

Painted Alchemists

Amsterdam Studies in the Dutch Golden Age

Editorial Board:

Frans Blom, University of Amsterdam Michiel van Groesen, Leiden University Geert H. Janssen, University of Amsterdam Elmer E.P. Kolfin, University of Amsterdam Nelleke Moser, VU University Amsterdam Henk van Nierop, University of Amsterdam Claartje Rasterhoff, University of Amsterdam Emile Schrijver, University of Amsterdam Thijs Weststeijn, Utrecht University

Advisory Board:

H. Perry Chapman, University of Delaware Harold J. Cook, Brown University Benjamin J. Kaplan, University College London Orsolya Réthelyi, Eötvös Loránd University Budapest Claudia Swan, Northwestern University

Painted Alchemists

Early Modern Artistry and Experiment in the Work of Thomas Wijck

Elisabeth Berry Drago

Cover illustration: Thomas Wijck, *An Alchemist in His Study*, c. 1660. Oil on panel. (Science History Institute, Philadelphia)

 $Cover\ design: Kok\ Korpershoek, Amsterdam$

Lay-out: Crius Group, Hulshout

ISBN 978 94 6298 649 7
e-ISBN 978 90 4853 777 8
DOI 10.5117/9789462986497
NUR 685

© E. Berry Drago / Amsterdam University Press B.V., Amsterdam 2019

All rights reserved. Without limiting the rights under copyright reserved above, no part of this book may be reproduced, stored in or introduced into a retrieval system, or transmitted, in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the written permission of both the copyright owner and the author of the book.

Every effort has been made to obtain permission to use all copyrighted illustrations reproduced in this book. Nonetheless, whosoever believes to have rights to this material is advised to contact the publisher.

Contents

Ac	cknowledgements	13
In	troduction	15
1.	Curiosity and Convention	27
	Authority and Secrecy	29
	Bruegel, Stradanus, and Beyond: Pictorial Precedents	37
2.	Thomas Wijck, "Artful" and "Ingenious"	59
	The Young Wijck	63
	An Expanding Market	71
	Wijck's Reputation	89
3.	Wijck's Alchemical Artisans	97
	Chronology	99
	The Alchemist as Paterfamilias	106
	The Alchemist as Artisan	122
	The Alchemist as Scholar	131
4.	An Experiment in Haarlem	149
	Practical Alchemy in Wijck's Networks	152
	Van Eyck, Goltzius, and the Model of the Experimental Artist	163
	Representing Alchemy in Haarlem	171
5.	The Artist's Laboratories Abroad	183
	Alchemy, Magic, and "Secrets" in Rome and Naples	185
	Elite Alchemy and Experiment in London	192
	The "Foreign" Alchemist	206
6.	The Master of Nature	215
	Oil Painting and the Art-Alchemy Debate	219
	Making and Representing Pigments	225
	Alchemy, Artistry, and Identity	239
Ер	ilogue	257
Bil	bliography	263
In	dex	275

Color Plates

Plate 1: Thomas Wijck, The Alchemist, c. 1650-1660. Oil on panel. (Rijksmuseum, Amsterdam) Plate 2: Adriaen van Ostade, The Painter's Studio, c. 1670-1675. Oil on panel. (Rijksmuseum, Amsterdam) Plate 3: Thomas Wijck, *Alchemist*, c. 1670-1677. Oil on panel. (Science History Institute, Philadelphia) Plate 4: David Teniers the Younger, Alchemist with Book and Crucible, c. 1640-1670. Oil on panel. (Science History Institute, Philadelphia) Thomas Wijck, Kitchen Interior, c. 1650-1670. Oil on Plate 5: canvas, laid on panel. (The Walters Art Museum, Baltimore) Plate 6: Thomas Wijck (attributed), Vision of Saint Dominic, c. 1650-1670. Oil on panel. (Private Collection; Photo © Christie's Images / Bridgeman Images) Thomas Wijck, *View of the Bay of Naples with Orientals* Plate 7: and an Antique Statue, c. 1670. Oil on canvas. (Ham House, Richmond-on-Thames / ©National Trust Images) Plate 8: Thomas Wijck, *An Alchemist at Work, with a Mother by* a Cradle Beyond, c. 1645-1660. Oil on panel. (Science History Institute, Philadelphia) Plate 9: Thomas Wijck, Washerwoman in a Courtyard, c. 1645-1660. Oil on canvas. (National Museum, Warsaw) Thomas Wijck, *The Scholar*, c. 1645-1660. Oil on panel. Plate 10: (Science History Institute, Philadelphia) Plate 11: Jan Miense Molenaer, Saying Grace, c. 1640-1668. Oil on panel. (Rijksmuseum, Amsterdam) Plate 12: Thomas Wijck, An Alchemist in His Study, c. 1660. Oil on panel. (Science History Institute, Philadelphia) Plate 13: Thomas Wijck, The Alchemist in His Study with a Woman Making Lace, c. 1650-1670. Oil on panel. (Science History Institute, Philadelphia) Plate 14: Thomas Wijck, *The Alchemist*, c. 1660. Oil on canvas. (Staatliches Museum, Schwerin) Thomas Wijck, The Alchemist, c. 1660-1677. Oil on Plate 15: panel. (Mauritshuis, The Hague) Plate 16: Thomas Wijck, *Interior with an Alchemist*, c. 1660-1677. Oil on panel. (Wellcome Collection, London)

Plate 17: Thomas Wijck, An Alchemist, c. 1670. Oil on panel. (Ham House, Richmond-upon-Thames / ©National Trust Images) Plate 18: Thomas Wijck, An Alchemist in Eastern Dress, c. 1670. Oil on canvas. (Ham House, Richmond-upon-Thames / ©National Trust Images) Plate 19: Thomas Wijck, Alchemist and Family, c. 1660-1670. Oil on canvas. (Science History Institute, Philadelphia) Plate 20: Thomas Wijck, The Alchemist, c. 1650-1670. Oil on panel. (© The Fitzwilliam Museum, Cambridge) Plate 21: Hendrik Goltzius, Sine Cerere et Libero friget Venus (Without Ceres and Bacchus, Venus Would Freeze), c. 1600-1603. Ink and oil on canvas. (Philadelphia Museum of Art, Philadelphia / Purchased with the Mr. and Mrs. Walter H. Annenberg Fund for Major Acquisitions, the Henry P. McIlhenny Fund in memory of Frances P. McIlhenny, bequest (by exchange) of Mr. and Mrs. Herbert C. Morris, and gift (by exchange) of Frank and Alice Osborn, 1990 / 1990-100-1) Plate 22: Adriaen van Ostade, *An Alchemist*, c. 1661. Oil on panel. (HIP / National Gallery, London / Art Resource, NY) Plate 23: Cornelis Bega, The Alchemist, c. 1663. Oil on panel. (Getty Museum, Los Angeles / Digital image courtesy of the Getty's Open Content Program) Plate 24: Cornelis Bega, The Alchemist, c. 1663. Oil on canvas,

mounted on panel. (From the Collection of Ethel and Martin Wunsch / National Gallery, Washington, DC)

Plate 25: Thomas Wijck, *The Alchemist and Death*, c. 1660. Oil on panel. (Collection of Alfred and Isabel Bader, Milwaukee / Photo: John Glembin)

Plate 26: Pieter van Laer, *Self-Portrait with Magic Scene*, c. 1635-1637. Oil on canvas. (Image courtesy of The Leiden Collection, New York)

Plate 27: Thomas Wijck, *Italians in a Cloister Court*, c. 1650. Oil on canvas. (Philadelphia Museum of Art, Philadelphia / John G. Johnson Collection, 1917 / Cat. 612)

Plate 28: Thomas Wijck, *View of a Levantine Port*, c. 1650-1677. Oil on canvas. (Rijksmuseum, Amsterdam)

Plate 29: Thomas Wijck, *Alchemist*, c. 1660-1677. Oil on panel. (The State Hermitage Museum, St. Petersburg / Photograph © The State Hermitage Museum, Photo: Konstantin Sinyavsky)

Plate 30:	Thomas Wijck, Warehouse at a Southern (Levantine)	
	Harbor, c. 1640-1677. Oil on canvas. (Staatliches	
DI .	Museum, Schwerin)	
Plate 31:	Job Berckheyde, Merchant of Colors, c. 1670-1690. Oil	
	on panel. (BPK Bildagentur / Museum der Bildenden	
	Kunste, Leipzig / Photo: Ursula Gerstenberger / Art	
DI.	Resource, NY)	
Plate 32a:	Johannes Jelgerhuis, <i>The Distillery of Apothecary A.</i>	
	d'Ailly, c. 1818. Oil on canvas. (Pendants) (Rijksmuseum,	
DI (I	Amsterdam)	
Plate 32b:	Johannes Jelgerhuis, <i>The Distillery of Apothecary A.</i>	
	d'Ailly, c. 1818. Oil on canvas. (Pendants) (Rijksmuseum,	
	Amsterdam)	
List of Fig	THEOC	
LIST OF TAE	guies	
Fig. 0.1:	Philips Galle after Pieter Bruegel the Elder, <i>The Alche-</i>	
<u> </u>	mist, c. 1558. Engraving. (Metropolitan Museum of Art,	
	New York)	18
Fig. 1.1:	Theodore Galle after Jan van der Straet (Johannes	
	Stradanus), Distillatio, c. 1590. Engraving. (Science	
	History Institute, Philadelphia)	38
Fig. 1.2:	Mattheus van Helmont, An Alchemist at Work,	
	c. 1650-1670. Oil on canvas. (Science History Institute,	
	Philadelphia)	41
Fig. 1.3:	Adriaen van de Venne, <i>Rijcke-Armoede</i> , c. 1632. Oil on	
	panel. (Science History Institute, Philadelphia)	43
Fig. 1.4:	Illustration of an Alchemist. In the Margarita	
	Philosophica, Gregor Reisch, Freiburg 1503. (Othmer	
	Library of Chemical History, Science History Institute,	
	Philadelphia)	45
Fig. 1.5:	Illustration of an Assaying Laboratory. In the <i>Aula</i>	
	Subterranea, Lazarus Ercker, Prague 1574. (Othmer	
	Library of Chemical History, Science History Institute,	
	Philadelphia)	46
Fig. 1.6:	Pieter van der Heyden after Pieter Bruegel the Elder,	
	The Stone Operation, c. 1559. Engraving. (Metropolitan	
	Museum of Art, New York)	48

Fig. 1.7:	David Teniers the Younger, <i>Interior of a Laboratory</i> with an Alchemist, c. 1640-1670. Oil on canvas. (Private	
	Collection)	53
Fig. 1.8:	Pierre Francois Basan after David Teniers the Younger, Le Plaisir des Fous, c. 1750-1790. Engraving. (Science	
	History Institute, Philadelphia)	55
Fig. 2.1:	Thomas Wijck, A Weaver at Work, c. 1640-1650. Ink and	00
O	chalk drawing. (Rijksmuseum, Amsterdam)	60
Fig. 2.2:	Joerg Breu the Elder, <i>Emblem of Washing & Bleaching</i> ,	
O	c. 1531. In the <i>Splendour Solis</i> , Salomon Trismosin. (BPK	
	Bildagentur / Kupferstichkabinett, Staatliche Museen,	
	Berlin / Art Resource, NY)	70
Fig. 2.3:	Frans Hals, Young Man and Woman in an Inn ("Yonker	•
0 0	Ramp and His Sweetheart"), c. 1623. Oil on canvas.	
	(Metropolitan Museum of Art, New York)	74
Fig. 2.4:	Judith Leyster, <i>Jolly Drinker</i> , c. 1629. Oil on canvas.	
Ü	(Rijksmuseum, Amsterdam)	74
Fig. 2.5:	Quirin van Brekelenkam, <i>The Tailor's Shop</i> , c. 1661. Oil	
	on panel. (Rijksmuseum, Amsterdam)	76
Fig. 2.6:	Illustration of anatomical studies (eyes, etc). In the	
	Polygraphice, William Salmon, London 1685. (Othmer	
	Library of Chemical History, Science History Institute,	
	Philadelphia)	80
Fig. 2.7:	Theodor Galle after Jan van der Straet (Johannes	
	Stradanus), Color Olivi, c. 1590. Engraving. (Metropoli-	
	tan Museum of Art, New York)	81
Fig. 2.8:	Adriaen van Ostade, Peasant Family in a Cottage,	
	c. 1661. Oil on panel. (Rose-Marie and Eijk van Otterloo	
	Collection / Photograph © 2019 Museum of Fine Arts,	
	Boston)	85
Fig. 2.9:	Adriaen van Ostade, <i>The Barn</i> , c. 1647. Etching. (Rijks-	
	museum, Amsterdam)	86
Fig. 2.10:	Thomas Wijck, <i>The Well</i> , c. 1650-1670. Etching. (Metro-	
	politan Museum of Art, New York)	87
Fig. 2.11:	Thomas Wijck, <i>The Colonnade</i> , c. 1650-1670. Etching.	
	(Metropolitan Museum of Art, New York)	88
Fig. 2.12:	William Pether after Joseph Wright of Derby, <i>The</i>	
	Alchemist Discovering Phosphorus, original c. 1771.	
	Mezzotint. (Science History Institute, Philadelphia)	93

Fig. 3.1:	Andries Both, <i>Travelers by a Well</i> , c. 1635-1641. Oil	
	on wood panel, 23.7 x 34.0 cm. (National Gallery of	
	Victoria, Melbourne / Presented through The Art Foundation of Victoria by Dr. Orda Poynton CMC	
	Foundation of Victoria by Dr. Orde Poynton CMG, Fellow, 1980)	101
Eig o o	- ,	101
Fig. 3.2:	Adriaen van Ostade, <i>Dancing Couple</i> , c. 1625-1640. Oil	
Ein an	on panel. (Rijksmuseum, Amsterdam)	103
Fig. 3.3:	Cornelis Bega, Saying Grace, c. 1663. Oil on canvas.	
D.	(Rijksmuseum, Amsterdam)	105
Fig. 3.4:	Hendrik Sorgh, Family of Eeuwout Prins, c. 1661. Oil on	
	panel. (Historical Museum, Rotterdam)	107
Fig. 3.5:	Gerard ter Borch, <i>The Grinder's Family</i> , c. 1653. Oil on	
	canvas. (BPK Bildagentur / Staatliche Museum, Berlin /	_
	Photo: Joerg P. Anders / Art Resource, NY)	108
Fig. 3.6:	Matthias Merian, <i>Emblem 3</i> . In the <i>Atalanta Fugiens</i> ,	
	Michael Maier, Oppenheim 1618. (Othmer Library of	
	Chemical History, Science History Institute, Philadelphia)	110
Fig. 3.7:	Richard Brakenburgh, An Alchemist's Workshop with	
	Children Playing, c. 1670-1700. Oil on canvas. (Science	
	History Institute, Philadelphia)	113
Fig. 3.8:	Nicolaes Maes, <i>The Lacemaker</i> , c. 1656. Oil on canvas.	
	(Metropolitan Museum of Art, New York)	115
Fig. 3.9:	Michiel van Musscher, Portrait of Michiel Comans II	
	and his wife Elisabeth van der Meersch, c. 1669. Oil on	
	canvas. (Rijksmuseum, Amsterdam)	117
Fig. 3.10:	Quiringh Gerritsz. van Brekelenkam, Fisherman and	
	His Wife in an Interior, c. 1657. Oil on panel. (Image	
	courtesy of The Leiden Collection, New York)	120
Fig. 3.11:	Gerrit Dou, Self-Portrait, c. 1665. Oil on panel. (Metro-	
	politan Museum of Art, New York)	123
Fig. 3.12:	Illustration of alchemical cosmology. In the <i>Utriusque</i>	
	Cosmi, Maioris scilicet et Minoris, metaphysica, physica,	
	atque technica Historia, Robert Fludd, Oppenheim	
	1617-1618. (Othmer Library of Chemical History, Science	
	History Institute, Philadelphia)	129
Fig. 3.13:	Illustration of water bath apparatus. In the <i>Summa</i>	
3 - 2	perfectionis magisterii, Pseudo-Geber, Venice 1542.	
	(Othmer Library of Chemical History, Science History	
	Institute, Philadelphia)	137
	± /	٠.

Follower of Gerrit Dou, An Alchemist in His Laboratory,	
c. 1600-1700. Oil on panel. (Science History Institute,	
Philadelphia)	141
Cornelis Dusart after David Teniers the Younger, <i>The</i>	
_	
	173
· ,	
	175
· · · · · · · · · · · · · · · · · · ·	176
- ·	•
·	
~	186
,	
	186
,	
3 3	
	196
,	Ü
•	201
,	
	207
,	•
• •	
· · · · · · · · · · · · · · · · · · ·	
	208
•	
9	
•	209
Illustration of vermillion vessels and furnaces from the	
Pekstok Manuscript, c. 1691. (15030: 77900 – Pekstok,	
- · · · · · · · · · · · · · · · · · · ·	233
Illustration of vermillion vessels and furnaces from the	20
Pieter / Amsterdam City Archives)	233
	c. 1600-1700. Oil on panel. (Science History Institute, Philadelphia) Cornelis Dusart after David Teniers the Younger, <i>The Alchemist</i> , c. 1660-1704. Black chalk on paper. (Science History Institute, Philadelphia) Hendrick Heerschop, <i>The Alchemist's Experiment Takes Fire</i> , c. 1687. Oil on canvas, laid on board. (Science History Institute, Philadelphia) Hendrick Heerschop, <i>An Alchemist and his Assistant</i> , c. 1680. Oil on canvas. (Science History Institute, Philadelphia) Thomas Wijck, <i>Santa Maria Liberatrice</i> , c. 1640-1677. Ink wash and graphite on paper. (Rijksmuseum, Amsterdam) Thomas Wijck, <i>A Forge</i> , c. 1660. Etching. (Metropolitan Museum of Art, New York) Thomas Wijck, <i>View of the Waterhouse and Old St. Paul's</i> , <i>London</i> , c. 1663. Ink wash and graphite on paper. (Paul Mellon Collection, Yale Center for British Art, New Haven) John Slezer and Jan Wijck, <i>Plan of the Ham House Grounds and Gardens</i> , c. 1672-1675. Ink on paper. (National Trust Collections UK / @National Trust Images/John Hammond) Willem Drost, <i>Standing Oriental</i> , c. 1650-1655. Ink on paper. (Rijksmuseum, Amsterdam) Emanuel de Witte, <i>Courtyard of the Old Exchange in Amsterdam</i> , c. 1653. Oil on panel. (BPK Bildagentur / Museum Boijmans Van Beuningen, Rotterdam / Art Resource, NY) David Teniers the Younger, <i>Guardroom with the Deliverance of Saint Peter</i> , c. 1645-1647. Oil on panel. (Metropolitan Museum of Art, New York) Illustration of vermillion vessels and furnaces from the Pekstok Manuscript, c. 1691. (15030: 77900 – Pekstok, Pieter / Amsterdam City Archives) Illustration of vermillion vessels and furnaces from the Pekstok Manuscript, c. 1691. (15030: 77900 – Pekstok,

Fig. 6.3:	After Adriaen van Ostade, Painter in His Studio,	
	c. 1645-1649. Etching with drypoint and engraving.	
	(Rijksmuseum, Amsterdam)	245
Fig. 6.4:	Thomas Wijck, Sketch of a Painter at Work in his Studio,	
	c. 1650-1677. Ink wash, chalk, and gouache on paper.	
	(Metropolitan Museum of Art, New York)	247
Fig. 6.5:	Rembrandt van Rijn, <i>The Artist in His Studio</i> , c. 1628.	
	Oil on panel. ((Zoe Oliver Sherman Collection given	
	in memory of Lillie Oliver Poor / Photograph © 2019	
	Museum of Fine Arts, Boston)	248
Fig. 6.6:	Jan Miense Molenaer, Painter in His Studio, Painting a	
	Musical Company, c. 1631. Oil on canvas. (BPK Bild-	
	agentur / Gemaeldegalerie, Staatliche Museen, Berlin /	
	Photo: Joerg P. Anders / Art Resource, NY)	249
Fig. 6.7:	Attributed to Gerrit Dou, Portrait of an Artist at his	
	Easel in a Studio, c. 1628-1629. Oil on panel. (Image	
	courtesy of The Leiden Collection, New York)	251

Acknowledgements

I have been fortunate to have the support of remarkable mentors as this project took shape. I am deeply grateful to my advisor, Perry Chapman of the University of Delaware, for her keen insight, wisdom, and continual encouragement. Many thanks to Bruce Moran of the University of Nevada for his thoughtful approaches to materials and expertise, as well as to David Stone and Sandy Isenstadt of the University of Delaware.

The guidance and dedication of the editorial team of Amsterdam University Press has been critical in bringing this book from proposal to reality: special thanks to Erika Gaffney, as well as to Inge van der Bijl and Thijs Weststeijn. My gratitude also extends to the staff and fellows (both past and present) of the Science History Institute (formerly the Chemical Heritage Foundation), the space where this work was conceived and revised. Particular thanks to the Institute's Beckman Center for their support through the Allington Dissertation Fellowship; as well as to Carin Berkowitz, Rebecca Ortenberg, Erin McLeary, Gillian Maguire, Nicole Cook, Lloyd DeWitt, Amanda Shields, and many others whose collegeality and kindness are treasured.

Sincere gratitude to the Historians of Netherlandish Art for their generous support of this publication through their 2018 Fellowship Grant; as well as to the University of Delaware for their support of my research and writing through their Sewell C. Biggs Dissertation Award.

Special thanks to Kristin DeGhetaldi and Brian Baade of the University of Delaware for their generosity in sharing expertise in conservation science, and to the Winterthur Scientific Research and Analysis Laboratory for granting access to analysis technologies. Alan Phenix, Scientist at the Getty Conservation Institute, and Peter Lukehart, Associate Dean of CASVA, made vital contributions to my understanding of specific artists and their materials.

Profoundest love and appreciation to my friends and family, who make demanding work not only possible but even delightful. Thanks most of all to my husband, Daniel: it is impossible to imagine this creative journey without you.

Introduction

Abstract

The paintings of Thomas Wijck (1616-1677) offer one of the largest sources for alchemical imagery dating from the seventeenth century, yet they have long remained unexamined as a coherent body. Alchemical thought suffused the early modern world, from lofty theoretical cosmologies to practical and applied chemical knowledge. It also appeared within the painter's studio, in the preparation of acids and pigments, and the modeling of material transformation. The world of the artisan and that of the alchemist were more closely linked than previously understood, and the works of Thomas Wijck therefore have much to teach us about the parallel natures of artistry and experiment.

Keywords: Alchemy, Early Modern, Dutch Art, Painting, History of Art, History of Science

When alchemy is invoked in a conversation about art, it is usually meant to imply that something mysterious is happening. This was surely the feeling behind the nineteenth-century painter and critic Eugène Fromentin's declaration that the contemporaries of the great seventeenth-century Dutch master Rembrandt van Rijn regarded him with admiration, but also "not without some anxiety," for both the painter and his extraordinary, "enigmatic" works carried "the air of an alchemist." In discussions of modern art dealing with the subconscious and unconscious, Carl Jung, the Swiss founder of analytical psychology, features prominently for his promotion of a spiritual alchemy rooted in the collective unconscious, through which many "secrets" and symbols pass through the human psyche on its journey towards wholeness. Such uses of alchemy share an aura of inscrutability,

1 "Ses œuvres étaient même, en leurs procédés, des énigmes. On admirait non sans quelque inquiétude, on le suivait sans trop le comprendre. C'était surtout à son travail qu'il avait des airs d'alchimiste." Eugène Fromentin. Les Maîtres d'Autrefois: Belgique-Hollande. (Paris: E. Plon, 1876): 406.

a mystical feeling generated by a belief that art itself, and especially art about transformation—chemical or spiritual—gestures at an unknowable divine. This treatment of alchemy can be provocative, and it can be useful, but this book is concerned with another kind of alchemy altogether: by this I mean the alchemy of workshops, kitchens, and studios that filled the early modern European world, a network of arts, labors, and experimentations that were practical, complex, and ubiquitous.

The period between about 1450 and 1700 marked a watershed or "Golden Age" for Western alchemy. Sometimes called *chymistry*, ² early modern alchemy might be described as a set of speculative tools by which individuals manipulated their environments. Many people, looking backwards at alchemy from the nineteenth and early twentieth centuries, associated it with occultism, superstition, and magic. This once-common modern supposition—that past alchemy was little more than failed sorcery—was partially formed out of embarrassment in hindsight. Later chemists, armed with knowledge of the atom, made attempts to distance themselves from alchemy's attempts to transmute lead into gold, or to manufacture a "universal elixir" that could purify all it touched. It is true that atomic theory disrupted alchemy's continuity, yet it is also true that the discipline of chemistry originated in alchemy, its literal and figurative precursor. Contemporary chemistry would not have developed as it did without the foundational work performed in alchemical investigations of metals and other natural materials, and in the chymist's belief that the introduction of chemical medicines could alter the human body in desirable ways.3 Alchemy was much more than an esoteric quest for immortality or a delusional search for riches. Alchemists explored matter, testing and observing the characteristic actions and interactions of organic and inorganic substances, from mercury, copper, and lead to oil, resin, and bone. They were engaged in commercial enterprises that ranged from mining to medicine to dye-making to distilling, and far beyond. Their practices belie later romantic fantasies of mystical hermits: alchemists were employed by social elites and patronized by consumers at every level, and alchemical texts circulated theory and instruction across a broad spectrum of society, from artisans and tradesmen to scholars and princes. 4 Contemporary historians of science working to redeem alchemy's utility have also emphasized its

² For a discussion of the terms *alchemy* and *chymistry*, see William R. Newman and Lawrence Principe. "Alchemy vs. Chemistry: The Etymological Origins of a Historiographic Mistake." *Early Science and Medicine* 3 (1998): 32-65.

³ Bruce Moran. Distilling Knowledge: Alchemy, Chemistry, and the Scientific Revolution. (Cambridge: Harvard University Press, 2005): 182-189.

⁴ Ibid. 53-59.

diversity: in reality there was not one but many *alchemies*, a broad web of practitioners who sought different things for different reasons, using a fluid and adaptable body of methods and principles.⁵

Curious and somewhat polarizing, alchemy also made for a popular subject in art. Another kind of Golden Age—an unprecedented artistic boom—was unfolding during the late sixteenth and seventeenth centuries in the newly formed Dutch Republic. Travelers there were astonished at the volume and quality of artworks they saw displayed, even those in common homes and workshops: Peter Mundy, an Englishman touring the country in 1640, wrote that "As For [...] the affection off people to pictures, I thincke none other goe beeyond them [...] blacksmithes, Coblers, etts., will have some picture or other by their Forge and in their stalle [sic]."6 As the art market grew, artists competed in developing appealing new subjects and genres, or adapting old ones to accommodate changing tastes. Images of alchemists at work appear to have offered a pleasurable novelty. In particular, they could provide good satire: picture a peasant dreaming of turning lead into gold, and transmutation is easily re-figured as sinful, obsessive greed. Paint a dandified quack with a vial of questionable medicine, and the persona of the counterfeit physician and false alchemist merge easily. Pictorial inventions such as these were borrowed and reworked endlessly, quickly ossifying into convention.

These satirical pictures of alchemy have accustomed art historians, historians of science, and the broader public to seeing alchemy mocked. This is partially due to the believed origin of Dutch alchemical imagery: an engraving after Pieter Bruegel the Elder titled *The Alchemist*, which was published in Antwerp after 1558 (Figure 0.1). Bruegel's scene, like his entire oeuvre, provided inspiration for a generation of Netherlandish artists seeking sources for comedy, social drama, wit, and allegory. His ragged, gangling alchemist and mugging jester peer into their crucibles while children play unattended in empty cupboards. A glimpse through an open window shows a secondary scene of the poorhouse to which this doomed family must someday retreat. Though it was highly influential, this print and its imitations have been overly emphasized as a kind of *prima materia* ("first matter," an alchemical term signifying the vital ingredient from which all materials were thought to derive) that underlies all images of alchemy. In

⁵ Stanton J. Linden, ed. *The Alchemy Reader: From Hermes Trismegistus to Isaac Newton.* (New York: Cambridge University Press, 2003): 4-5.

⁶ Mundy, Peter. *The Travels of Peter Mundy in Europe and Asia*, 1608-1667, Volume 4. Richard Carnac Temple, ed. (London: Cambridge University for the Hakluyt Society, 1925): 70.

⁷ Linden, Alchemy Reader, 13.



Fig. 0.1: Philips Galle after Pieter Bruegel the Elder, *The Alchemist*, c. 1558. Engraving. (Metropolitan Museum of Art, New York)

other words, this interpretation has confused the representation of alchemy with the satirizing of alchemy, as if portrayal was equivalent to ridicule.

In particular, these interpretations have often relied on the inclusion of broken vessels and glassware as unequivocally negative signs: clear indicators of failure, financial ruin, and the wasteful pursuit of delusional ideas. Wayne Franits has described the display of cracked or heavily used objects in alchemical workrooms as "the tangible evidence of past experiments gone awry." Within the study of Dutch art, a perceived emphasis on order and cleanliness, and the iconographical importance placed upon individual objects within genre scenes, have likely contributed to the conclusion that artistic communities were deeply skeptical of alchemy, and that these attitudes were expressed through images of disorganization and disaster. As Jane Russell Corbett writes, "It is difficult to respond to the general disorder of these workrooms as anything other than a negative comment."

⁸ Wayne Franits, *Dutch Seventeenth-Century Genre Painting*. (New Haven: Yale University Press, 2004): 142.

⁹ Corbett, "Convention and Change in Seventeenth-Century Depictions of Alchemists," in *Art and Alchemy.* Jacob Wamberg, ed. (Copenhagen: Museum Tusculanum, 2005): 254.

With this in mind, as we view Thomas Wijck's *The Alchemist* (Plate 1), we might find ourselves searching for signs of a clear moral judgement against alchemy. But humble though this workroom may be, there are no "puffers" working their bellows before a furnace. There are no gold coins being melted down into crucibles, sacrificed in a vain experiment while a hungry wife and children stand mourning the loss. There are no crude fools, and no obvious victims. Instead, we find ourselves looking at a cluttered workshop that looks very much like other, more familiar kinds of workshops: smithies or carpenters' shops or artists' studios. Places where new things are being tried, and old messes and mistakes are being made and re-made, but something useful and productive and intriguing is happening.

Wijck's alchemist is no shabby, bankrupt peasant at a furnace: he is a scholar. With his neatly trimmed beard and fur robe, and his air of sober contemplation, he more closely resembles the countless portraits of Erasmus of Rotterdam produced by Holbein and Dürer and Massijs that circulated in printed copies, or the philosophers and students represented by Rembrandt and his pupil Gerrit Dou. With two brief lines of white paint, Wijck deftly indicates the quill pen that the alchemist holds, poised above the surface of his paper. A file of notes or letters has been pierced and hung beside him by the window, 10 showing that Wijck's alchemist is a reader, a writer, and likely an editor: a communicator, and an interpreter. His are the behaviors of scholarship. Yet Wijck's alchemist is not limited to the realm of theory: he lifts his eyes away from the page to glance down at a young boy holding a basin up for inspection. The boy's apron hangs nearly to his knees, and leather or canvas gaiters circle his legs. A heavy mortar and pestle rest behind him, surrounded by a coarse dark substance that might be charcoal, earth, or ground mineral. This all suggests that he may be engaged in one of the initial stages in an alchemical process, calcination, which the thirteenth-century philosopher and theologian Albertus Magnus called "the pulverizing of substances by fire."11 Calcined substances were ground together with salt or mercury, then heated and ground again to remove moisture and refine via crystallization. The alchemist's appraising glance, and the boy's offering up of his labor for scrutiny, tells us that the alchemist is the authority in

¹⁰ Dutch paintings of the period often showed letters and records hung from the wall by a hook or string; letter-racks, pin-boards, and other storage solutions were less widely represented. See Dror Wahrman. Mr. Collier's Letter Racks: A Tale of Art and Illusion at the Threshold of the Modern Information Age. (Oxford: Oxford University Press, 2012): 230-231.

¹¹ Quoted in Linden, Alchemy Reader, 106.

these matters, guiding the work in progress. So he is also the master of this workshop: an expert, and a teacher.

He also appears to be a husband and a father. A woman sits in the background with a small bundle of cloth on her lap: her hair is tucked neatly into a cap, and her right hand is lifted in a gesture that suggests she holds needle and thread. In Dutch imagery, sewing has long been recognized as a signal of feminine virtue and the orderly maintenance of the household. Kneeling at her feet is another young boy, bending over a woven basket. Though the floor is littered with clutter, there is no impression of the sort of social disorder that turned the household of Bruegel's alchemist topsyturvy. The placid atmosphere and the diligent performance of gendered behaviors—scholarship and mending—as well as reinforcement of the alchemist as teacher and head of household, strongly suggest that this alchemist's world is ordered in ways that would have been familiar and acceptable to Wijck's seventeenth-century audience.

Yet the Rijksmuseum *Alchemist* offers paradox. Mess and detritus fill the picture's foreground. Papers and ragged-edged books are strewn across the room, barrels and vessels stand propped against the hearth and wall, and stains of raw material mark the floor and smear the lip of a nearby copper basin. At the far left, a large earthenware vessel displays a cracked rim. This overflowing largesse of clutter signifies more than a collection of typical household scraps: vessels and books represent the laborious manual and mental workings of alchemy. Wijck's careful handling and tonal highlights draw the viewer's eye and keep their attention on the debris spilling across the front of the scene. This indicates the importance of understanding Wijck's mess to an understanding of the painting as a whole. By the logic of many interpretations, this messy workspace and its dirtied, broken tools indicate a failed worker. Yet the respectability and diligence of the family Wijck presents challenge a simplistic reading of their clutter. The presence of paradoxical signs—order and disorder, chaos and harmony—suggests the picture's true sophistication. The room is both kitchen and study, living space and laboratory. Texts are one way of seeking and producing knowledge; workshop practice another. A cluttered workshop may signal failure, or else remind us of the messy side of productive and useful work. Rather than straightforward evidence of folly and ruin, a broken vessel is a mutable sign—a complicated marker of alchemy's transformative potential and its material demands.

These pictorial ambiguities parallel the ambivalence with which alchemy, as an empirical and experimental art, was greeted. Alchemy was a fascinating and economically important art, yet its practice stimulated anxieties

and questions such as why did alchemists keep secrets? Why did they use metaphor and allegory to describe their processes—what were they trying to hide? Many alchemists did not belong to guilds or possess university degrees attesting to their mastery. Were they masters or authorities? Fakes or frauds? Should they be considered a type of craftsworker, similar to a metalsmith or a weaver, or did the experimental knowledge they wielded set them apart? Wijck's images actively participate in both forming and responding to period questions regarding who alchemists were, what alchemists knew, and how they should be regarded—not only as empirics, but as members of society.

The Rijksmuseum *Alchemist* is also a painting that bears signs of its own making. Painters kept workshops just as alchemists did: their workrooms were filled with apprentices needing guidance, unfinished works in progress, and signs of labor and also of creativity inquiry. Wijck's scene draws attention to the craft that produced it, in its depiction of textures and reflected light. Profuse with scattered still-life vignettes and objects at every corner, the picture requires close looking and close interpretation—down to the folded edges of folios and the water-stained beams of the ceiling. It invites comparisons not only with other pictures of alchemy, but with other images of workrooms and other types of material experts, particularly artists and artisans: this similarity is manifest when Wijck's picture is set beside *The* Painter's Studio (Plate 2), a work by his teacher, Adriaen van Ostade of Haarlem. The painter's rustic studio is littered with brushes and tools, letters and sketches, props and draped fabric. A young apprentice and a journeyman assistant labor away at repetitive manual tasks, while the painter is at work on a landscape, evidence of the master's imaginative faculties. Technical skill, guidance of an apprentice, and an intellectual dimension to the work are present in both depictions. Though the arts they represent differ, both Wijck and Van Ostade formulate the practice of artisanal trade as one that requires material know-how as well as creative vision. Until now, such parallels have remained largely unexamined.

Wijck presents a challenge to past readings of alchemical imagery for two primary reasons: first, the frequency with which he chose to picture alchemy, and second, the unconventional seriousness with which he did it. Many artists of Wijck's generation and even his school painted or etched an alchemist at work at least once or twice during the course of their careers, but he painted it repeatedly across three decades, leaving behind nearly forty paintings of alchemists attributed to him, and many more attributed "after" or to a "follower of." Wijck was a respected master and a successful marketer, but his studio was a modest one and his best-known pupil was his son, Jan. The total number of known paintings by Wijck which have

survived is estimated to be less than one hundred and twenty.¹² Images of alchemy therefore constitute a substantial percentage of his life's work. These alchemical pictures appear to have been key to Wijck's success and high reputation. The seventeenth-century Dutch artist and biographer of other artists, Arnold Houbraken, praised Wijck's alchemical scenes as "wittily painted" and "artfully suitable," and deemed the artist himself "ingenious." Horace Walpole, the famous English antiquarian, spared numerous compliments for Wijck but stated definitely that his "best pieces" were paintings of "chymists and their laboratories." ¹¹⁴

This book is the first to explore the alchemical paintings of Thomas Wijck as a coherent body. Long neglected as an erstwhile Bamboccianti, a fringe member of Dutch circles in Rome, Wijck emerges anew as a leader in his artistic community at home in Haarlem, and an innovator in his curious pictorial subject. He provides a vital link between the interconnected histories of Golden Age art and early modern chemical enterprise. His painted laboratories not only demonstrate his mastery over visualizing and interpreting the natural world, but claim a virtuosic ability to also capture alchemy's explorations of nature. Both artists and alchemists laid claim to divine inspiration or genius that set their art apart from others, but alchemy and art also shared concrete ties: the vast majority of painters made common use of distilled oils and solvents as well as alchemically produced pigments such as vermillion and verdigris. From alchemy's beginnings, the line between studio and laboratory was porous: in the West, the origins of alchemy lie in metalworkers' and artisans' techniques for mimicking nature. Ancient papyrus recipe books record processes for metals, glass, ceramics, gems, and other goods valued in Greco-Roman Egypt; these practices eventually contributed to the emergence of natural philosophy as a distinct discipline. 15 Artists' workshops, like alchemists' laboratories, were sites of innovation and experimentation, locations where the boundaries of knowledge were continually observed, tested, and modified. Wijck's

¹² I have compiled this approximation through research in the RKD's databases, as well as collections internationally. As there is no catalogue raisonné, and because Wijck signed only a portion of his attributed works, attributions remain uncertain in many cases.

¹³ Arnold Houbraken, *De groote schouburgh der Nederlantsche konstschilders en schilderessen.* (1976 Photographic Reprint of the 1753 Second Edition.) (Amsterdam: B.M. Israël Amsterdam, 1976): 16

¹⁴ Horace Walpole. *Anecdotes of Painting in England, Vol. III* (1828 reprint). (London: The Shakespeare Press, 1828): 266.

¹⁵ William R. Newman. *Promethean Ambitions: Alchemy and the Quest to Perfect Nature*. (Chicago: University of Chicago Press, 2004): 24-33.

skillful transformation of his (alchemically made) materials into works of art that mimicked or "improved" reality echoes the desires of alchemists to combine elements of the natural world into new and perfected forms.

Wijck's alchemical corpus forces us to confront established ideas about how, and why, painters represented natural philosophy and emerging science during the seventeenth century. When seeking science in art, we often cite the use of the camera obscura or the contributions of artist-naturalists to botany and microscopy. But alchemy's long divorce from the history of science, and its re-integration, has separated images such as Wijck's from the narrative. They are not depictions of observed natural phenomena, such as typological drawings of minute fauna or recordings of air-pump experiments. The experimental practitioners Wijck depicts do not fit neatly under the later name of "chemist," as if they were simply very early participants of the post-Enlightenment chemical revolution. Instead, Wijck's alchemists are hybrid scholar-artisans whose closest analogue is, strikingly, the artist himself. Alchemy's transformative potential, and its relationship to the visual arts in general—and to painting specifically—may therefore hold the key to its relevance as an artistic subject. Alchemy was simultaneously a rival and a partner to painters, who competed with it to conquer nature while sharing in its knowledge and techniques. As a theme, alchemy offered an opportunity to explore mimesis, genesis, and the performance of material change. By representing alchemy's products and processes in naturalistic images that highlighted his own artistic skill, Wijck's oeuvre argues for art as the *ne plus* ultra imitator of the natural world. This book is an effort to place Wijck back into his context within a greater Netherlandish continuum of illusionistic rhetoric and practice, where his works are not merely picturesque scenes of alchemy's former glory, but illuminating entries into the long dialogue between artistry and experiment.

The question of a market or audience for alchemical paintings has also received little study, despite the vast number of alchemical pictures produced during the seventeenth century. This void of attention leaves us without a satisfactory answer to several questions, among them: why did so many artists choose to represent alchemy, and who were they representing it for? Alchemy's past ubiquity is not sufficient to explain its popularity in art, as Dutch artists were highly selective in their subjects. Other trades, industries, and technologies considered vital and beneficial received comparatively little attention in painting or print.¹⁶ This book profiles a number of Wijck's

¹⁶ Kettering, "Men at Work in Dutch Art, or Keeping One's Nose to the Grindstone." The Art Bulletin 89, No. 4 (2007): 708.

patrons, finding a demand for his works among successful tradesmen and artisans whose work bordered alchemical knowledge, as well as nobles and courtiers engaged with chemical theories themselves. In such cases, professional interests may have prompted a desire to own alchemical subjects, while wealthy individuals who patronized alchemists may have wished to own paintings demonstrating their tastes and investments. Broadening interest in natural philosophy across nearly all levels of European society further widens the possible pool of interested collectors.

The rise of alchemical pictures during the Dutch Golden Age, an era of expanding artistic self-consciousness, reinforces the mutuality of artistic and alchemical knowledge. More crucially for Wijck, alchemy's parallels with art—specifically in the imitation and transformation of natural materials—offer a uniquely potent subject by which to form an artistic persona. His naturalistic mode of painting, particularly painting in oils, argues for his mastery over nature and materials, while his innovations in subject matter demonstrate his insistent modernity and development of a professional "brand." While alchemical scenes have long been viewed as primarily moralizing, formulaic, and clichéd, I argue instead that the alchemist can be a powerful subject for self-construction by the artist. In Wijck's case, alchemy provided a curious and novel theme that cemented his reputation as an "ingenious" creator.

I do not argue for a re-evaluation of Wijck as a generator of new natural knowledge, in the vein of other artist-naturalists such as Jacques de Gheyn II or Maria Sibylla Merian, or the artist-anatomists of the Renaissance. Rather, I argue for a new appreciation of Wijck's powerful role as a communicator of practices. Alchemy's unusual place among established disciplines—between new empirical "science" and old artisanal traditions, between divinely inspired art and tedious labor, between respectable trade and esoteric secret—contributed to its complicated reception within society. Wijck's paintings model alchemy as both intriguing and useful. His images open new space for dialogue on alchemy's utility, legitimacy, and deep ties to artistry and creativity. They draw connections between the productive work of alchemists and other makers—and between the knowledge of one expert and another.

Before training as an art historian, I trained as an artist, and my interest in materials has endured. One of the first images of an alchemist at work that I encountered was also by Wijck: his *Alchemist* of about 1670 (Plate 3). Here, the vials and jars and copper basins are not props in a comedy of social errors, but central players—even stars. They litter the foreground of the picture insistently, demanding the viewer's attention to their chips

and scuffs, their cracks and stains and holes, the torn and folded pages of the books and papers sitting amongst them on the floor. The studious calm of the alchemist sitting in the midst of all this vocal clutter drew me instinctively. It appealed to my sense-memories of the studio, the cutting scent of solvents and the feeling of chalk coating my skin. Anyone who has ever tried to make something by hand, and dirtied their kitchen or their basement by doing so, could find aspects of Wijck's picture familiar: the scattered notes and dog-eared books, the jars and vials left precariously on the edges of shelves and tables, the baskets and basins left half-full of some substance or other. The work left half-done, the work ongoing, and the work yet to come. The deeper question of whether or not Wijck's paintings have a unique or unusual argument to make about alchemy will be explored in the following pages. But from the first glance, it appears that the pictured microcosm Wijck presents is a world of work and curiosity: a world of inquiry, of attempting. A world of broken things, of doubt, and also of trying again. A world of transformation, but not in a final sense: a world where the borders are still being learned and tested. His images are picture of process. To understand them we must turn away from mystery, and towards making.