Haute, 2008, p. 5. In this representation of a cobbler, a group of men are depicted in the background reminiscent of a tavern scene. A woman beside him holds onto a large mug as if to offer him a drink. Behind the cobbler, an owl symbolising folly sits above him. A group of pigs in the far right foreground further refers to the social decay of the scene. Also see David Ryckaert III, *The Alchemist* (c.1642, oil on canvas, 60.5 x 80.5cm, Budapest, Szépművészeti Múzeum), illustrated in Haute, 1999, p. 313. An alchemist reminiscent of a cobbler sits at his desk flicking through the pages of his book. A small owl is depicted underneath the desk alluding to the folly of the alchemist’s quest.



pile of books on his desk.<sup>405</sup> The presence of an écorché, or flayed sculpture revealing a man's muscles,<sup>406</sup> in addition to the alchemist's activity of reading an anatomy book indicates that this alchemist is interested in the medical applications of alchemy. The vial containing red liquid could be that of wine which had been used for medicinal preparations.<sup>407</sup> The anatomy book also serves to support the symbols of *vanitas* placed on the desk such as the human skull, hourglass timer and a pipe slightly obscured from view within the folded up papers. Anatomy books in early modern Europe often presented cadavers as living, contemplating their own mortality, inscribed with mottos such as *Inevitable fatum* (inevitable fate).<sup>408</sup> The alchemist is represented gazing out directly at the viewer making the contents of the book visible as if to serve a moralising message to its audience. The pipe and wine could further symbolise excess and temptation of sin of the alchemist as Teniers previously represented.<sup>409</sup> A sketch pinned to the wall, slightly obscured by a book resembles a study of a horse by Leonardo Da Vinci (1452-1519).<sup>410</sup> Around the same time Da Vinci was making studies of horses, he was making studies of human figures. He is known to have sketched around thirty cadavers he had dissected which resulted in Pope Leo X banning him from the mortuary in Rome. This consequently ended his career in anatomy at a time when dissection of humans was frowned upon by the Catholic Church which traditionally believed scripture and divine revelation was the

---

<sup>405</sup> A similar representation of an alchemist is seen in David Ryckaert III, *An Alchemist Studying at Night* (1648, oil on canvas, 51 x 74.5cm, Milwaukee, Collection of Drs. Alfred and Isabel Bader), illustrated in Corbett, 2006, p. 261.

<sup>406</sup> Ibid.

<sup>407</sup> Thompson, 2003, p. 184; Ferchl and Süssenguth, 1939, p. 83.

<sup>408</sup> Julie V. Hansen and Suzanne Porter, *The Physician's Art: Representations of Art and Medicine*, Durham: Duke University Medical Center Library, Duke University Museum of Art, 1999, p. 42.

<sup>409</sup> Davidson, 1979, p. 38.

<sup>410</sup> See for example Leonardo Da Vinci, *Sketches of Galloping Horsemen and Other Figures* (c. 1503-1504, red chalk, 16.8 x 24cm, Windsor, Windsor Castle), illustrated in Frank Zöllner, *Leonardo Da Vinci, 1452-1519*, Köln: Taschen, 2000, p. 75.

supreme source of knowledge.<sup>411</sup> The écorché and anatomy book makes the reference to Da Vinci and his scientific studies likely. In this image, however, the skull on the wall is too small to symbolise that of a horse. Alternatively, it could serve as a reminder of the inevitability of death. References to the medicinal application of alchemy relate back to the pursuit of finding the elixir to life - to perfect imperfect bodies and to extend human life.<sup>412</sup> Its moralising *vanitas* symbolism therefore is referring to the futility in attempting to cheat death and usurp God. As a result, Ryckaert follows in the footsteps of Teniers, in reflecting Counter-Reformation aesthetics in providing a commentary on the proper relationship with God and the natural world and the futility in human knowledge.<sup>413</sup>

This theory is further supported by Ryckaert's painting entitled *Scholar with Homunculus in Glass Phial* (fig. 23), which is a similar depiction of a scholar at his desk littered with *vanitas* symbols of a candle, human skull and a tipped over ceramic pot as well as symbols of scholarship such as a globe, books and scrolls. Together they symbolise the futility in human scholarship.<sup>414</sup> However, a unique addition to this representation is that in the hands of the scholar in traditional fur-lined coat who holds up a vial with an apparition of a humanoid figure with arms extended in the direction of the clearly shocked scholar and a distraught woman beside him with arms clasped tightly. This image is reminiscent of the practice of uroscopy, with a physician inspecting the urine of his patient as a scholar inspecting a vial with a concerned

---

<sup>411</sup> Ibid.; Brian J. Ford, *Images of Science: A History of Scientific Illustration*, London: British Library, 1992, pp. 35, 37; David C. Lindberg, 'Science and the Early Church' in David C. Lindberg and Ronald L. Numbers (eds), *God and Nature: Historical Essays on the Encounter Between Christianity and Science*, Berkeley: University of California Press, 1986, p. 19.

<sup>412</sup> Fanning, 2009, p. 2; Bacon, 2004, p. i.

<sup>413</sup> Davidson, 1979, pp. 42-3.

<sup>414</sup> Schneider, 2003, p. 80; Hall, 1994, p. 210.

woman by his side was its traditional representation in seventeenth-century Netherlandish genre painting.<sup>415</sup> The title alternatively alludes to the alchemist's boldest vision of the creation of artificial life as purported by Paracelsus, which is represented as a miniature human in a glass vial as illustrated in Ryckaert's painting.<sup>416</sup> Although this painting obviously plays on these ideas, given that the apparition of a human figure appears to be a skeleton as a symbol of death (fig. 24), coupled with the despairing woman and *vanitas* symbolism, the painting alludes to the futility of scholarship concerned with the endeavour of the creation and prolonging of human life as illustrated in Ryckaert's painting of an alchemist as just previously discussed. Therefore, the skeleton appears to symbolise death and the futility in scholarship devoted in seeking to prolong life. A small child barely discernable in the far bottom-right corner in the dim lit room is blowing a goat's bladder further symbolising the futility of the scholar's quest.<sup>417</sup> This painting again, thus serves as a warning of the proper relationship between God and the natural world.

Another representation that covers similar themes is by Adriaen Jacobsz Matham (c. 1600-1660) (fig. 30) which is believed to be inspired by the Doctor Faust legend.<sup>418</sup> In the Germanic legend, Doctor Faust makes a deal with the devil in exchange of unlimited knowledge and worldly possessions.<sup>419</sup> The alchemist is represented wearing the attire of a traditional scholar with his spectacles in hand from reading a book before him. However, he has been disturbed by a demon and a nude female figure. On the shelf are containers labelled dragon's blood (*sanguis draconis*)

---

<sup>415</sup> Türk, 2005, p. 18.

<sup>416</sup> Cheshire, 2004, p. 185.

<sup>417</sup> Haute, 1999, p. 109.

<sup>418</sup> Read, 1947, p. 72.

<sup>419</sup> Christopher Marlowe, *Doctor Faustus*, Act 1, Scene 1, lines 80-95; Act 1, Scene 3, lines 85-100.

and *opium*, which has been linked to dealings in the black arts.<sup>420</sup> However, as previously mentioned, dragon's blood refers to the red mercury sulphide, cinnabar, while opium was used in the medicinal application of alchemy.<sup>421</sup> Other objects hang on the wall to the alchemist's left, one appearing to be a chicken's foot that could alternatively symbolise dealings in black magic as animal parts were not typically used throughout the alchemical process. As discussed in Chapter 3, the owl nestled in a nook behind the scholar was typically used as a symbol of folly in seventeenth-century Netherlandish art. However, it has also been associated with the Devil. The bat flying behind the scholar, beside the owl, has also been associated with the Devil.<sup>422</sup> The use of the owl as a symbol of evil was related to several Netherlandish proverbs, which referred to the bird's preference for the dark. Owls were also associated with the several deadly sins of pride, envy as well as greed.<sup>423</sup> All of these meanings could be applicable to this etching. The horse skull hanging on the back wall is also utilised as a symbol for the sin of pride.<sup>424</sup> Typical scholarly iconography is used to indicate the symbols of *vanitas* with the human skull and hourglass timer on the shelf to the left of the alchemist. The two extinguished candles indicative of the empty candle holders on the desk could also symbolise that the end of the alchemist's life is near.<sup>425</sup> The symbols of *vanitas* strongly correlate with the Doctor Faust moralising legend in acquiring knowledge beyond the human realm. In addition, the symbolism portrayed in the etching is further reminiscent of the depictions of Teniers' *The Temptations of St. Anthony* who was typically surrounded by demons and animals

---

<sup>420</sup> Read, 1947, p. 72.

<sup>421</sup> Rulandus, 1992, p. 102; Oswald Croll, *Philosophy Reformed and Improved in Four Profound Tractates: The I. Discovering the Great and Deep Mysteries of Nature* (1560-1608), Cornhill: M.S. for Lodowick Lloyd, 1657, p. 100. Sixteenth-century medical physician and alchemist, Oswald Croll mentions the use of opium and states 'in Opium there is a [s]weet Narcotick Sulphur.'

<sup>422</sup> Davidson, 1979, p. 38.

<sup>423</sup> *Ibid.*, p. 41.

<sup>424</sup> Dittrich, 1995, pp. 109-110.

<sup>425</sup> Schneider, 2003, p. 86.

associated with the Devil, as well as lustful naked woman, reminiscent of the succubus disguised as a prostitute.<sup>426</sup> Yet, the elaborate fur coat and unusual collection of items distinguishes the scholar from the monk who abstained from earthly possessions and pursuits, thus illustrating that the alchemist has given into temptation. In actuality, the Doctor Faust legend refers to a historical figure who was born between 1478-80, who discarded the Bible after obtaining his degree in Theology in pursuit of secular knowledge, one including alchemy, and became a physician.<sup>427</sup> The demonization of alchemists appears to be a common thread that links many images of the alchemist during seventeenth-century Netherlandish art. It also recalls the Fall of Adam after eating from the tree of knowledge upon giving into temptation, which as seen in the previous chapter was symbolised by a monkey (fig. 14) (fig. 18). This image of a scholarly alchemist further refers to the Christian tradition of emphasising humanity's place below God.<sup>428</sup>

This theme is further explored by Egbert van Heemskerck I (1634-1704) who represents an alchemist writing at a lectern in *An Alchemist in his Study* (fig. 31). The attire of the alchemist, who wears a turban, gives the impression that this is a middle-eastern representation of a scholarly alchemist who were known for passing their great wealth of alchemical knowledge to the western world.<sup>429</sup> The minimalist print behind the alchemist in the window further adds to the impression of his eastern origins as well as the woven birdcage which stands in contrast to the commonly depicted birdcages in Wijck's representations of alchemists (fig. 16) (fig. 17). The

---

<sup>426</sup> Davidson, 1979, p. 36.

<sup>427</sup> Helen Watanabe-O'Kelly, 'Saxony, Alchemy and Dr Faustus' in Alexandra Lember (ed.), *The Golden Egg: Alchemy in Art and Literature*, Glienicke, Berlin: Galda and Wilch, 2002, pp. 32-33.

<sup>428</sup> Fanning, 2009, pp. 5-6.

<sup>429</sup> Taylor, 1974, p. 88.

artist also appears to create an interior space that combines a laboratory with a study as was the case with Teniers' representations of scholars. A globe rests on an overturned crate beside the lectern while pots replace books and papers which are more commonly represented covering the scholarly alchemist's desk. There are no traditional *vanitas* still-life displays. Two pipes are depicted but are unlikely to represent *vanitas* as they are shown in isolation. As a laboratory assistant with beady eyes attends to a hearth with a pipe in his mouth, the other pipes are more likely associated with deviant behaviour which was frequently represented as a symbol of excess within seventeenth-century Netherlandish art. On the chimney above the assistant appears to be a sketch of a portrait of a peasant reminiscent of Teniers. As described in the previous chapter, it appears to be the reoccurring motif of the peasant portrait that was used to highlight the false sense of grandeur of the alchemist which lies in contrast to the grand portraits depicted in Wijck's alchemical representations. One unique and unusual element depicted in Heemskerck's representation of an alchemist is the sword which hangs down from the ceiling. The symbol of power could highlight the false sense of grandeur of the alchemist and of excess when read in combination with the surrounding motifs of pipes and the sketch of the peasant.<sup>430</sup> This interpretation is further supported if the sword serves as a symbol of *vanitas*, signalling there is no protection against death.<sup>431</sup> Above the assistant, barely visible in the dark corner of the laboratory hang two menacing looking fish from the ceiling and a hybrid creature which appears to be a cross between an owl and a frog. Flying fish,

---

<sup>430</sup> Hall, 1994, p. 87.

<sup>431</sup> Ibid., p. 210. See for example, Harmen Steenwijck, *Vanitas: Still-Life* (c. 1589 - 1662, oil on panel, 37.7 x 38cm, Leiden, Stichting Nederlands Kunstbezit), illustrated in Seymour Slive, 'Realism and Symbolism in Seventeenth-Century Dutch Painting', *Daedalus*, 91, no. 3, 1962, p. 487. A sword is depicted amongst a collection of objects signifying *vanitas*. This includes a human skull, a candle, pipes, shell, a tipped glass and books.

owls and frogs were all animals associated with the Devil.<sup>432</sup> The hanging of the fish resembles the flying fish known as Serras, which were commonly depicted in Teniers' representations of *The Temptations of St. Anthony* and of witches.<sup>433</sup> These menacing looking creatures hung in the far right dark corner above the alchemical assistant further support the idea that the hanging lizards and fish in Teniers alchemical paintings were symbolic of demons and the practice of demonology. The hanging sword thus could reference the proverb 'he could go to Hell with sword in hand',<sup>434</sup> further illustrating alchemist's reputation of practicing demonology. The middle-eastern appearance of the alchemist could further provide a comment on the Church's view of the Arab derived 'science' as dangerous and heretical.<sup>435</sup>

In *An Alchemist and His Assistant in a Workshop*, dated c.1655, (fig. 12) by Frans van Mieris the Elder (1635-1681) the practice of alchemy appears to be represented with no negative undertones. The alchemist leans over a cauldron in which his assistant is fanning the flames in a modest and sparingly endowed laboratory.<sup>436</sup> The painting differs from many other Netherlandish images of the time as it is devoid of the usual clutter, signs of poverty or scholarly symbols of *vanitas*.<sup>437</sup> Both the alchemist and the assistant are well dressed with white-collar ruffles indicating that these individuals are financially well endowed. The alchemist also wears a scholar's beret. As was common in representations of the scholarly alchemist, the assistant fans the flames with the bellows, while the alchemist peers closely into

---

<sup>432</sup> Davidson, 1979, p. 38.

<sup>433</sup> Ibid., p. 44.

<sup>434</sup> Haute, 1999, p. 146.

<sup>435</sup> Roslynn D. Haynes, *From Faust to Strangelove: Representations of the Scientist in Western Literature*, Baltimore: John Hopkins University Press, 1994, p. 4.

<sup>436</sup> Buvelot, 2005a, pp. 85-7.

<sup>437</sup> Corbett, 2006, p. 256.

the cauldron at a distance holding onto his spectacles as if witnessing an important part of the alchemical process. This further highlights his relatively comfortable standing as opposed to many of the alchemists represented in the previous chapter as alchemist-scholars were able to hire assistants. The sparsely endowed and clean laboratory is also reminiscent of representations of the interiors of the Dutch upper classes. In addition, this painting is unique in that the alchemist is not depicted at his desk, nevertheless, his attire and his assistant places his role squarely as a scholarly alchemist.<sup>438</sup> It has been noted that given the negative reception alchemy had received particularly in the visual arts during the seventeenth century that it could be a representation of poor teaching, where the young assistant is pulled into the older alchemist's fruitless quest.<sup>439</sup> The use of the bellows to fan the flames could have been enough to interpret the painting as a fruitless occupation during the time as 'puffers',<sup>440</sup> those who were merely interested in the mechanical operation of metallic transmutation, were regarded with disdain.<sup>441</sup> The less obvious didactic motifs could have been eschewed, as the audience would have been familiar with the traditional conventions of the representation of the alchemist.<sup>442</sup> However, given the originality in this painting, this interpretation of a negative moralising portrayal of an alchemist seems unlikely.

---

<sup>438</sup> Eddy de Jongh, "Frans van Mieris: Questions of Understanding" in Quentin Buvelot (ed.), *Frans van Mieris 1635-1681*, The Hague: Royal Picture Gallery Mauritshuis; Washington: National Gallery of Art; Zwolle: Waanders, 2005a, p. 46.

<sup>439</sup> Buvelot, 2005a, p. 87; Otto Naumann, *Frans Van Mieris (1635-1681) The Elder*, vol. 1, Doornspijk, The Netherlands: Davaco, 1981, p. 97.

<sup>440</sup> *Ibid.*, p. 98.

<sup>441</sup> Klossowski de Rola, 1973, p. 12.

<sup>442</sup> Corbett, 2004a, pp. 248-9.



It is difficult to determine who the intended audience for this painting was as most of these paintings were sold on the open market.<sup>443</sup> As van Mieris belonged to the Dutch *fijnschilders* whose use of fine brushstrokes became known for their refined and precise paintings with almost invisible application of paint,<sup>444</sup> the time involved to undertake such works of art made it more likely that this painting was commissioned by a patron.<sup>445</sup> Franciscus de le Boë Sylvius (1614-1672), a Calvinist Professor of Medicine and iatrochemist, who was credited for establishing the first chemical laboratory at Leiden University in 1669, was a frequent patron of van Mieris who would have been receptive to the neutral and modest portrayal of the alchemist.<sup>446</sup> Although there is no evidence that Sylvius commissioned this specific painting, he had the first right of refusal of van Mieris' paintings.<sup>447</sup> In this case it is possible that van Mieris left out the often didactic symbolism utilised in the portrayals of alchemists of his contemporaries to please his patron's sympathetic view of alchemy. It is not possible that the alchemist was a portrait of de le Boe Sylvius as van Mieris painted his portrait, which shows him to be much younger than the aging alchemist painted ten years earlier.<sup>448</sup> Alternatively, with his curly red hair, the assistant

---

<sup>443</sup> Alpers, 1983, p. 1.

<sup>444</sup> Quentin Buvelot, 'Frans van Mieris' Reputation' in Quentin Buvelot (ed.), *Frans van Mieris 1635-1681*, The Hague: Royal Picture Gallery Mauritshuis; Washington: National Gallery of Art; Zwolle: Waanders, , 2005b, pp. 12, 13, 14.

<sup>445</sup> Corbett, 2004a, p. 103.

<sup>446</sup> Buvelot, 2005b, p. 16; Corbett, 2006, p. 260; Sluijter, 2001, pp. 106-7, 109, 111. It was known, however, that Sylvius owned Brouwer's *Quack Doctor* which could illustrate his sense of humour or distancing himself away from those who took advantage of people in need. Alternatively, Sylvius was known to have treated patients regardless of whether they could pay. See for example Adriaen Brouwer, *Quack Doctor and His Audience* (c. 1625, oil on panel, 45 x 61.8cm, Karlsruhe, Staaliche Kunsthalle), illustrated in Sluijter, 2001, p. 107. Sylvius also owned paintings by Thomas Wijck.

<sup>447</sup> Westermann, 2005, p. 39; Corbett, 2004a, p. 103.

<sup>448</sup> See for example Frans van Mieris the Elder, *Portrait of Franciscus de le Boe Sylvius* (1665, oil on panel, 18.8 x 14.2cm, New York, Private Collection), illustrated in Otto Naumann, 'Frans van Mieris' Personal Style' in Quentin Buvelot (ed.), *Frans van Mieris 1635-1681*, exh. cat., The Hague: Royal Picture Gallery Mauritshuis; Washington: National Gallery of Art; Zwolle: Waanders, 2005a, p. 40.

resembles the artist himself.<sup>449</sup> It is also possible that van Mieris allowed for a double reading of his work to allow the audience to deduce what they wanted to see.<sup>450</sup>

Another Leiden born artist, Jacob van Toorenvliet (c.1635-1719) presents an alchemist instructing his apprentice in his painting entitled *An Alchemist with his Apprentice in his Studio* (fig. 21). The artist who also held common affiliations with van Mieris as they both shared the same instructor, his father - Abraham Toorenvliet (1620-1692),<sup>451</sup> once again produced a painting with no discernable negative didactic message or a representation of poor teaching as it is one of the most respectful representations of an alchemist. This is indicated by the classical sense of opulence with its large central pillar, folded drapery in the top corner framing the painting, large écorché reminiscent of a classical sculpture and robed attire of the alchemist, which was likely to have been inspired from his few years living in Venice (1670-73).<sup>452</sup> The large plate clock which hangs on the pillar replaces the hourglass timer, indicative of the alchemist's elevated social standing in comparison to other representations of his peers.<sup>453</sup> The presence of an écorché also suggests an interest in iatrochemistry and thus, coupled with the painting's theme of instruction, indicates an influence from the existence of the chemical laboratory at Leiden University in the small, yet prestigious university town.<sup>454</sup>

---

<sup>449</sup> See for example Frans van Mieris the Elder, *Self-Portrait as a Painter* (1667, oil on panel, 17.7 x 13.3cm, Polesden Lacey, The McEwan Collection), illustrated in Smith, 2004, p. 152.

<sup>450</sup> de Jongh, 2005, p. 51.

<sup>451</sup> Marian Bisanz-Prakken (ed.), *Rembrandt and His Time: Masterworks from the Albertina, Vienna*, exh. cat., New York: Hudson Hills, 2005, p. 138.

<sup>452</sup> Ibid.

<sup>453</sup> Corbett, 2006, pp. 261-3; Corbett, 2004a, p. 107.

<sup>454</sup> Jacob van Toorenvliet, *Alchemist with Assistant* (1600s, oil on canvas, 50 x 42cm, private collection), illustrated in Corbett, 2004a, p. 332. *Alchemist with Assistant* is another painting by Toorenvliet produced where the central subject is based on instruction where there is again no discernable negative undertones as the alchemist represented points to a crucible to his young assistant.

While symbols of *vanitas* served as a warning against the folly of obtaining earthly possessions, they also served as a warning against the folly of pursuing certain kinds of knowledge which delved into the realm of God, as illustrated by the many representations of scholarly alchemists showing them reading the multitude of other alchemical treatises published.<sup>455</sup> The images of alchemists by Teniers and Ryckaert in particular served as a warning against the futility in pursuing the elixir of life in face of the inevitability of death and the limitations of human knowledge in learning the secrets of nature which were reserved for the divine.<sup>456</sup> In this regard, many of the images of scholarly alchemists also illustrated the false sense of grandeur epitomised by the c.1645 image of the alchemist by Teniers (fig. 15) whose large laboratory possibly served to represent alchemists who worked for rulers to help extend their life in the pursuit of the Elixir.<sup>457</sup> These images of scholarly alchemists follow in the lessons taught by St. Jerome, whose image provided inspiration in this sub-genre, that vice must be shown in order not to repeat it.<sup>458</sup> The saint's image that illustrated the successful pursuit of scholarship in service to God, was in many cases adopted to illustrate scholarship which was unsuccessful as it infringed on man's proper place with God. These themes help support the idea that the hanging animals were utilised to symbolise demons and the practice of demonology in the alchemist's pursuit of treading past man's natural boundaries of life on earth which is more explicitly illustrated in Matham's *Temptress Woman, Devil, Alchemist* (fig. 30).

---

<sup>455</sup> Davidson, 1979, p. 40.

<sup>456</sup> Tambiah, 1990, pp. 19-20.

<sup>457</sup> Wilford, 2006, p. 2.

<sup>458</sup> Gibson, 2006, p. 56.

In this way, it makes sense that the most respected representations of alchemists were derived from the Calvinist city of Leiden,<sup>459</sup> which was renowned for the region's most oldest and distinguished University and respected iatrochemistry medical department.<sup>460</sup> It also reflects the higher importance placed on book learning by the Reformed Church as Luther and Calvin argued for faith based on a close understanding of scripture while the Catholic Church wanted to restrict access through mediation.<sup>461</sup> Many paintings that derive from Leiden show positive representations of people reading or with books.<sup>462</sup> Impartial representations by artists from Leiden, and Thomas Wijck, who travelled to Italy and England, also became popular because of the strong activities in alchemy and science. Wijck's popularity in England could be testament to his more impartial representation due to the countries rich history in alchemy and scientific development which spawned the likes of Isaac Newton, Robert Boyle and Roger Bacon.<sup>463</sup>

The prevalence of the representation of the scholarly alchemist not only reflects the sophisticated discourse on alchemy and interest by the public, it reflects a distinctive shift in its market appeal. John Maitland, Duke of Lauderdale (1616-1682), purchased a number of Wijck's paintings, including one of an alchemist.<sup>464</sup> Teniers' relatively highly priced paintings in the manner of Italian masters such as his *Alchemist in his Studio*, would have been directed to a more affluent clientele.<sup>465</sup>

Archduke Leopold Wilhelm, who was typically more interested in courtly taste of

---

<sup>459</sup> Sterling, 1981, p. 72.

<sup>460</sup> Buvelot, 2005b, p. 16; Corbett, 2006, p. 260; Brown, 1999, pp. 12-3.

<sup>461</sup> Westermann, 2005, p. 47; Buvelot, 2005b, p. 14. Van Mieris belonged to the Protestant, Remonstrant Church.

<sup>462</sup> Ibid., p. 52.

<sup>463</sup> Corbett, 2004a, p. 92.

<sup>464</sup> Ibid., p. 93.

<sup>465</sup> Vlieghe, 2011, p. 94.

Italian masters than of genre subjects,<sup>466</sup> owned an almost identical representation of the alchemist as discussed in this chapter by Ryckaert.<sup>467</sup> Furthermore, Van Mieris received one of the highest prices for his paintings in seventeenth-century Netherlands whose clientele were more likely to serve the wealthiest in Netherlandish society,<sup>468</sup> including the famous iatrochemist. As a result, representations of the scholarly alchemist reflect a higher class as well as a more highly cultured and educated audience to its peasant-alchemist counterpart.

---

<sup>466</sup> Hill, 1975, p. 106; Klinge, 2006, p. 19. This is further evidenced by the catalogue of the Archduke's collection, *Theatrum Pictorium*, where Teniers reproduced his entire collection.

<sup>467</sup> See for example, David Ryckaert III, *An Alchemist Studying at Night* (1648, oil on canvas, dimensions unknown, Milwaukee, collection of Drs. Alfred and Isabel Bader), illustrated in Haute, 1999, p. 110.

<sup>468</sup> Westermann, 2005, p. 80. Sluijter, 2001, p. 107. Some of the Van Mieris' paintings owned by Sylvius were worth as much as a craftsman might pay for a house.

## 5 CONCLUSION

Representations of the alchemist in seventeenth-century Netherlandish art to a large extent reflect the collective socio-cultural fears that accompanied this dynamic and transformative period of early Modern Europe. In this way, the varied prints and paintings discussed in the preceding chapters reveal a sense of ambivalence that was also expressed in representations of contemporary medical practices whose foundation was laid in the Paracelsusian application of alchemy in medicine. This apprehension is illustrated by the commonality between the representations of figures in the medical professions such as physicians, dentists and barber-surgeons who were often the subject of similar satirical and didactic treatment as the representation of the alchemist. The practice of alchemy was commonly linked with medicine, which was illustrated by the use of similar iconography, such as distilling apparatus or an assistant fanning the flames of a crucible in such representations. Images of the medical professions and alchemy also possessed the shared motif of the hanging fish or reptile, which originated with David Teniers the Younger and adopted by subsequent artists, resulting in these joint themes being linked to demonology. Despite sufficient evidence to suggest that the animals hanging from the ceilings in Teniers laboratories were symbolic of demonology and of sinful pursuits, the reason for this distinctive placement is still unclear and requires further investigation.

The apprehension of alchemy illustrated in seventeenth-century Netherlandish art, society and culture was further based on religious convictions based on the notions of the proper realm of the divine and that of humanity. Not only were alchemists

attempting to ‘perfect’ the imperfect in God’s creation of base metals, they were also attempting to perfect the human body and cheat death in attempting to prolong life in the medical application of alchemy. Spiritual alchemy further challenged this division as man attempted to be one with God and thus become divine. Therefore, alchemists were perceived by the public as infringing on the realm of God. While the northern Netherlands had evolved into a Protestant Republic during the seventeenth century, many of the artists who represented the alchemist were Catholic, reflecting their deep sense of maintaining their traditional hierarchical relationship with God. It is therefore not surprising that the most critical representations of the alchemist were by Catholic artists such as David Teniers the Younger and David Ryckaert III.<sup>469</sup>

Notions of perfecting gold and human flesh touch on ideas of evolution versus creationism. The transformative nature of seventeenth-century Netherlandish society and culture within the rapidly burgeoning Scientific Revolution meant that the practice and ideas of alchemy were accepted with elements of resistance, with some practices literally demonised in both textual and visual sources. This is not surprising in light of the fact that large-scale cultural change tends to be difficult in transitional periods of history. Alchemy challenged the Christian notion that the Earth was created in several days and all was designed as stated in Genesis. Alchemy based its premise on the idea that metals transform, evolve and perfect over time in nature as alchemists

---

<sup>469</sup> Principe and DeWitt, 2002, p. 19; Pieter Biesboer and Carol Togneri, *Collections of Paintings in Haarlem, 1572-1745*, Los Angeles: Getty Publications, 2001, p. 270. Bega and Steen derived from a Catholic family. Jakob Rosenberg, Seymour Slive and E. H. ter Kuile (eds), *Dutch Art and Architecture, 1600-1800*, third ed., New Haven: Yale University Press, 1977, p. 113. Van Ostade converted to Catholicism. Davidson, 1979, pp. 42-3. Haute, 1999, p. 13; Bruneel, 2006, p. 233. Both Teniers and Ryckaert were Catholic and derived from the Catholic Southern Netherlands which was intolerant to religious pluralism. Schama, 1979, p. 109. Adriaen van de Venne was Protestant but was described as an intensively pious Calvinist. He also painted religious themes. See for example Adriaen van de Venne, *Christ Carrying the Cross* (1600s, oil on canvas, 67 x 80cm, Gemaldegalerie, Dessau), illustrated in Sluijter, 2001, p. 120.

saw evidence of nobler metals mixed in base metals, a process which they attempted to replicate and accelerate. The representations of the alchemist in seventeenth-century Netherlandish art served as a vehicle for conveying moralising, didactic messages about a contested practice that divided the seventeenth-century Dutch community. In this way, it is incorrect to regard representations of alchemists as a form of genre painting, which are viewed by some scholars as a category specifically reserved for realist scenes negating underlying moralising or religious themes.<sup>470</sup> Representations of alchemists utilised pictorial aspects of peasant scenes within genre paintings as a form of social commentary on the questionable, yet appealingly mysterious practice of alchemy.

As a result, many representations of the alchemist were designed to reinforce negative ideas about the people and practice of alchemy in order to counteract the challenge they posed to the maintenance of religious orthodoxy. Given the popularity of representations of alchemy amongst the buying public, the general populace would have shared such negative mistrust of the alchemist and thus served to reinforce and confirm their ideals. From a more neutral perspective, it can also be imagined that the extreme pictorial detail that were typically rendered in spaces for alchemy invited and rewarded the close examination by the viewer. Yet, as previously mentioned, not all representations of the alchemist were negative, however, which is reflected in the neutral to positive representations of an alchemist by Leiden artists, Frans van Mieris the Elder and Jacob van Toorenvliet who represented the dignified representation of a scholarly alchemist. The more positive representation of the alchemist by these artists was in part reflective of their closer connections to the scientific community. The

---

<sup>470</sup> Kahr, 1993, p. 170.



Leiden artists were more likely to have been influenced by the establishment of the first laboratory in Leiden University whose foundations laid in the medical application of alchemy, iatrochemistry. As mentioned, its founder, Franciscus de le Boë Sylvius, was an important patron of van Mieris.

Furthermore, the representation of the alchemist also reflected a rising class-consciousness in the Netherlands that was especially due to the increasingly powerful presence of the middle classes. The satirical and didactic representations of the peasant alchemist are perfect examples of this. The middle-class desire to elevate their social status was highlighted by their insistence of separating themselves from the foolishness of the peasantry. This was often encapsulated by the representation of the peasant ‘puffer’ and their mindless puffing on the bellows to fan the flames in the hopes of transmuting base metals into gold while his family is left often neglected and left in desperate poverty. David Teniers the Younger took this a step further by linking the representation of the alchemist with similar iconography and style depicted in his representations of drunken and foolish peasants in tavern scenes.

Yet, beside this critique, alchemy also represented the simultaneous ideal of the pursuit of higher learning in teaching and knowledge. The scholarly alchemist is more reflective of the tastes of the wealthier cultural and intellectual elite that were more concerned by higher considerations of mortality and pursuing certain kinds of knowledge marked by religious and spiritual considerations. Yet, even the wealthier, scholarly representations of the alchemist were not without criticism, but were largely reframed from the same satirical treatment of the ‘puffer’ and maintained a quiet

dignity while the few neutral to positive representations of the alchemist were that of the scholarly alchemist who possessed assistants who carried out the operative aspects of alchemy.

This disdain for the operative aspects of alchemy is reflected by the general contempt for the peasantry and lower ranked occupations that were also reflected by artists who attempted to elevate their status from artisans by forming their own guilds, joining literary groups and even applying for nobility to place them in better economic and intellectual standing. This in turn made their paintings highly sought after by the middle classes who wanted to raise their own status as the collection of the arts was a mark of higher breeding. The picturesque image of the alchemist in seventeenth-century Netherlandish paintings reflects the attraction to the quaint, reclusive figure in a dimly lit laboratory or study, studying or practicing the traditional arts. In a sense their perceived folly was romanticised which lies in contrast to the romanticised and highly dignified homage to the role alchemists' played within the Scientific Revolution in Joseph Wright of Derby's (1734-97) eighteenth-century British representation of an enlightened alchemist (fig. 25), which depicts the moment of discovery of phosphorus which was first discovered by Hennig Brandt in 1669.<sup>471</sup>

Despite the desire of the middle class to separate themselves from the peasantry, the representations of the alchemist further reflects the common Netherlandish fear of being corrupted by wealth, as reflected by the perceived greed and preoccupation with

---

<sup>471</sup> Richard Morris, *The Last Sorcerers: The Path from Alchemy to the Periodic Table*, Washington: Joseph Henry Press, 2003, p. 78; Fathi Habashi, 'The Age of Alchemy: History of Chemistry, Metallurgy, and Civilisation', *Interdisciplinary Science Reviews*, 23, no. 4, 1998, p. 358.

luxury goods or excess in depictions of the peasant alchemist, who at the same time attempted to transmute base metals into gold. The seventeenth-century Netherlandish juxtaposition of the drive of the middle classes for higher social standing, while maintaining the fear of being corrupted by consumerism amidst the booming markets was related to contemporary notions of wealth. The drive for consumerist items, which reflected the abundance of the Netherlandish markets and love of trade, was matched only by a disdain for excessive displays of personal wealth.

While Netherlandish genre painting has traditionally been regarded as a form of realism, this view does not take into consideration their consistent use of satire and caricature as well as embellishment on interiors with moralising symbols to fulfil their didactic interpretation. Furthermore, given the prevalence and the influence the artists explored had on each other, it is unlikely that the paintings documented real life laboratories or individual alchemists, but that artists invented motifs and copied from each other. This culture of copying could have led to a degeneration of the accuracy while depicting alchemical equipment and interiors.<sup>472</sup> Ultimately, representations of the alchemist were intended to reinforce negative stereotypes and offer a didactic message to the target audience of the middle and upper classes. They also became a profitable commodity as paintings generally did not attract high prices during the seventeenth century, which suggests that the prevalence of these particular types of representations of the alchemist responded to the market and thus in turn were reinforced by the artists. Moreover, despite the use of stereotyping, there is a grain of truth in the representations. They provide a social mirror for understanding the negative reception of alchemy, despite its promises of wealth and contributions to

---

<sup>472</sup> Hill, 1975, p. 108.

industry and medicine during this period. Therefore, it is misleading to conclude that seventeenth-century representations of alchemists reflected 'normal scientists' or respected figures.<sup>473</sup>

In the end, seventeenth-century Netherlandish art can say little about the actual practice of alchemy, provided its use of allegory and satire, culture of imitation, use of symbolism and market that drove representations which reinforced stereotypes of the alchemist in this period. However, these works of art offer valuable sources of primary visual evidence for assessing the common perceptions of alchemy and alchemists amidst the emerging Scientific Revolution and Golden Age in the Netherlands. The early modern alchemist is also an antecedent of the enduring stereotype of modern scientists who are commonly featured in contemporary popular culture as 'quacks' and 'nutty professors'.<sup>474</sup> On the one hand, they are viewed as harmless inventors, and on the other, as dabbling beyond the laws of nature. In the twenty-first century, the world continues to look to the Bible as an ethical measure of the reasonable application of science.<sup>475</sup> In this way, the early modern alchemist's goals are not dissimilar to contemporary applications of science, especially in regards to the extension and creation of human life artificially.

The representation of the alchemist in seventeenth-century Netherlandish paintings explored in this dissertation highlights the complexity of the practice of early modern

---

<sup>473</sup> Brinkman, 1982, pp. 42, 47. Brinkman concluded that satirical representations of alchemists were rare during the seventeenth century, who interpreted representations of alchemists as objective reflections of reality - as normal workers doing their job like everyone else. Lennep, 1984, p. 361. Lennep concluded that in most cases alchemists were respected figures who inspired alchemists.

<sup>474</sup> Principe and DeWitt, 2002, p. 7.

<sup>475</sup> Cheshire, 2004, p. 183.

alchemy as well as its perceptions at this time. It has highlighted the practical application of alchemy in relation to a large range of socioeconomic classes as well as from the purely operative aspects of transmuting base metals into nobler ones to the objectives of scholarly alchemy which involved the study of the nature of matter as well as its religious implications. Although the discussion has focused on the two dominant representations of the alchemist in this period, it must be remembered that this is a limited, if vivid lens for the perception of historical reality and rather reflects broad stereotypes of the perception of the alchemist in the Netherlands during the seventeenth century. It has also suggested that the representation of the alchemist as fools, charlatans and scholars offers an imaginative entry into the cultural background of the twenty-first century view of the scientist. While the modern scientist is highly respected public profession, community mistrust continues to question and sometimes even scientific pursuits that challenge traditional belief systems in terms religion and ethics. We only need to think of the reception of cloning, test-tube babies, stem-cell research and the stereotypical portrayal of the mad or absent-minded professor in cinema or on our television screens.<sup>476</sup> Some of the most esteemed thinkers today who led the path to modern science found themselves ‘mercilessly lampooned on the stage and in broadsides’.<sup>477</sup> In this way, an analysis of the image and identity of the seventeenth-century alchemist in Netherlandish painting reveals our earliest perceptions of the ‘scientist’ and ambivalent cultural attitude towards scientific change.

---

<sup>476</sup> Principe and DeWitt, 2002, p. 7.

<sup>477</sup> Ibid., p. 6.

## BIBLIOGRAPHY

- Abbri, Ferdinando, 'Alchemy and Chemistry: Chemical Discourses in the Seventeenth Century', *Early Science and Medicine*, 5, no. 2, 2000, pp. 214-226.
- Abraham, Lyndy, *A Dictionary of Alchemical Imagery*, Cambridge: Cambridge University Press, 1998.
- Alpers, Svetlana, *The Art of Describing: Dutch Art in the Seventeenth Century*, London: John Murray, 1983.
- Amphlett, Hilda, *Hats: A History of Fashion in Headwear*, Mineola N.Y.: Courier Dover Publications, 2003.
- Aristotle, *Politics* (384-322BC), Charleston, South Carolina: Forgotten Books, 1977.
- Bacon, Francis, *The Works of Francis Bacon, Volume 4*, (1561-1626) trans. William Rawley, London: Longmans, 1858.
- Bacon, Francis, *The Advancement of Learning* (1605), London: Dent; New York: Dutton, 1950.
- Bacon, Roger, 'Opus terium' in J. S. Brewer (ed.), *Opera quaedam hactenus inedita*, (1214-1294), vol. 1, London: Longman, Green: Longman and Roberts, 1859, pp. 39-40.
- Bacon, Roger, *The Mirror of Alchemy* (1214-1294), Whitefish, M.T.: Kessinger Publishing, 2004.
- Ball, Philip, *The Devil's Doctor: Paracelsus and the World of Renaissance Magic and Science*, London: William Heinemann, 2006.
- Barton, Anne, *Ben Jonson: Dramatist*, Cambridge: Cambridge University Press, 1984.
- Battistini, Matilde, *Astrology, Magic, and Alchemy in Art*, trans. Rosanna M. Giammanco Frongia, Los Angeles: J. Paul Getty Museum, 2007.
- Bayer, Penny, 'From Kitchen Hearth to Learned Paracelsianism: Women and Alchemy in the Renaissance,' in Stanton J. Linden (ed.), *Mystical Metal of Gold: Essays on Alchemy and Renaissance Culture*, New York: AMS Presses, inc., 2007.
- Bennett, Tony, *The Birth of the Museum: History, Theory, Politics*, London: Routledge, 1995.
- Bergman, Madeleine, *Hieronymus Bosch and Alchemy: A Study on the St. Anthony Triptych*, Stockhom: Almqvist & Wiksell International, 1979.
- Biesboer, Pieter and Carol Togneri, *Collections of Paintings in Haarlem, 1572-1745*, Los Angeles: Getty Publications, 2001.
- Bisanz-Prakken, Marian (ed.), *Rembrandt and His Time: Masterworks from the Albertina, Vienna*, exh. cat., New York: Hudson Hills, 2005.

- Blockmans, W. P. 'The Formation of a Political Union, 1300-1600,' in J. C. H. Blom and E. Lamberts (eds), *History of the Low Countries*, trans. James C. Kennedy, New York: Berghahn Books, 2006, pp. 55-143.
- Boas, Marie, *Robert Boyle and Seventeenth-Century Chemistry*, Cambridge: Cambridge University Press, 1958.
- Bok, Marten Jan, 'The Artist's Life' in Guido M. C. Jansen (ed.), *Jan Steen: Painter and Storyteller*, exh. cat., Washington: National Gallery of Art; Amsterdam: Rijksmuseum; New Haven: Yale University Press, 1996, pp. 25-39.
- Boyle, Robert, *The Sceptical Chymist* (1661), London: J. M. Dent & Sons, Ltd; New York: E. P. Dutton & Co., 1911.
- Boyle, Robert, *A Defence of Nature and Revealed Religion: Being An Abridgement of the Sermons Preached at the Lecture founded by The Hon.ble Robert Boyle, Esq.*, vol. II, Brock, 1737.
- Brinkman, Abraham Arthur Anne Marie Brinkman, *De Alchemist in de prentkunst*, Amsterdam: Rodopi, 1982.
- Brown, Christopher, *Scenes of Everyday Life: Dutch Genre Paintings from the Mauritshuis*, Oxford: Ashmolean Museum, 1999.
- Bruneel, C. 'The Spanish and Austrian Netherlands, 1585-1780' in J. C. H. Blom and E. Lamberts (eds), *History of the Low Countries*, trans. James C. Kennedy, New York: Berghahn Books, 2006, pp. 221-269.
- Burckhardt, Titus, *Alchemy: Science of the Cosmos, Science of the Soul*, trans. William Stoddart, Baltimore, Maryland: Penguin, 1971.
- Butler, Alban, *Butler's Lives of the Saints: September*, Turnbridge Wells, Kent: Burns and Oates, 2000.
- Butterfield, Herbert, *The Origins of Modern Science 1300-1800*, London: G. Bell and Sons LTD, 1965.
- Buvelot, Quentin (ed.), *Frans van Mieris 1635-1681*, exh. cat., The Hague: Royal Picture Gallery Mauritshuis; Washington: National Gallery of Art; Zwolle: Waanders, 2005a.
- Buvelot, Quentin, 'Frans van Mieris' Reputation', in Quentin Buvelot (ed.), *Frans van Mieris 1635-1681*, exh. cat., The Hague: Royal Picture Gallery Mauritshuis; Washington: National Gallery of Art; Zwolle: Waanders, 2005b, pp. 12-28.
- Carr-Gomm, Sarah, *The Hutchinson Dictionary of Symbols in Art*, Oxford: Helicon, 1995.
- Cartwright, John H. and Brian Baker, *Literature and Science: Social Impact and Interaction*, Santa Barbara: ABC-CLIO, 2005.
- Cats, Jacob and Robert Farley, *Moral Emblems: With Aphorisms, Adages, and Proverbs, of all Ages and Nations* (1577-1660), New York: D. Appleton and Co., 1860.

- Chapman, H. Perry, 'Jan Steen, Player in his Own Paintings', in Guido M. C. Jansen (ed.), *Jan Steen: Painter and Storyteller*, exh. cat., Washington: National Gallery of Art; Amsterdam: Rijksmuseum; New Haven: Yale University Press, 1996, pp. 11-25.
- Chapman, H. Perry, 'Home and the Display of Privacy,' in Mariët Westermann (ed.), *Art and Home: Dutch Interiors in the Age of Rembrandt*, exh. cat., Denver, Colo: Denver Art Museum; Newark, N.J.: Newark Museum; Zwolle, Netherlands: Waanders Publishers, 2001, pp.129-154.
- Charles, Singer, *From Magic to Science: Essays on the Scientific Twilight*, New York: Dover Publications, 1958.
- Chaucer, Geoffrey, *The Canterbury Tales: From the Text and With the Notes and Glossary of Thomas Tyrwhitt (1340-1400)*, London: George Routledge, 1867.
- Cheshire Jr., William P. 'In Search of the Philosopher's Clone: Immortality through Replication', in Susan A. Salladay (ed.), *Aging, Death, and the Quest for Immortality*, Grand Rapids, Michigan: Wm. B. Eerdmans Publishing, 2004, pp. 175-193.
- Clippel, Karolien De and Michael Hoyle, 'Two Sides of the Same Coin? Genre Painting in the North and South during the Sixteenth and Seventeenth Centuries,' *Simiolus: Netherlands Quarterly for the History of Art*, 32, no. 1, 2006, pp. 17-34.
- Cobb, Cathy and Harold Goldwhite, *Creations of Fire: Chemistry's Lively History from Alchemy to the Atomic Age*, New York: Plenum Press, 1995.
- Cohen, I. Bernard and George E. Smith (eds), *The Cambridge Companion to Newton*, Cambridge: Cambridge University Press, 2002, pp. 1-33.
- Cook, Bernard A. *Belgium: A History*, New York: Peter Lang, 2002.
- Copenhaver, Brian, 'Natural Magic, Hermitism, and Occultism in Early Modern Science' in David C. Lindberg and Robert S. Westman (eds), *Reappraisals of the Scientific Revolution*, Cambridge: Cambridge University Press, 1990, pp. 261-303.
- Corbett, Jane R. 'Painted Science: Convention and Change in Seventeenth-Century Netherlandish Paintings of Alchemists, Physicians and Astronomers', Ph.D., Queen's University, 2004a.
- Corbett, Jane R. 'Seeing Things: *The Alchemist and Death by Thomas Wyck*' in Volker Manuth and Axel Rüger (eds) *Collected Opinions: Essays on Netherlandish Art in Honour of Alfred Bader*, London: Paul Holberton, 2004b, pp. 162-176.
- Corbett, Jane R. 'Convention and Change in Seventeenth-Century Depictions of Alchemists', in Jacob Wamberg (ed.), *Art and Alchemy*, Copenhagen: Museum Tusulanum Press, 2006, pp. 249-273.
- Craig, Kenneth M. 'Proverb's Progress: "A Fool Looking through His Fingers"' in C. C. Barfoot and Richard Todd (eds), *The Great Emporium: The Low Countries as a Cultural Crossroads in the Renaissance and the Eighteenth Century*, Amsterdam: Atlanta GA, Rodopi, 1992, pp. 105-137.



Croll, Oswald, *Philosophy Reformed and Improved in Four Profound Tractates: The I. Discovering the Great and Deep Mysteries of Nature* (1560-1608), Cornhill: M.S. for Lodowick Lloyd, 1657.

Crone, Hugh D. *Paracelsus: The Man Who Defied Medicine; His Real Contribution to Medicine*, Melbourne: Albarello Press, 2004.

Davidson, Jane P. 'Religious and Mythological Paintings by David Teniers II', Ph.D., University of Kansas, 1975.

Davidson, Jane P. *David Teniers the Younger*, Boulder, Colorado: Westview Press, 1979.

Davidson, Jane P. "'I am the Poison Dripping Dragon:' Iguanas and their Symbolism in the Alchemical and Occult Paintings of David Teniers the Younger, *AMBIX*, 34, 1987, pp. 62-80.

Degivry, Emile Grillot, *Picture Museum of Sorcery, Magic and Alchemy*, trans. J. Courtenay Locke, Whitefish, M.T.: Kessinger Publishing, 2003.

Deursen, A. T. van, 'The Dutch Republic, 1588-1780' in J. C. H. Blom and E. Lamberts (eds), *History of the Low Countries*, trans. James C. Kennedy, New York: Berghahn Books, 2006, pp. 143-210.

DeWitt, Lloyd and Lawrence M. Principe, 'Alchemy and its Images in the Eddleman and Fisher Collections at the Chemical Heritage Foundation,' in Jacob Wamberg (ed.), *Art and Alchemy*, Copenhagen: Museum Tusulanum Press, 2006, pp. 221-249.

Dittrich, Lothar and Sigrid Dittrich, 'Der Pferdeschädel als symbol in der Niederländischen malerei des 17. jahrhunderts,' *Niederdeutsche Beitrage zur Kunstgeschichte*, 34, 1995, pp. 107-18.

Dixon, Laurinda S. 'Alchemical Imagery in Bosch's Garden of Delights Triptych', Ph.D., Ann Arbor, Mich.: UMI Research Press, 1980.

Dixon, Laurinda S. *Alchemical Imagery in Bosch's Garden of Delights*, Ann Arbor, Mich.: UMI Research Press, 1981.

Dobbs, Betty Jo Teeter, *The Foundations of Newton's Alchemy, or, "The hunting of the green lyon"*, Cambridge: Cambridge University, 1983.

Dobbs, Betty Jo Teeter, 'Newton's Commentary on the Emerald Tablet of Hermes Trismegistus: Its Scientific and Theological Significance', in Ingrid Markel and Allen G. Debus (eds), *Hermeticism and the Renaissance: Intellectual History and the Occult in Early Modern Europe*, London: Associated University Presses, 1988.

Domini, Donatino, *Chymica vannus: dell'alchimia o la scienza sognata*, exh. cat. Ravenna: Longo editore, 1986.

Easlea, Brian, *Witch Hunting Magic and the New Philosophy: An Introduction to Debates of the Scientific Revolution 1450-1750*, Brighton, Sussex: Harvester Press; Atlantic Highlands, N.J.: Humanities Press, 1980.

Edwardes, Michael, *The Dark Side of History: Magic in the Making of Man*, London: Hart-Davis MacGibbon, 1978.

- Elkins, James, 'On the Unimportance of Alchemy in Western Painting', *Konsthistorisk Tidskrift*, 61, no. 1, 1992, pp. 21-26.
- Elmer, Peter, *The Healing Arts: Health, Disease and Society in Europe, 1500-1800*, Manchester: Manchester University Press, 2004.
- Fanning, Philip A. *Isaac Newton and the Transmutation of Alchemy: An Alternative View of the Scientific Revolution*, Berkeley: North Atlantic Books, 2009.
- Ferchl, Fritz and A. Süssenguth, *A Pictorial History of Chemistry*, London: William Heinemann Ltd., 1939.
- Fernandez-Ármesto, Felipe, *Ideas that Changed the World*, London: Dorling Kindersley, 2003.
- Ford, Brian J. *Images of Science: A History of Scientific Illustration*, London: British Library, 1992.
- Forshaw, Peter, "Alchemy in the Amphitheatre": Some Considerations of the Alchemical Content of the Engravings in Heinrich Khunrath's Amphitheatre of Eternal Wisdom (1509) in Jacob Wamberg (ed.), *Art and Alchemy*, Copenhagen: Museum Tusulanum Press, 2006, pp. 195-221.
- Franits, Wayne (ed.), *Looking at Seventeenth-Century Dutch Art: Realism Reconsidered*, Cambridge: Cambridge University Press, 1997.
- Franits, Wayne, *Dutch Seventeenth-Century Genre Painting: Its Stylistic and Thematic Evolution*, New Haven: Yale, 2004.
- French, Peter, *John Dee: The World of an Elizabethan Magus*, London: Routledge and K. Paul, 1987.
- Frijhoff, Willem and Marijke Spies, *Dutch Culture in a European Perspective: 1650: Hard-won Unity*, Hampshire; New York: Palgrave Macmillan Ltd; Royal Van Gorcum: Assen, 2004.
- Gettings, Fred, *The Hidden Art: A Study of Occult Symbolism in Art*, London: Studio Vista, 1978.
- Gibbons, B. J. *Spirituality and the Occult: From the Renaissance to the Twentieth Century*, London: Routledge, 2001.
- Gibson, Walter S. *Pieter Bruegel and the Art of Laughter*, Berkeley: University of California Press, 2006.
- Gilpin, Richard, *Daemonologia sacra: or, A Treatise of Satan's Temptations; in three parts*, London: J.D. for Randel and P. Maplisden, 1677.
- Giorgi, Rosa, *European Art of the Seventeenth Century*, Los Angeles: Getty Publications, 2006.
- Goldstein, Thomas, *Dawn of Modern Science: From the Arabs to Leonardo Da Vinci*, Boston: Houghton Mifflin, 1980.

- Gombrich, Ernest. H. *The Story of Art*, eleventh, ed., London: Phaidon, 1966.
- Grant, Lynette D. 'Alchemy and Art during the Sixteenth and Seventeenth Centuries', M.A., University of Sydney, 1980.
- Greenberg, Arthur, *A Chemical History Tour: Picturing Chemistry from Alchemy to Modern Molecular Science*, New York: John Wiley & Sons, 2000.
- Greenberg, Arthur, *From Alchemy to Chemistry in Picture and Story*, Hoboken, N. J.: John Wiley, 2007.
- Greer, John Michael, *The New Encyclopedia of the Occult*, St. Paul, Minnesota: Llewellyn Worldwide, 2003.
- Gribbin, John, *Science: A History 1543-2001*, London: Allen Lane, 2002.
- Guerber, Hélène A. *The Myths of Greece and Rome*, New York: Cosimo, Inc., 2007.
- Guiley, Rosemary, *The Encyclopedia of Magic and Alchemy*, New York: Facts on File, 2006.
- Habashi, Fathi, 'The Age of Alchemy: History of Chemistry, Metallurgy, and Civilisation', *Interdisciplinary Science Reviews*, 23, no. 4, 1998, p.348-361.
- Hall, Alfred R. *Henry More, and the Scientific Revolution*, Cambridge: Cambridge University Press, 1996.
- Hall, James, *Illustrated Dictionary of Symbols in Eastern and Western Art*, London: John Murray, 1994.
- Hansen, Julie V. and Suzanne Porter, *The Physician's Art: Representations of Art and Medicine*, Durham: Duke University Medical Center Library, Duke University Museum of Art, 1999.
- Harkness, Deborah E. *John Dee's Conversations with Angels: Cabala, Alchemy, and the End of Nature*, Cambridge: Cambridge University Press, 1999.
- Harper, Douglas, 'Science', *Online Etymology Dictionary*, 2001-2010, <http://www.etymonline.com/index.php?term=science> accessed: February 9, 2011.
- Harper, Douglas, 'Scientist', *Online Etymology Dictionary*, 2001-2010, <http://www.etymonline.com/index.php?term=science> accessed: February 9, 2011.
- Hartlaub, Gustav F. *Alchemisten und Rosenkreuzer: Sittenbilder von Petrarca bis Balzac, von Breughel bis Kubin*, Willsbach, Germany: Scherer Verlag, 1947.
- Haute, Bernadette van, *David III Ryckaert: A Seventeenth-Century Flemish Painter of Peasant Scenes*, Turnhout, Belgium: Brepols, 1999.
- Haute, Bernadette van, 'Ryckaert at Work: A Flemish Painter's View of Labour', *de arte*, 77, 2008, pp. 4-19.
- Haynes, Roslynn, *From Faust to Strangelove: Representations of the Scientist in Western Literature*, Baltimore: John Hopkins University Press, 1994.

- Haynes, Roslynn, 'The Alchemist in Fiction: The Master Narrative,' in Joachim Schummer, Bernadette Bensaude-Vincent and Brigitte van Tiggelen (eds), *The Public Image of Chemistry*, Singapore: World Scientific, 2007, pp. 7-37.
- Helfman, Gene S., Bruce B. Collette, Douglas E. Facey and Brian W. Bowen, *The Diversity of Fishes: Biology, Evolution, and Ecology*, Chichester, West Sussex: John Wiley and Sons, 2009.
- Henry, John, 'Magic and Science in the Sixteenth and Seventeenth Centuries,' in Robert. C. Olby, Geoffrey N. Cantor, John R. R. Christie and Johnathon. S. Hodge (eds), *Companion to the History of Modern Science*, London: Routledge, 1990, pp. 583-96.
- Henry, John, *The Scientific Revolution and the Origins of Modern Science*, Basingstoke, UK: Palgrave Macmillan, 2008.
- Hesse, Mary, 'Hermeticism and Historiography: An Apology for the Internal History of Science' in Roger H. Stuewer (ed.), *Historical and Philosophical Perspectives of Science*, Minneapolis: University of Minnesota Press, 1970, pp. 134-160.
- Hill, C. R. 'The Iconography of the Laboratory', *AMBIX*, 22, no. 2, 1975, pp. 102-10.
- Hollander, Anne, *Seeing Through Clothes*, Berkeley: University of California Press, 1993.
- Holmyard, Eric. J. 'Alchemical Equipment' in Charles J. Singer (ed.), *A History of Technology*, vol. 2, Oxford: Clarendon Press, 1967-78, pp. 731-53.
- Holmyard, Eric. J. *Alchemy*, New York: Dover Publications, 1990.
- Honig, Elizabeth A. *Painting and the Market in Early Modern Antwerp*, New Haven: Yale University Press, 1998.
- Howey, M. Oldfield, *Horse in Magic and Myth*, Whitefish, M.T.: Kessinger Publishing, 2003.
- Jongh, Eddy de, 'Jan Steen, So Near and Yet So Far,' in Guido M. C. Jansen (ed.), *Jan Steen: Painter and Storyteller*, exh. cat., Washington: National Gallery of Art; Amsterdam: Rijksmuseum; New Haven: Yale University Press, 1996, pp. 39-53.
- Jongh, Eddy de, 'Frans van Mieris: Questions of Understanding' in Quentin Buvelot (ed.), *Frans van Mieris 1635-1681*, exh. cat., The Hague: Royal Picture Gallery Mauritshuis; Washington: National Gallery of Art; Zwolle: Waanders, 2005, pp. 44-62.
- Jonson, Ben, *The Alchemist* (1610), Charleston, South Carolina: Forgotten Books, 2008.
- Kahr, Madlyn M. *Dutch Painting in the Seventeenth Century*, second ed., Cambridge, Mass.: Perseus Publishing, 1993.
- Kettering, Alison M. 'Men at Work in Dutch Art, or Keeping One's Nose to the Grindstone' *The Art Bulletin*, 89, no. 4, 2007, pp. 694-714.
- Klawans, Harold L. *Newton's Madness: Further Tales of Clinical Neurology*, New York, Harper and Row Publishers, 1990.
- Klinge, Margret, *David Teniers the Younger*, exh. cat., trans. David R. McLintock, Koninklijk Museum voor Schone Kunsten: Snoeck-Ducaju & Zoon, 1991.

- Klinge, Margret, 'David Teniers and the Theatre of Painting,' trans. Judith Hayward in Ernst Vegelin van Claerbergen (ed.), *David Teniers and the Theatre of Painting*, exh. cat., London: Courtland Institute of Art Gallery, 2006, pp. 10-40.
- Klossowski de Rola, Stanislas, *Alchemy: The Secret Art*, London: Thames and Hudson, 1973.
- Körtner, Ulrich H. J. 'Calvinism and Capitalism' in Martin Ernst Hirzel and Martin Sallmann (eds), *John Calvin's Impact on Church and Society, 1509-2009*, Grand Rapids, Michigan: Wm.B. Eerdmans, 2009, pp. 159-175.
- L'Ancre, Pierre de, *Tableau de l'inconstance des manuvais anges et demons: ou il est amplement traicté des sorciers et de la sorcelerie*, Paris: J. Berjon, 1612.
- Lenep, Jacques van, *Art et Alchimie: Etude de l'iconographie hermetique et de ses influences*, Bruxelles: Meddens, 1971.
- Lenep, Jacques van, *Alchimie: Contribution à l'histoire de l'art alchimique*, exh. cat., Bruxelles: Crédit Communal, 1984.
- Lindberg, David C. 'Science and the Early Church', in David C. Lindberg and Ronald L. Numbers (eds), *God and Nature: Historical Essays on the Encounter Between Christianity and Science*, Berkeley: University of California Press, 1986.
- Luther, Martin, *The Table Talk of Martin Luther* (1566), trans. ed. William Hazlitt, London: H.G. Bohn, 1857.
- McKeon, Michael, *The Secret History of Domesticity: Public, Private and the Division of Knowledge*, Baltimore: Johns Hopkins University Press, 2006.
- Mare, Heidi de, 'Domesticity in Dispute: A Reconsideration of Sources', in Irene Cieraad (ed.), *At Home: An Anthropology of Domestic Space*, Syracuse, N. Y.: Syracuse University Press, 2006, pp. 13-31.
- Marlowe, Christopher, *Doctor Faustus* (c.1592), London: Nick Hern Books Limited, 1996.
- Mauries, Patrick, *Cabinets of Curiosities*, London: Thames and Hudson, 2002.
- Meijer, Fred G. *Dutch and Flemish Still-life Paintings*, Oxford: Ashmolean Museum, 2003.
- Mercer, John Edward, *Alchemy: Its Science and Romance*, Whitefish, M.T.: Kessinger Publishing, 2003.
- Morris, Richard, *The Last Sorcerers: The Path from Alchemy to the Periodic Table*, Washington: Joseph Henry Press, 2003.
- Morrissey, Susan R. 'Alchemical Art', *Science & Technology*, 2002, 80, no. 27, pp. 30-2.
- Muizelaar, Klaske and Derek Phillips, *Picturing Men and Women in the Dutch Golden Age: Paintings and People in Historical Perspective*, New Haven: Yale University Press, 2003.
- Naumann, Otto, *Frans Van Mieris (1635-1681) The Elder*, vol. 1, Doornspijk, The Netherlands: Davaco, 1981.

- Naumann, Otto, 'Frans van Mieris' Personal Style' in Quentin Buvelot (ed.), *Frans van Mieris 1635-1681*, exh. cat., The Hague: Royal Picture Gallery Mauritshuis; Washington: National Gallery of Art; Zwolle: Waanders, 2005.
- Newman, William R. *Promethean Ambitions: Alchemy and the Quest to Perfect Nature*, Chicago: University of Chicago Press, 2004.
- North, Michael, *Art and Commerce in the Dutch Golden Age*, trans. Catherine Hill, New Haven: Yale University Press, 1997.
- Nummedal, Tara E. *Alchemy and Authority in the Holy Roman Empire*, Chicago: University of Chicago Press, 2007.
- O'Mahoney, Elizabeth E. 'Representations of Gender in Seventeenth-Century Netherlandish Alchemical Genre Painting', Ph.D., The University of York, 2006.
- Paracelsus, *Selected Writings* (1493-1541), ed. Jolande S. Jacobi, Princeton: Princeton University Press, 1951.
- Paracelsus, 'The Aurora of the Philosophers' in *The Hermetic and Alchemical Writings of Paracelsus* (1493-1541), Sioux Falls, South Dakota: NuVision Publications, LLC, 2007, pp. 31-65.
- Paracelsus, 'The Book Concerning The Tincture of The Philosophers', in *The Hermetic and Alchemical Writings of Paracelsus* (1493-1541), Sioux Falls, South Dakota: NuVision Publications, LLC, 2007, pp. 95-105.
- Pearce, Barry, *Cornelis Bega Etchings*, exh. cat., Adelaide: Art Gallery of South Australia, 1977.
- Pollmann, Judith, *Religious Choice in the Dutch Republic: The Reformation of Arnoldus Buchelius, 1565-1641*, Manchester: Manchester University Press ND, 1999.
- Price, David, *Albrecht Dürer's Renaissance: Humanism, Reformation, and the Art of Faith*, Michigan: University of Michigan Press, 2003.
- Price, J. L. *The Dutch Republic in the Seventeenth Century*, Basingstoke: Palgrave Macmillan, 1998.
- Principe, Lawrence M. *The Aspiring Adept: Robert Boyle and His Alchemical Quest*, Princeton: Princeton University Press, 2000.
- Principe, Lawrence M. and William R. Newman, 'Some Problems with the Historiography of Alchemy' in Anthony Grafton (ed.) *Secrets of Nature: Astrology and Alchemy in Early Modern Europe*, Cambridge, Mass.: MIT Press, 2001, pp. 385-433.
- Principe, Lawrence M. and Lloyd DeWitt, *Transmutations: Alchemy in Art; Selected Works from the Eddleman and Fisher Collections at the Chemical Heritage Foundation*, Philadelphia: Chemical Heritage Foundation, 2002.
- Peyre, Roger, *David Teniers: Biographie Critique; Illustrée de vingt-quatre reproductions hors texte*, Henri Laurens, Paris, c.1910.

- Rayner-Canham, Marelene F. and Geoffrey Rayner-Canham, *Women in Chemistry: Their Changing Roles from Alchemical Times to the Mid-Twentieth Century*, Philadelphia: Chemical Heritage Foundation, 2001.
- Read, John, *The Alchemist in Life, Literature and Art*, London: Thomas Nelson, 1947.
- Read, John, *From Alchemy to Chemistry*, Mineola N.Y.: Courier Dover Publications, 1995.
- Roberts, Gareth, *The Mirror of Alchemy: Alchemical Ideas and Images in Manuscripts and Books; from Antiquity to the Seventeenth Century*, Toronto; Buffalo: University of Toronto Press, 1994.
- Rosenberg, Adolf, *Teniers der Jungere*, Künstler-monographien 8, Bielefeld, Velhagen and Klasing, 1895.
- Rosenberg, Jakob, Seymour Slive and E. H. ter Kuile (eds), *Dutch Art and Architecture, 1600-1800*, third ed., New Haven: Yale University Press, 1977.
- Rossi, Paolo, *Francis Bacon: From Magic to Science*, trans. Sacha Rabinovitch, London: Routledge and Kegan Paul, 1968.
- Rossi, Paola, *The Birth of Modern Science*, trans. Cynthia De Nardi Ipsen, Oxford: Wiley-Blackwell, 2001.
- Rulandus, Martinus, *Lexicon of Alchemy (1532-1602)*, Whitefish, M.T.: Kessinger Publishing, 1992.
- Schama, Simon, 'The Unruly Realm: Appetite and Restraint in Seventeenth Century Holland', *Daedalus*, 108, no. 3, 1979, pp. 103-123.
- Schama, Simon, *The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age*, New York: Random House, 1987.
- Schneider, Norbert, *Still Life: Still Life Painting in the Early Modern Period*, Köln: Taschen, 2003.
- Schramm, Petra, *Die Alchemisten: Gelehrte, goldmacher, gaukler; ein dokumentarischer bildband*, Taunstein: Edition Rarissima, 1984.
- Schummer, Joachim and Tami I. Spector, 'The Visual Image of Chemistry: Perspectives from the History of Art and Science,' *International Journal for Philosophy of Chemistry*, 13, 2007, pp. 3-41.
- Slive, Seymour, 'Realism and Symbolism in Seventeenth-Century Dutch Painting', *Daedalus*, 91, no. 3, 1962, pp. 469-500.
- Sluijter, Eric Jan, "'All Striving to adorne their houses with costly peeces": Two Case Studies of Painting in Wealthy Interiors' in Mariët Westermann (ed.), *Art and Home: Dutch Interiors in the Age of Rembrandt*, exh. cat., Denver, Colo: Denver Art Museum; Newark, N.J.: Newark Museum; Zwolle, Netherlands: Waanders Publishers, 2001, pp. 103-129.
- Smith, Pamela H. *The Body of the Artisan: Art and Experience in the Scientific Revolution*, Chicago: University of Chicago Press, 2004.

- Steffler, Alva William, *Symbols of the Christian Faith*, Grand Rapids, Michigan: Wm.B. Eerdmans Publishing, 2002.
- Sterling, Charles, *Still Life Painting: From Antiquity to the Twentieth Century*, second ed., New York: Harper and Row, 1981.
- Sumowski, Werner, *Gemälde der Rembrandt-Schüler*, Landau: Edition PVA, 1983.
- Sutton, Peter C. *Dutch and Flemish Painting: The Collection of Wilem Baron van Dedem*, London: Frances Lincoln Ltd., 2002.
- Sutton, Peter C. (ed.), *Love Letters: Dutch Genre Paintings in the Age of Vermeer*, London: Frances Lincoln Ltd., 2003.
- Swiderski, Richard M. *Quicksilver: A History of the Use, Lore and Effects of Mercury*, Jefferson, North Carolina: McFarland, 2008.
- Szönyi, György Endre, *John Dee's Occultism: Magical Exaltation Through Powerful Signs*, Albany: State University of New York Press, 2004.
- Tambiah, Stanley J. *Magic, Science, Religion, and the Scope of Rationality*, Cambridge: Cambridge University Press, 1990.
- Taylor, Frank S. *The Alchemists: Gold; Historical and Economic Aspects*, New York: Arno Press, 1974.
- Thomas, Keith, *Religion and the Decline of Magic*, New York: Scribner, 1971.
- Thompson, Charles J. S. *Alchemy and Alchemists*, Toronto, General Publishing Company Ltd., 2002.
- Thompson, Charles. J. S. *Quacks of Old London*, Whitefish, M.T.: Kessinger Publishing, 2003.
- Tompkins, Ptolemy, *The Monkey in Art*, New York: Scala Books, 1994.
- Türk, Klaus, *Physicians, Quacks and Alchemists: Seventeenth Century Paintings from the Eckhart G. Grohmann Collection at the Milwaukee School of Engineering*, Milwaukee: Milwaukee School of Engineering Press, 2005.
- Verberckmoes, Johan, 'The Comic and the Counter Reformation in Spanish Netherlands,' in Jan Bremmer and Herman Roodenburg (eds), *A Cultural History of Humour*, Cambridge: Polity Press, 1997, pp. 76-90.
- Vlieghe, Hans, *David Teniers the Younger (1610-1690): A Biography*, Turnhout, Belgium: Brepols, 2011.
- Waite, Arthur E. *The Secret Tradition in Alchemy: Its Development and Records*, London: Kegan Paul, Trench, Trubner and Co., 1926.
- Warlick, M. E. 'The Domestic Alchemist: Women as Housewives in Alchemical Emblem' in Alison Adams and Stanton J. Linden (eds), *Emblems and Alchemy*, Glasgow: University of Glasgow, 1998, pp. 25-49.



- Warlick, M. E. 'Fluctuating Identities: Gender Reversals in Alchemical Imagery' in Jacob Wamberg (ed.), *Art and Alchemy*, Copenhagen: Museum Tusulanum Press, 2006, pp. 103-129.
- Watanabe-O'Kelly, Helen, 'Saxony, Alchemy and Dr Faustus' in Alexandra Lambert (ed.), *The Golden Egg: Alchemy in Art and Literature*, Glienicke, Berlin: Galda and Wilch, 2002, pp.31-43.
- Wasserman, James, *Art and Symbols of the Occult*, London: Tiger Books International, 1993.
- Webster, Charles, *From Paracelsus to Newton: Magic and the Making of Modern Science*, Cambridge: Cambridge University Press, 1982.
- Weller, Dennis P. (ed.) *Jan Miense Molenaer: Painter of the Dutch Golden Age*, exh. cat. Raleigh, North Carolina: North Carolina Museum of Art, 2002.
- Welu, James A. *The Collector's Cabinet: Flemish Paintings from New England Private Collections*, Amherst, Massachusetts: University of Massachusetts Press, 1983.
- Westermann, Mariët, 'Steen's Comic Fictions' in Guido M. C. Jansen (ed.), *Jan Steen: Painter and Storyteller*, exh. cat., Washington: National Gallery of Art; Amsterdam: Rijksmuseum; New Haven: Yale University Press, 1996, pp. 53-69.
- Westermann, Mariët, 'How was Jan Steen Funny? Strategies and Functions of Comic Painting in the Seventeenth Century' in Jan Bremmer and Herman Roodenburg (eds), *A Cultural History of Humour: From Antiquity to the Present Day*, Cambridge: Polity Press, 1997, pp.134-179.
- Westermann, Mariët, "'Costly and Curious, Full off pleasure and home contentment'" Making Home in the Dutch Republic', in Mariët Westermann (ed.), *Art and Home: Dutch Interiors in the Age of Rembrandt*, exh. cat., Denver, Colo: Denver Art Museum; Newark, N.J.: Newark Museum; Zwolle, Netherlands: Waanders Publishers, 2001, pp. 15-83.
- Westermann, Mariët, *The Art of the Dutch Republic, 1585-1718*, London: Laurence King, 2005.
- White, Michael, *Isaac Newton: The Last Sorcerer*, London: Fourth Estate, 1997.
- Wilford, John N. 'Transforming the Alchemist', *New York Times*, 1 August 2006, <http://www.nytimes.com/2006/08/01/science/01alch.html?ex=1312084800&en=4445e5f8f9c7b3c0&ei=5090&partner=rssuserland&emc=rss> accessed: January 8, 2011.
- Yates, Frances A. 'The Hermetic Tradition in Renaissance Science' in Charles S. Singleton (ed.), *Art, Science and History in the Renaissance*, Baltimore: Johns Hopkins Press, 1967, pp. 255-74.
- Yates, Frances A. *The Rosicrucian Enlightenment*, London: Routledge and Kegan Paul, 1972.
- Zöllner, Frank, *Leonardo Da Vinci, 1452-1519*, Köln: Taschen, 2000.

# CATALOGUE

As representations of the alchemist in seventeenth-century Netherlandish paintings range in the hundreds, if not thousands, the works of art selected for analysis and discussion in this dissertation reflect a broad spectrum of the different types of imagery related to this theme. It is for this reason that the catalogue is organised thematically and divided into four major sections related to the subject of alchemy in Netherlandish art, society and culture in this period. The first two sections reflect the major class distinctions (peasantry and middle to upper classes) in the representation of the alchemist. This is followed by the third section, which reflects the medicinal application of alchemy (physicians and iatrochemists), while the fourth is focused on religious and mythological sub-themes that influenced representations of alchemists in the seventeenth-century Netherlands. All efforts have been made to obtain accurate details regarding the paintings listed in the Catalogue.

## **I. PEASANTRY**

NOTE:

This figure is included on page 118 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 1. Philip Galle (After Pieter Bruegel the Elder), *The Alchemist*, c.1558,  
Ink on paper, 32.54 x 44.61 cm,  
Minneapolis, The Minneapolis Institute of Arts.



Fig. 2. Adriaen van de Venne, *Rijcke-armoede* ('Rich Poverty'), 1636,  
Oil on panel, 38.1 x 49.5cm,  
Philadelphia, Philadelphia Chemical Heritage Foundation, Fisher Collection.



Fig. 3. Adriaen van Ostade, *Alchemist*, 1661,  
Oil on panel, 34 x 45.2cm,  
London, National Gallery.

NOTE:

This figure is included on page 121 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 4. Cornelis Bega, *The Alchemist*, 1663,  
Oil on panel, 35.6 x 31.8cm,  
Malibu, J. Paul Getty Museum Collection.





Fig. 5. David Teniers the Younger, *The Alchemist*, 1649,  
Oil on canvas, 59.4 x 83.8cm,  
Philadelphia, Philadelphia Museum of Art, John G. Johnson Collection.



Fig. 6. David Teniers the Younger, *Tavern Scene*, 1658,  
Oil on panel, 48.7 x 68.7cm,  
Washington D.C., National Gallery of Art.

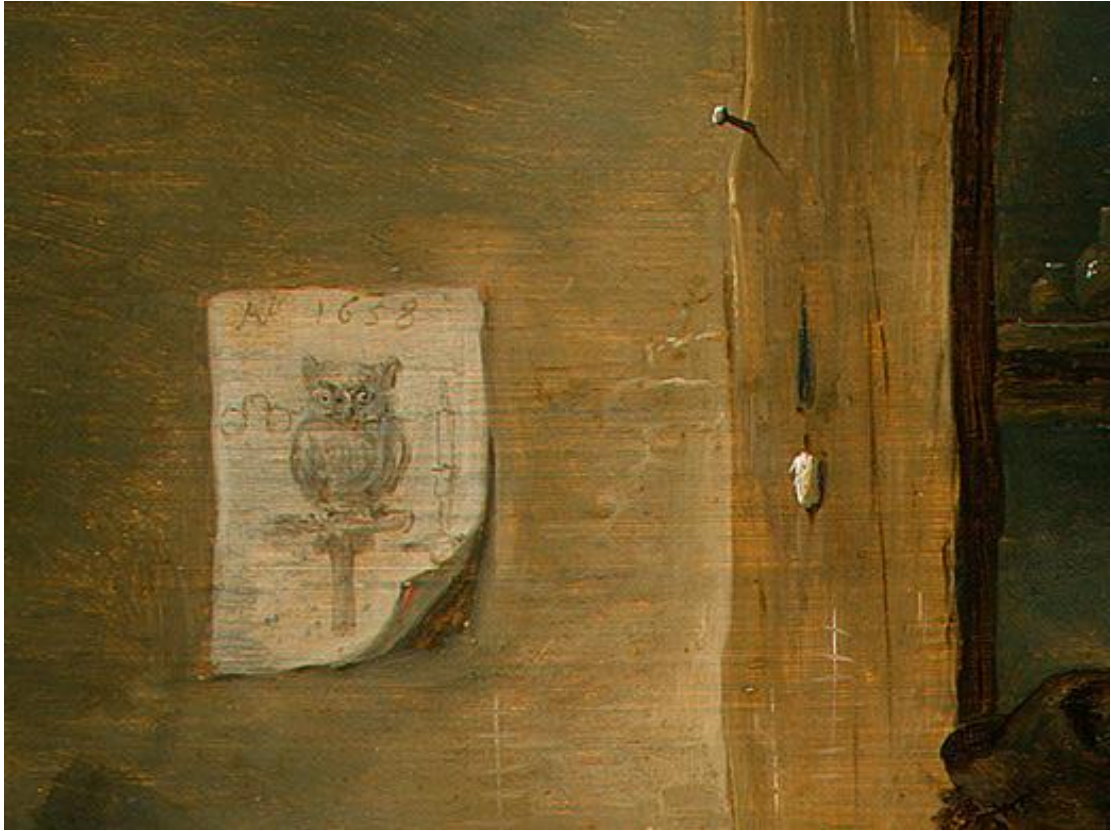


Fig. 7. David Teniers the Younger, *Tavern Scene*, Detail, 1658,  
Oil on panel, 48.7 x 68.7cm,  
Washington D.C., National Gallery of Art.

NOTE:

This figure is included on page 125 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 8. Jan Steen, *The Alchemist*, c.1668,  
Oil on canvas, 34 x 28.5cm,  
Frankfurt, Städelsches Kunstinstitut.

NOTE:

This figure is included on page 126 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 9. Jan Steen, Title Unknown, c.1668,  
Medium unknown, 106 x 82cm,  
Formerly Collection of the Earl of Crawford and Balcarras.

## **II. MIDDLE TO UPPER-CLASSES**

NOTE:

This figure is included on page 128 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 10. Hendrik Heerschop, *The Alchemist*, 1671,  
Oil on panel, 55 x 44cm,  
Milwaukee, Collection of Drs. Alfred and Isabel Bader.





Fig. 11. Hendrik Heerschop, *The Alchemist's Experiment Takes Fire*, 1687, Oil on canvas, laid down on board, 53.34 x 44.45cm, Philadelphia, Chemical Heritage Foundation, Fischer Collection.



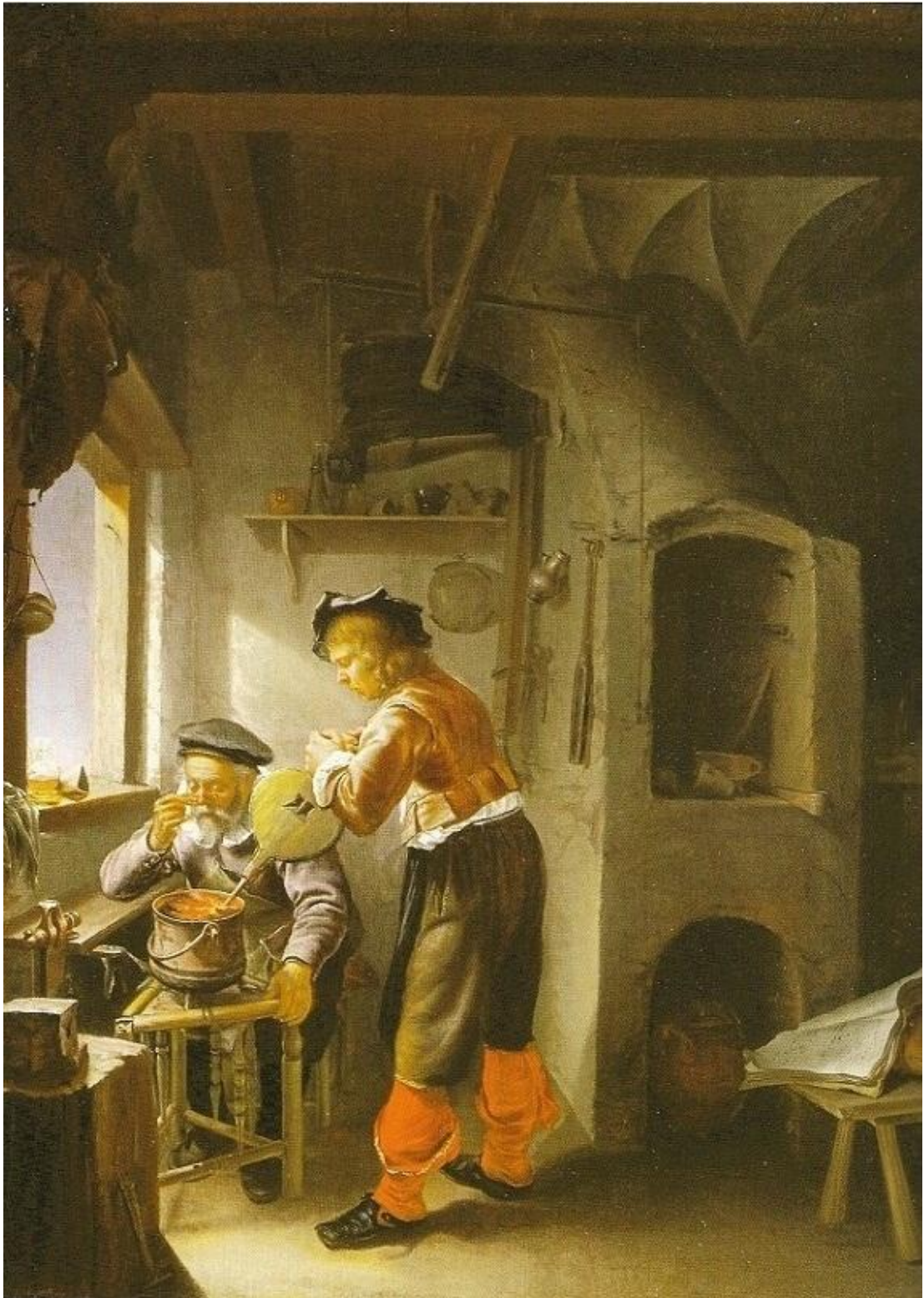


Fig. 12. Frans van Mieris the Elder, *An Alchemist and His Assistant in a Workshop*, c.1655, Oil on panel, 47 x 35.5cm, Private Collection.



Fig. 13. Thomas Wijck, *The Alchemist*, c.1650,  
Oil on panel, 48.3 x 39.4cm,  
Philadelphia, Chemical Heritage Foundation Collection, Eddleman Collection.





Fig. 14. Engraved by Pierre François Basan, 1800s, after the painting by David Teniers the Younger, *Le Plaisir des Fous* ('The Pleasure of Fools'), 1610-1690. Engraving on laid paper, 22.9 x 18.4cm, Philadelphia, Chemical Heritage Foundation, Fisher Collection.

NOTE:

This figure is included on page 133 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 15. David Teniers the Younger, *The Alchemist*, c.1645,  
Oil on panel, 51 x71cm,  
Brunswick, Herzog Anton Ulrich-Museum.

NOTE:

This figure is included on page 134 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 16. Thomas Wijck, *L'Alchimiste en Méditation*, 1616-1677,  
Oil on panel, 42.4 x 35.7cm,  
Cassel, Staatliche Museen Kassel, Gemäldegalerie Alte Meister.



Fig. 17. Thomas Wijck, *The Alchemist in his Studio*, 1616-1677, Oil on panel, 22.9 x 17.8cm, Philadelphia, Chemical Heritage Foundation.

### **III. PHYSICIANS AND IATROCHEMISTS**





Fig. 18. David Teniers the Younger, *The Surgeon*, c.1670,  
Oil on canvas, 57.2 x 73.7cm,  
Norfolk, Virginia, Chrysler Museum of Art.



NOTE:

This figure is included on page 138 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 19. David Teniers the Younger, *Alchemist in his Studio*, c.1651-6,  
Oil on wood, 27.5 x 38.5cm,  
Vienna, Kunsthistorisches Museum.

NOTE:

This figure is included on page 139 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 20. Circle of Giuseppe Ribera, *Jesus and the Doctors of the Faith*, c.1630, Oil on panel, 27.5 x 38.5cm, Vienna, Kunsthistorisches Museum.

NOTE:

This figure is included on page 140 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 21. Jacob van Toorenvliet, *An Alchemist with his Apprentice in his Studio*, 1600s, Oil on copper, 69 x 46.5cm, Private Collection.

NOTE:

This figure is included on page 141 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 22. David Ryckaert III, *The Alchemist*, 1634,  
Oil on oak, 46.7 x 79cm,  
Vienna, Kunsthistorisches Museum.

NOTE:

This figure is included on page 142 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 23. David Ryckaert III, *Scholar with Homunculus in Glass Phial*, c.1649, Oil on panel, 59.1 x 78.8cm, Mannheim, Reiß-Museum der Stadt Mannheim.

NOTE:

This figure is included on page 143 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 24. David Ryckaert III, *Scholar with Homunculus in Glass Phial*, Detail, c.1649, Oil on panel, 59.1 x 78.8cm, Mannheim, Reiß-Museum der Stadt Mannheim.

#### **IV. RELIGIOUS AND MYTHOLOGICAL THEMES**

NOTE:

This figure is included on page 145 of the print copy of the thesis held in the University of Adelaide Library.

fig. 25. Joseph Wright of Derby, *The Alchemist, in Search for the Philosopher's Stone, Discovers Phosphorus, and prays for the successful Conclusion of his operation, was the custom of the Ancient Chymical Astrologers*, 1771, Oil on canvas, 127 x 101.6cm, Derby, Derby Museum and Art Gallery.



NOTE:

This figure is included on page 146 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 26. Albrecht Dürer, *Saint Jerome in His Study*, 1514,  
Engraving, 24.7 x 18.8cm,  
London, British Museum.

NOTE:

This figure is included on page 147 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 27. David Teniers the Younger, *The Temptations of St. Anthony*, c.1650, Oil on copper plate, 55 x 69cm, Madrid, Museo del Prado.



Fig. 28. David Teniers the Younger, *Alchemist in his Workshop*, c.1650, Oil on canvas, 71 x 87.5cm, Philadelphia, Chemical Heritage Foundation, Eddleman Collection.

NOTE:

This figure is included on page 149 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 29. David Teniers the Younger, *Old Woman Binding a Devil to a Cushion*,  
c.1635,  
Oil on wood, 31 x 46cm,  
Munich, Bayerische Staatsgemäldesammlungen, Alte Pinakothek.

NOTE:

This figure is included on page 150 of the print copy of the thesis held in the University of Adelaide Library.

Fig. 30. Adriaen Jacobsz Matham, *Temptress Woman, Devil, Alchemist*, 1590-1660, Engraving, dimensions unknown, Location unknown.



Fig. 31. Egbert van Heemskerck I, *An Alchemist in his Study*, 1600s,  
Oil on canvas, 38.1 x 50.2cm,  
Philadelphia, Chemical Heritage Foundation, Fisher Collection.