

**Theophilus' *On Diverse Arts*:
The Persona of the Artist and the Production of Art in the Twelfth Century**

by

Heidi C. Gearhart

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(History of Art)
in The University of Michigan
2010

Doctoral Committee:

Professor Elizabeth L. Sears, Chair
Associate Professor Megan L. Holmes
Associate Professor Helmut Puff
Assistant Professor Achim Timmermann

© ————— Heidi C. Gearhart 2010
All Rights Reserved

Dedication

For my family, without whom this would not be.
In memory of Aileen Brink and Lucile Gearhart, whose wisdom inspired me;
and in memory of Brian Cornwell, whose courage and love changed us all.
I will not forget.

Acknowledgments

Many wonderful people helped me complete this project. Scholars, colleagues, librarians and friends aided me with tasks large and small, and contributed their time, energy, and encouragement. I am particularly grateful to my advisor, Professor Elizabeth Sears, who guided me through this project and gave so generously of her time, energy and expertise. Through many conversations, comments, and suggestions, she helped me see the dissertation in a deeper, clearer light, and her encouragement, understanding, and patient assistance enabled me to shape the dissertation, finally, into a whole. I have been privileged as well to have a supportive committee; Professors Megan Holmes, Helmut Puff, and Achim Timmermann continually gave much time and thought to the project, and their comments and suggestions improved the dissertation greatly. I am grateful for their assistance.

Generous funding from the Department of the History of Art at the University of Michigan made much of my work on this project possible. In addition, a research fellowship from the Turcihin Foundation, given through the Department of History of Art, enabled one of my first forays into dissertation research, while a fellowship from the Rackham School of Graduate Studies funded the final months of dissertation writing.

A year of research in Belgium was funded by the Belgian American Educational

Foundation, and I am especially grateful to Emile L. Boulpaep and Marie-Claude Hayoit for their assistance and support during that year. I am honored to be a part of the history of the Foundation and to be a member of the “boat” of 2006. In Belgium, I was fortunate to work with Professor Barbara Baert at the Katholieke Universiteit Leuven, and appreciate her time, effort, and many thoughtful comments. By her generous invitation, I participated in a manuscript workshop organized through the universities Leuven, Lille, and the Courtauld Institute; the comments and suggestions of professors and colleagues during this workshop were a huge help, and I owe particular thanks to Professors John Lowden and Christian Heck; to Kathryn Gerry and finally to Laura Cleaver, who has been an invaluable colleague, and given many insightful comments on Theophilus, on pedagogy, on Rupert of Deutz.

I spent two years in residence at the Zentralinstitut für Kunstgeschichte in Munich, thanks to a generous fellowship from the Kress Foundation. While there, I was privileged to have the support of distinguished scholars and to know colleagues whose work inspired and challenged me. Prof. Dr. Wolfgang Augustyn not only gave valuable support to me as an American visitor, but his comments and suggestions regarding Theophilus gave me new perspectives on the project. From the first day I arrived at the Institute, Dr. Iris Lauterbach was a tremendous help and resource, for which I am greatly appreciative. From my colleagues at the Institute I learned much, and I am grateful for the kindness, patience, and stimulating conversation of Benjamin Sommer, Anja Weisenseel, Michael Stöneberg, Manuel Teget-Welz, Li Töppe, Julia Weber, Jonas Beyer, and Claudia Schwaighofer. I was honored to work alongside fine American colleagues in Belgium and Munich, and benefited much from their company and expertise. Jessica Keating and Susannah Fisher helped me and stimulated me with conversations of reliquaries, automata, and the beautiful Codex

Aureus. Victoria Sancho Lobis has been both a colleague and dear friend; I am ever grateful not only for her challenging thoughts, insightful questions, and sharp mind, but also for her bright demeanor, her strength, her encouragement.

During research and travel I have been fortunate to meet some wonderful scholars, and their thoughts and suggestions have made it, in one way or another, into this dissertation. At the Metropolitan Museum of Art, Peter Barnet and Pete Dandridge gave me many helpful insights, and I learned much from conversations with them, and I owe many thanks to Christine Brennan for her kind support. At the Museum of Fine Arts Boston, I was privileged to work under Marietta Cambareri and the late Tracey Albainy, who taught me much, and alongside Frederick Ilchman, whose kind advice and encouragement has been invaluable. In Brisbane, Australia, I had the wonderful opportunity to discuss the philosophy of Augustine with Edward Morgan, and I am grateful for his help on the topic. Elizabeth Nogrady, in New York, has been a constant companion on this journey, and her positive outlook and wise comments were of tremendous value.

The manuscripts of Theophilus are spread all over Europe, and I was given generous help from librarians, scholars and staff members in all of these places. For their assistance I am especially grateful to Christian Heitzmann at the Herzog-August Bibliothek in Wolfenbüttel; Andreas Fingernagel at the Österreichische Nationalbibliothek in Vienna; Pascal Trousse at the Bibliothèque royale de Belgique / Koninklijke Bibliotheek van België in Brussels; Christoph Mackert at the Universitätsbibliothek Leipzig; Pierre-Jean Riamond at the Bibliothèque nationale de France, Paris; Michal Broda at the Wroclaw University Library; Elaine Pordes at the British Library, London; Sally Speirs and Christine Ferdinand at Magdalene College, Oxford; Julian Reid at Corpus Christi College, Oxford; Jayne

Ringrose at the University Library, Cambridge; Tricia Boyd at the Edinburgh University Library; Susy Marcon at the Biblioteca Nazionale Marciana, Venice; Rosella Pecchioli in the Biblioteca Nazionale Centrale, Florence; Wolfgang-Valentin Ikas, at the Bayerische Staatsbibliothek, Munich; Heinz Ristory, at the Stiftsbibliothek Klosterneuburg; Mireille Vial at the Bibliothèque interuniversitaire section médecine, Ecole de Médecine, Montpellier; and the staff at the Rakow Research Library, Corning Museum of Glass, in Corning, New York. I am also grateful to the librarians and staff at the Zentralinstitut für Kunstgeschichte, Munich, at the Central Library and the Maurits Sabbe Theological Library at the Katholieke Universiteit Leuven, at the Andover-Harvard Theological Library, and at the Burke Library at Union Theological Seminary, New York. Finally, I owe many thanks to the staff of the Fine Arts Library at University of Michigan, who for many years happily aided my research needs, and to Denise Edmund at Rackham Graduate School.

The department and professors at Michigan went beyond the call of duty in helping me, giving time and expertise. In coursework and conversation I greatly benefited from the help of Ilene Forsyth, Sussan Babaie, Margaret Root, Pat Simons, Celeste Brusati, Susan Siegfried and Alex Potts; in Medieval studies and Classical studies I was lucky to work with Diane Hughes, Patrick Nold, Michael Bonner, and Donka Markus. I began my studies of medieval art at Tufts University, and my professors there have since offered continuous support, especially Professors Eva Hoffman, Cristelle Baskins, and Eric Rosenberg; I owe many thanks especially to Professor Madeline Caviness, who first set me on the path to study medieval art. My introduction to art history was at Pomona College, and I am ever appreciative of Professors George Gorse, Judson Emerick, and Diana Linden, who showed me what an engaging field it could be.

My colleagues at Michigan have become great friends, and they have inspired me and helped me in countless ways. My thanks go to Katie Hornstein, Christina Chang, and Heather Badamo, who were a fine cohort, impressive in many ways; to Catherine McCurrach, who guided me in all things medieval, Noel Schiller, who helped ease my transition to Belgium. I owe many thanks to Chris DeFay, JP Park, Angela Ho, Diana Presciutti, Heather Flaherty and Kirsten Olds, who exuded unfailing calm and gave much helpful advice, to Katie Brion, Melanie Sympton, Kathy Zarur, Silvia Tita, Bea Zengotitabengoa, and Kristine Ronan for their support and conversation, and to Phillip Guilbeau, who patiently took notes at my defense. Beyond our art history department I learned much from Bob Rich, Ari Friedlander, and Mark Lotito, and I owe special thanks to Dimitri Krallis, Gavin Hollis, and Meredith Mira, who not only kept me going but kept me on the right track. Finally, my thanks go to Monica Huerta, for her insights, her comments, for brainstorming, and countless conversations, for her constant positive outlook and humor. Without her I am sure, it would have been a far more difficult, and far less pleasant, process.

Friends and family at home and the world over have helped me in countless ways. In Munich, I owe innumerable thanks to Mike Marquès and Sabine Erneker for their unending encouragement and positive outlook; to Jemma and Sascha Klengel, for sharp wit, new insights, and warm encouragement; to Hanna Sophie Welker, for her consistent cheer and hospitality; and to Raynald Martin, Michael Fausel, Lisa Hanley, Patrick Brennan, Oliver Detjen, and Ingrid Fridman, for their wonderful support and humor; and to Susan McDonald, for helpful conversation about the nature of art-making and the virtues of labor.

Dear friends and colleagues the world over contributed much. In Belgium, I was fortunate to know a group of extraordinary women whose studies of philosophy put the

Middle Ages into context and whose wisdom guided me: Iina Koskinen, Defne Cizacka, Cordelia Rizzo, and Tonia Tatti. In Oxford I was grateful for the hospitality and kindness of Bryce and Eunice McLeod. In London, I learned much from Julian Butler; in Antwerp and Melbourne, Gordon Carlyle; in New York, Alex W. Jeffers; in Boston, Charlie Burckmyer; in Marblehead, Amy Lucia; in San Francisco, Bob Schwartz; in New York, Myles Sorensen; and in San Francisco, Dominic Archibald. Even in illness, Brian Cornwell offered deep and kind encouragement, and Maggie and Al Cornwell have continued this kindness in his stead. To all of them I am ever grateful. Lastly, from Abidjan to Paris, from Barcelona to London to Brussels, Virginia Stern has been a dear friend, and I am ever grateful for her optimism, her sense of adventure, her constant challenge to rise to the next step.

My second home in Europe was in France; there, in the suburbs of Paris, Charles and Laurana Mitchelmore not only gave me coffee and speculoos and a place to rest, but endless encouragement, guidance, and conversation patiently guiding me through difficulties both personal and professional over many years. It was in their home that I finished preparing the text for the defense, and I am profoundly thankful to them for their support. I am also indebted to their daughter Jen Trimble, for her calm expert advice in the last days of writing.

Lastly, I offer deep and heartfelt thanks to my family. I owe much to Ken and Peg Bassion, who offered their tireless encouragement and constant optimism, and especially to Kirsten Bassion, who patiently listened, again and again, and who offered invaluable insight on numerous artistic techniques. And finally, this dissertation would not exist without the help of my sister, who is perhaps most responsible for getting me hooked on art history and who never lets me settle; and my mother and father, whose unfailing, constant support in so many ways made the project possible.

Table of Contents

Dedication.....	ii
Acknowledgments.....	iii
List of Figures.....	xi
List of Diagrams.....	xvi
List of Appendices.....	xvii
List of Abbreviations.....	xviii

Chapter One

Introduction.....	1
Manuscript Witnesses.....	9
Collecting, Copying, and Reading <i>On Diverse Arts</i>	15
Theophilus in the Libraries: Classifying and Categorizing <i>On Diverse Arts</i>	22
Around Attribution: The State of the Question.....	33
Overview and Approach.....	42

Chapter Two

Pedagogy and Exegesis in <i>On Diverse Arts</i>: Learning for the Mind and Spirit.....	47
The Wolfenbüttel Manuscript	48
Unity and Structure: The Hierarchy of Objects and Materials.....	60
The Artisan's Progress.....	72
Book One: Humility and Fear of the Lord.....	82
Book Two: Fortitude, Counsel, and Understanding.....	97
Book Three: Wisdom and Perfection.....	102
Reading Technique in the Object: Seeing with Theophilus.....	106
Changing Pedagogy for the Advancing Student: From Mimesis to Invention.....	109
Theophilus as a Pedagogue.....	113
The Triumph of the Church: An Eschatological Trajectory.....	120

Chapter Three

The Vienna Manuscript and the Remembrance of an Artist.....	123
The Vienna Manuscript: Memory of a Name and Memory of a Style.....	124
The Paderborn Charter: Remembering an Agreement, and an Artist's Work as an Item of Exchange.....	136
The Necrologies: Remembrance of an Artist, Remembrance of a Monk.....	139

The Paderborn Objects: Recognizable Style and Ottonian Precedent.....	141
Local Networks: From Politics, to Trade, to Art Object.....	159
The Modoaldus Cross: Materiality, Ornament, and Memory.....	167
The Legacy of Roger and the Idea of Roger: From Tradition to Memory.....	169
Chapter Four	
Artisanal Work and Monastic Virtue: The Labor of the Artist.....	175
The Harley Manuscript.....	176
<i>Imago Dei</i> and Man’s Potential: Restoration and Learning as a Process.....	181
Choosing Virtue.....	187
The Iconography of Choice: Monastic Life and the Pursuit of Virtue.....	194
Defining Good Labor: Acting with Virtue and Avoiding Sin.....	203
The Visual Trace of Procedure and Skill.....	213
Chapter Five	
<i>On Diverse Arts</i> and its Literary Afterlife: Recipe Book, Encyclopedia, or Didactic	
Text?.....	226
The Cambridge Manuscript: A Collection of Knowledge for Spiritual Work.....	228
Theophilus and Didactic Literature: Vitruvius, Agriculture, and Medicine.....	235
From the Earth to the Artist, Knowing the Nature of Material.....	247
Books for Religious Purpose: Theophilus and the Religious Handbook.....	252
Later Manuscripts and the Dissemination of the Text: <i>On Diverse Arts</i> and the “Recipe Books”.....	256
Conclusion.....	264
Figures.....	267
Diagrams.....	331
Appendices.....	333
Bibliography.....	390

List of Figures

1. Wolfenbüttel, Herzog-August Bibliothek cod. Guelph Gudianus lat. 2°69,
fol. 86r: incipit Theophilus, *De diversis artibus*, mid-twelfth century.....267
 - a. Wolfenbüttel, Herzog-August Bibliothek cod. Guelph Gudianus
lat. 2°69, fol. 1r: incipit Vitruvius, *De architectura*, eleventh century...268
 - b. Wolfenbüttel, Herzog-August Bibliothek cod. Guelph Gudianus
lat. 2°69, ff. 85v-86r: explicit Vitruvius, *De architectura (verso)*,
and incipit Theophilus, *De diversis artibus (recto)*..... 269
2. Vienna, Österreichische Nationalbibliothek MS 2527, fol. 1r: incipit
Theophilus, *De diversis artibus*, mid-twelfth century..... 270
3. London, British Library, Harley MS 3915, fol. 9v: incipit Theophilus,
De diversis artibus, early thirteenth century.....271
4. Portable altar of Henry of Werl, Bishop of Paderborn, Roger of
Helmarshausen, c. 1107-1122. Paderborn, Diözesanmuseum..... 272
5. Portable altar from the abbey of Abdinghof, Roger of Helmarshausen,
c. 1107-1122. Paderborn Diözesanmuseum.....272
6. Enger Cross, Roger of Helmarshausen, c. 1107-1122.
Berlin Kunstgewerbemuseum, front view..... 273
 - a. Enger cross, reverse..... 274
7. Crucifix, Roger of Helmarshausen, c. 1107-1122. Frankfurt,
Museum für Angewandte Kunst. 275
8. Modoaldus Cross, Roger of Helmarshausen, before 1107. Cologne,
Schnütgen Museum.276
9. Bookcover, Roger of Helmarshausen, before 1107. Cathedral of Trier,
Domschatz.277

10. London, British Library Add. MS 28106-7 (Stavelot Bible) vol. 1, fol. 161r: Initial, Jerome's preface to Jeremiah, Roger of Helmarshausen(?), Stavelot, 1097.	278
11. Crucifix, circle of Roger of Helmarshausen, first half, twelfth century. Cologne, Schnütgen Museum.	279
12. Cross, circle of Roger of Helmarshausen, 1130-1150. Fritzlar, Domschatz.....	280
13. Portable altar from the abbey of Stavelot, 1150-1160. Brussels, Musées royaux d'art et d'histoire..	281
a. Portable altar of the abbey of Stavelot, 1150-1160. Underside, with émail brun.....	282
14. Unidentified prophet, wall painting fragment from the upper gallery of St. Gereon, last quarter, eleventh century. Cologne, St. Gereon.....	283
15. Gozbertus Censer, c. 1100. Cathedral of Trier, Domschatz.	284
16. Wilten Chalice, German, c. 1150-1160. Vienna, Kunsthistorisches Museum....	285
17. Church of St. Pantaleon, Cologne, tenth century with later rebuilding and post-war restoration.	286
18. Corning, New York, Corning Museum of Glass, Rakow Library Phillipps MS 3715 (<i>Mappae clavicula</i>), fol. 56v; Flanders, twelfth century.....	287
19. Chevet, abbey church of St. Denis, c. 1144.	288
a. Anagogical window, chevet, abbey Church of St-Denis, c. 1144.....	289
20. Head of Christ, glass fragment, abbey church of Sts. Peter and Paul, Wissembourg, late eleventh or early twelfth century. Strasbourg, Musée d'œuvre Notre-Dame.....	290
21. Altar of Henry of Werl, Roger of Helmarshausen, c. 1107-1122. Paderborn, Diözesanmuseum. Detail, top panel.	291
22. Portable altar of the abbey of Stavelot, 1150-1160. Brussels, Musées royaux d'art et d'histoire. Top panel.....	292
23. Christ in Majesty, wall painting, apse, abbey church of Sts. Peter and Paul, 1120. Reichenau, Niederzell.....	293

24. Reliquary of St. Alexander, abbey of Stavelot, 1145. Brussels, Musées royaux d'art et d'histoire.....	294
a. Reliquary of St. Alexander, front view with enamels: Sts. Seventius, Alexander, Theodolus.	295
b. Reliquary of St. Alexander, side view (right) with detail of enamels: <i>humilitas, pietas, scientia</i>	296
c. Reliquary of St. Alexander, back view with detail of enamels: <i>fortitudo, sapientia, consilium</i>	297
d. Reliquary of St. Alexander, side view (left) with detail of enamels: <i>intelligentia, sapientia, perfectio</i>	298
25. Temptation of Adam and Eve, wall painting, chancel, church of St. Botolph, early twelfth century. Hardham, Sussex, England.....	299
26. London, British Library Add. MS 28106-7 (Stavelot Bible) vol. II, fol. 136r: Christ in Majesty; Stavelot, 1097.....	300
27. London, British Library Cotton Claudius B IV (Old English Hexateuch) fol. 16v: Noah and the Rainbow; Canterbury, second quarter eleventh century.....	301
28. Noah and the Rainbow, Chartres cathedral, bay 47, north aisle (Noah window), early thirteenth century.....	302
29. Paderborn, Erzbistumarchiv, Urkunden Generalvikariat Nr. 11 (Paderborn Charter); first third, thirteenth century.....	303
30. Vienna MS 2527, fol. 1r, detail.....	304
31. Stuttgart, Hauptstaatsarchiv, J522B B Xa 588: Fragment of a Lectionary, 1009-1036.....	304
32. Vienna MS 2527, insert between fols. 70v-71r: drawing of acanthus leaves.....	305
33. Altar of Henry of Werl, Roger of Helmarshausen, c. 1107-1122. Paderborn, Diözesanmuseum. Copper plate, underside.....	306
a. Altar of Henry of Werl, copper plate, underside, detail	307
34. Bookcover of Abbess Theophanu, 1039–1058. Treasury, Essen Minster.....	308

35. Cross of Theophanu given to the abbey at Essen, 1039-1058. Treasury, Essen Minster.....	309
36. Vienna Österreichische Nationalbibliothek MS 2527, fol. 52v: sketch.....	310
37. Stavelot Triptych, abbey of Stavelot, mid-twelfth century. Morgan Library, New York.....	311
a. Stavelot Triptych, detail of cross-hatching.....	312
38. Altar of Henry of Werl, Roger of Helmarshausen, c. 1107-1122. Paderborn, Diözesanmuseum, detail, end panel with Christ with Saints Kilian and Liborius.....	313
39. Münster, Staatsarchiv MS I, 133 (<i>Liber vitae</i> of the abbey of Corvey) fol. 26r: Necrology of Corvey and Helmarshausen monks, 1158.....	314
40. Altar of Henry of Werl, end panel, Virgin with John and Jacob.....	315
41. Altar of Henry of Werl, side panel with Bartholomew and Phillip.....	316
42. Enger cross, reverse side, detail, ox of Luke.....	317
43. Enger cross, reverse side, detail, angel of Matthew.....	317
44. Enger cross, reverse side, detail, eagle of John.....	318
45. Enger cross, reverse side, detail, lion of Mark.	318
46. Portable altar of Gertrude, c. 1045, Cleveland, Cleveland Museum of Art.....	319
47. Portable altar from Fulda or Bamberg (?), first third, eleventh century. Paris, Musée National de Moyen-Âge – Thermes de Cluny.....	319
48. Portable altar from Ippendorf, 1075-1100. Paris, Musée du Louvre.....	320
49. Portable altar of Gertrude, detail, top panel.....	321
50. Portable altar of the abbey of Abdinghof, detail, top panel.....	321
51. Portable altar of the abbey of Abdinghof, side panel with Blaise of Sebaste.....	322
52. Portable altar of the abbey of Abdinghof, side panel with Felix of Aquilea.....	322

53. Portable altar of the abbey of Abdinghof, detail, end panel with St. Peter and the martyrdom of a monk.....	323
54. Portable altar of the abbey of Abdinghof, detail, end panel with martyrdom of St. Paul.....	323
55. Cross of Lothair, c. 985-991. Aachen, Palatine Chapel, Treasury.....	324
56. Imperial Cross of the Holy Roman Empire, 1024. Vienna, Imperial Treasury (Schatzkammer).....	324
57. Osnabrück cross, late eleventh century. Osnabrück, Cathedral Treasury.....	325
58. Enger cross, detail of lower arm, with gem settings and filigree.....	326
59. Codex Aureus of Echternach, abbey of Echternach, 985. Nuremberg, Germanisches Nationalmuseum Hs. 156142.....	327
60. Reliquary of St. Andrew's Sandal, 997-983. Cathedral of Trier, Domschatz....	327
61. Altar of Henry of Werl, detail of filigree, top panel.....	328
62. Censer cover, Godefried of Huy (?), early twelfth century. New York, Metropolitan Museum of Art, The Cloisters.....	328
63. Cain and Abel, bronze door of Bernward, c. 1015. Hildesheim Cathedral.....	329
64. Healing of the Outcasts, bronze column of Bernward, c. 1015-1022. Hildesheim Cathedral.....	329
65. Bronze Font of Reiner of Huy, c. 1118. Liège, St. Bartelèmy.....	330

List of Diagrams

1. List of Manuscripts..... 331
2. Map of Rhine-Meuse Region.....332

List of Appendices

A.	Checklist of Extant Manuscripts of <i>On Diverse Arts</i>	333
	Vienna, Österreichisches Nationalbibliothek MS 2527.....	333
	Wolfenbüttel, Herzog-August Bibliothek Codex Guelph Gudianus lat. 2°69....	335
	London, British Library, Harley MS 3915.....	337
	Cambridge, University Library MS E e 6.39.....	340
	Brussels, Bibliothèque Royale de Belgique/Koninklijke Bibliotheek van België MS 10147-58.....	344
	Leipzig, Universitätsbibliothek MS 1157.....	349
	London, British Library Egerton MS 840a.....	353
	Paris, Bibliothèque Nationale de France, MS nouv. acq. lat. 1422.....	355
	London, British Library Sloane MS 781.....	357
	London, British Library Sloane MS 1754.....	360
	Oxford, Magdalen College MS 173.....	363
	London, British Library Harley MS 273.....	366
	Wolfenbüttel, Herzog-August Bibliothek, Guelph Helmst. 1127 (MS Lat. 1234).....	368
	Amiens Bibliothèque Municipale Lescalopier 46.....	371
	Klosterneuburg, Augustiner-Chorherrenstift, CL 331.....	373
	Paris, Bibliothèque Nationale, MS lat. 6741.....	376
	Vienna, Österreichisches Nationalbibliothek MS 11236.....	378
	Venice, Bibliotheca Marciana, Lat. VI, 199 (3597).....	380
	Wroclaw, Universitätsbibliothek, IV 8° 9.....	381
	Montpellier, École de Médecine MS lat. 277.....	383
	Munich, Bayerische Staatsbibliothek Clm. 444.....	384
	Florence, Bibliotheca Nazionale MS Palat. 951.....	385
	Amiens, Bibliothèque Municipale, Lescalopier MS 47D.....	387
	Amiens, Bibliothèque Municipale, MS 117.....	388
B.	Transcription of Paderborn, Erzbistumarchiv, Urkunden Generalvikariat Nr. 11.....	389

List of Abbreviations

BL

British Library, London.

BnF

Bibliothèque nationale de France, Paris.

BR/KB

Bibliothèque Royale de Belgique / Koninklijke Bibliotheek van België.

CCSL

Corpus Christianorum, Series Latina. Turnhout: Brepols, 1953-.

CCCM

Corpus Christianorum, Continuatio Mediaevalis. Turnhout: Brepols. 1971-.

DDA

Theophilus. *De diversis artibus*. Trans. and ed. C.R. Dodwell. New York: Thomas Nelson and Sons, Ltd., 1961.

HAB

Herzog-August Bibliothek, Wolfenbüttel.

MGH SS

Monumenta Germaniae Historica, Scriptores rerum germanicarum. Munich: Monumenta Germaniae Historica, 1984-.

ÖNB

Österreichische Nationalbibliothek, Vienna.

PL

Patrologia Latina. Ed. J.-P. Migne. Paris: Garnier, 1844-1855 and 1862-1865. Electronic rpt. Alexandria, VA: Chadwyck-Healey, 1995.

Chapter One

Introduction

One of the only complete treatises on art to survive from the High Middle Ages was written by a twelfth-century monk under the pseudonym Theophilus. Known as *De diversis artibus*, or, in English as *On Diverse Arts*, the text comprises three books, each devoted to a different medium: the first describes the arts of painting, the second the arts of glass, and the third the arts of metalwork. Each book, containing detailed descriptions of processes, is introduced by a prologue that treats the religious dimensions of image-making. The text has long been an important source for the study of medieval art: as early as 1774, the writer, critic, and philosopher Gotthold Ephraim Lessing cited Theophilus' description of pigments applied with oil in an essay on the history of oil painting, using it as proof that the technique was known before the age of van Eyck.¹ Despite the centuries of study, it is not known to this day just why *On Diverse Arts* was written, by whom or for whom, or whether or not it was actively used as an instruction book at all.²

¹ Gotthold Ephraim Lessing, *Vom Alter der Oelmalerey aus dem Theophilus Presbyter* (Brunswick: Buchhandlung des Fürstlichen Waisenhauses, 1774), reprinted as "Vom Alter der Oelmalerei aus dem Theophilus Presbyter," in *Gesammelte Werke VIII* (Leipzig: Göschen, 1856) 285-336.

² See, for example the essay by Andreas Speer and Hiltrud Westermann-Angerhausen, "Ein Handbuch mittelalterlicher Kunst? Zu einer relecture der *Schedula diversarum artium*," in *Schatzkunst am Aufgang der Romanik: Der Paderborner Dom-Tragaltar und sein Umkreis*, Christoph Stiegemann and Hiltrud Westermann-Angerhausen, eds. (Munich: Hirmer, 2006) 249-258.

In this dissertation, I look at the surviving manuscripts of the treatise to glean evidence for how the book was read and used. I argue that the work offered far more than a group of haphazardly assembled descriptions of artistic techniques; it should be seen as a coherent whole, a tightly structured treatise with an overarching narrative and argument. On the basis of a new reading of the text, coupled with examination of surviving objects and consideration of the local context in which *On Diverse Arts* was composed, I attempt to shed new light on the theory and practice of art making in the early twelfth century.

On Diverse Arts circulated broadly and was copied for hundreds of years, but the vagaries of its transmission have yet to be traced. Twenty-five manuscripts containing varying portions of the text survive; now kept in libraries across Europe, they are of German, French, English, and Italian origin (See Diagram 1, List of Manuscripts). The two earliest manuscripts were transcribed in northern Germany and date to the mid-twelfth century; both are complete, containing all three books and all three prologues.³ Six other nearly complete manuscripts survive, which contain all three books and most of the prologues.⁴ There are also nine incomplete copies, which hold at least two-thirds of a book, as well as eight manuscripts which contain excerpts of varying length.⁵ The

³ Vienna, Österreichische Nationalbibliothek MS 2527; Wolfenbüttel, Herzog-August Bibliothek cod. Guelph Gudianus lat. 2^o69.

⁴ London, British Library Harley MS 3915; Leipzig, Universitätsbibliothek MS 1157 (formerly Karl Marx Universitätsbibliothek MS 1144); Paris, Bibliothèque Nationale de France MS nouv. acq. lat. 1422; Amiens, Bibliothèque Municipale MS fonds Lescalopier 46; Venice, Biblioteca Nazionale Marciana MS lat. VI, 199 (3597); Vienna, ÖNB MS 11236.

⁵ Partial copies are as follows: Cambridge, University Library MS Ee. 6.39 (formerly Cambridge University Library MS 1131); Brussels, Bibliothèque Royale de Belgique / Koninklijke Bibliotheek van België MS 10147-58; Paris, BnF MS lat. 6741; London, British Library Egerton MS 840A; Wolfenbüttel, Herzog-August Bibliothek, Guelph Helmst. 1127 (Wolf. MS 1234); Klosterneuburg, Augustiner-Chorherrenstift cod. 331; Oxford, Magdalene College MS 173; Florence, Biblioteca Nazionale Centrale MS Palat. 951; London, British Library Sloane MS 781.

Manuscripts containing excerpts from the text are: Munich, Bayerische Staatsbibliothek Clm. 444; London,

manuscripts range in date from the twelfth to the seventeenth century, and two manuscript copies of the text were made in the nineteenth century, both now in Amiens.⁶ The first edition of the text was prepared by Lessing, and published posthumously by Christian Leiste in 1781.⁷ Since then, the text has been widely published and translated from the original Latin into eight languages.⁸ There has not, however, been a full-length study of the tract.

A central task of the dissertation is the contextualization of *On Diverse Arts* within twelfth-century monastic, artistic, and literary culture. Although it is often cited as a medieval source, the relation of *On Diverse Arts* to other texts produced in its milieu and its possible functions have yet to be seriously investigated. The text instead has fed long held assumptions about the role, status, and work of the medieval artist, and even

British Library Harley MS 273; London, British Library Sloane MS 1754; Wrocław, Biblioteka Uniwersyteka, MS IV 8^o9; Montpellier, Ecole de Médecine MS lat. 277; Oxford, Corpus Christi College 125; Paris, BnF, MS lat. 11212; BnF MS lat. 6830F. The excerpts contained in the Corpus Christi and these two latter Paris manuscripts contain chapters which are not exclusively attributable to Theophilus. In his introduction to his translation of Theophilus, C. R. Dodwell has argued more stringently, describing the chapters in the Corpus Christi manuscript as not ‘authentic Theophilus’ text; Theophilus, *De diversis artibus*, trans. C.R. Dodwell, (New York: Thomas Nelson and Sons, Ltd., 1961) lxx. The Paris manuscripts contain chapters that were published by Robert Hendrie as part of *On Diverse Arts* and included in the Harley manuscript: Theophilus Presbyter, *Theophilus, qui et Rugerus, presbyteri et monachi, libri III. de diversis artibus: seu Diversarum artium schedula*, ed., trans., R. Hendrie (London: J. Murray, 1847). These have also been attributed to the author Heraclius, and are included as chapters vii, viii in Ilg’s translation of that text, Heraclius, *Farben und Künsten der Römer*, Albert Ilg, trans., *Quellenschriften für Kunstgeschichte und Kunsttechnik des Mittelalters und der Renaissance*, 4 (Vienna: Wilhelm Braumüller, 1888) 35.

There are five manuscripts said by Rozelle Parker Johnson to possibly contain fragments, which are as follows: Dresden Sächsische Landesbibliothek J83; Rome, Vatican Reg. 2079; Rome, Vatican Urbin. 293; Vienna, ÖNB MS 5512; and Wolfenbüttel MS 4436. Johnson, “The Manuscripts of the *Schedula* of Theophilus Presbyter,” *Speculum* 13 / 1 (1938) 86-103; 87.

⁶ Amiens, Bibliothèque Municipale, L’Escalopier MSS 47 and 117.

⁷ Lessing, “Theophili Presbyteri *Diversarum Artium Schedula*,” ed. Christian Leiste, in *Zur Geschichte und Litteratur aus den Schätzen der Herzoglichen Bibliothek zu Wolfenbüttel* 6 (Brunswick: Waisenhaus, 1781).

⁸ There are numerous published editions of *On Diverse Arts*, and translations into English, German, French, Spanish, Polish, Hungarian, Italian, and Japanese. The primary English editions are Theophilus, *De diversis artibus*, ed. C.R. Dodwell as note 5, and Theophilus, *On Divers Arts, The Foremost Medieval Treatise on Painting, Glassmaking and Metalwork*, ed. John G. Hawthorne and Cyril Stanley Smith (New York: Dover, 1963). For a full list of translations see below, note 124.

what constitutes medieval art itself; these assumptions, in turn, have guided our appraisal of the text, so that when the artist of the period is described as a humble craftsman, seeking anonymity and practicing a craft in the service of the divine, *On Diverse Arts* is invoked as a straightforward witness. Because it is the only text of its kind to survive, there is little comparative material to steer our comprehension away from our own preconceptions. *On Diverse Arts* has been valued for its early date, its abundant technical information, and its completeness. It is often included in general studies of medieval art as one of few surviving primary sources on twelfth-century art, a complement to the writings of Bernard of Clairvaux or Abbot Suger of Saint Denis, and it is regularly cited as giving evidence of the mentality of the prototypical medieval monastic artist; perhaps most significantly, it has been used as a resource for those exploring the history of artistic techniques.⁹

⁹ For example, an excerpt of Theophilus is included in Caecilia Davis-Weyer, ed. *Early Medieval Art, 300-1150; Sources and Documents* (Englewood Cliffs, NJ: Prentice-Hall, 1971) 172-178. Theophilus is introduced as an example of the monastic artist by Andrew Martindale in *The Rise of the Artist in the Middle Ages and Early Renaissance* (London: Thames and Hudson, 1972) 66; Pamela Long, *Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance* (Baltimore: Johns Hopkins University Press, 2001) 85-88. The use of Theophilus as a source of technical information dates back to the first edition of the text by Lessing, in the eighteenth century, as in note 1; it is also included as a source for technical information by Julius von Schlosser, *Die Kunstliteratur, ein Handbuch zur Quellenkunde der neueren Kunstgeschichte* (Vienna: A. Schroll & Co., 1924, rpt. 1985) 22-25; this use has continued. For Theophilus as a source of information on metalworking practices, see Birgitte Bänsch, *Kölner Goldschmiedekunst um 1200. Muster und Modelle*, Ph.D. diss., Münster, 1986; and especially David Buckton, "Theophilus and Enamel," *Studies in Medieval Art and Architecture Presented to Peter Lasko*, ed. David Buckton and T. A. Heslop (Dover: Alan Sutton, 1994) 1-13. For stained glass, Donald Royce-Roll, "Twelfth-Century Stained Glass Technology," *Avista Forum* 10/11, no. 2/1 (1997/1998) 13-22; and idem, *The Importance of Two Twelfth-century Glass Texts, Theophilus' "De diversis artibus" and Eraclius' "De coloribus et artibus romanorum," for Understanding the Technology and the Colors of Romanesque Stained Glass*, Ph.D. diss., Cornell University, 1988. For painting techniques: Heinz Roosen-Runge, "Die Buchmalereirezepte des Theophilus," *Münchener Jahrbuch der bildenden Kunst* (1952/53) 159-171; and idem, "Die Farben- und Malrezepte des 1. Buches der *Schedula diversarum artium* des Theophilus Presbyter und die Buchmalerei des frühen Mittelalters," *Actes du XVII^{me} Congrès international d'histoire de l'art* (The Hague: Imprimerie Nationale des Pays-Bas, 1955) 221-228; and Michael Gullick, "A Bibliography of Medieval Painting Treatises," *Making the Medieval Book: Techniques of Production: Proceedings of the Fourth Conference of the Seminar in the History of the Book to 1500, Oxford, July 1992*, ed. Linda Brownrigg (Los Altos Hills, CA: Anderson-Lovelace, 1995) 241-244.

This reassessment of *On Diverse Arts* begins with an examination of the manuscripts and history of the tract in order to situate it generically; any analysis of Theophilus' book must begin with a look at its distinctive structure, for it is just this structure which has made the text so difficult to classify. Each of the three books of instructions is introduced by a prologue, yet the prologues and instructions seem to address very separate issues. The prologues are concerned with theology and matters spiritual and pedagogical, while the instructions concern techniques and matters practical. The first prologue opens with a statement of humility: the author introduces himself with a meaning-rich sobriquet as "Theophilus," the "lover of God," and proceeds, in each of the three prologues, to urge the artist to work with humility and piety.¹⁰ Using a sophisticated Latin, he draws on theological texts and invokes biblical examples ranging from the creation of man to the temple of Solomon. The prologues serve to introduce and summarize the techniques that will be described in the body of the text, and also contain the most direct statements about the place of the spirit in art making. In contrast, the instructions are technical: in a clear and concise prose they describe procedures for such wide-ranging tasks as mixing colors for painting beards or bodies, dyeing glass, or making a silver chalice.¹¹

My reading of the text reconciles the perceived incongruities in the text, directly challenging reductive notions of medieval craftsmanship and redirecting debates about the identity of the author. The supposed discrepancies between prologues and instructions in *On Diverse Arts* has led to questions as to whether Theophilus was, or was not, a

¹⁰ Theophilus, Prologue I; Dodwell, as note 5: 1. All quotations and references, unless otherwise specified, are taken from Dodwell's edition of the text.

¹¹ Theophilus, Book I, ch. 1: "The Mixing of Colours for Nude Bodies," Dodwell, as note 5: 5; Book II, ch. vii, "Yellow Glass," Dodwell, as note 5: 41; Book III, ch. xxvi, "Making the Smaller Chalice," Dodwell, as note 5: 76-79.

practicing craftsman.¹² It has been assumed that such technical instructions would have been written down by a craftsman for other craftsmen; at the same time, it has been thought that a craftsman would not have the education or wherewithal to write sophisticated theological prologues. This belief has made the two components seem very different, and they have often been treated separately; it has even been suggested that instructions and prologues were written at different times, or by two different people.¹³

I suggest that the author wrote instructions and prologues as a unit; I seek to shed light on the goals of Theophilus and the potential significance of art writing in the Middle Ages. My argument thus departs from previous scholarship, which has largely tended to approach the text either as a technical source or a religious statement. *On Diverse Arts* is often culled for technical information. Its instructions for the mixing of pigments, for example, have been much analyzed in terms of their chemical composition, and the treatise is usually discussed in relation to surviving collections of technical instructions --

¹² Dodwell, as note 5: xxxvi-xxxix; Smith and Hawthorne, as note 8: xxxiv-xxxv. Andrew Martindale unequivocally calls Theophilus an artist, as note 9, 66; as does Bruno Reudenbach, who argues that the text is oriented toward practicality, even if it borrows elements from legendary natural history as well: "Praxisorientierung und Theologie: Die Neubewertung der Werkkünste in *De diversis artibus* des Theophilus Presbyter," *Helmarshausen: Buchkultur und Goldschmiedekunst im Hochmittelalter*, ed. Ingrid Baumgärtner (Kassel: Euregioverlag, 2003) 199-218: 199-202. John van Engen, in "Theophilus Presbyter and Rupert of Deutz: the Manual Arts and Benedictine Theology in the Early Twelfth Century," *Viator* 11 (1980) 147-163, is concerned primarily with the religious beliefs of Theophilus, but accepts the idea that the author was a craftsman, 147. Peter Lasko, in "Roger of Helmarshausen, Author and Craftsman: Life, Sources of Style, and Iconography," *Objects, Images and the Word*, ed. Colum Hourihane (Princeton: Princeton University Press, 2003) 180-201; 181, writes: "There is a great deal of evidence – and it is now widely accepted – that Roger wrote the *De diversis artibus*, a textbook on all the arts which lays special emphasis in the longest chapter, on metalwork." In their recent article, Andreas Speer and Hiltrud Westermann-Angerhausen raised questions about the problem of Theophilus' authorship and identity: "Ein Handbuch mittelalterlicher Kunst?" as note 2; the standard argument against the possibility that Theophilus was a practicing craftsman was first articulated by Hermann Degering, "Theophilus Presbyter, qui et Rogerus," *Westfälische Studien, Beiträge zur Geschichte der Wissenschaft Kunst und Literatur in Westfalen, Alois Bömer zum 60 Geburtstag gewidmet* (Leipzig: Hiersemann, 1928) 248-262.

¹³ Lynn White, "Theophilus Redivivus," in *Technology and Culture* 5 (1964) 224-233. See especially 229-230, where it is argued that the third prologue was written separately from the rest of the text as a response to Bernard of Clairvaux; most recently, Silvia Bianca Tosatti, *Trattati medievali di tecniche artistiche* (Milan: Jaca Book, 2007) has argued that the prologues were written at least with the aid of a bishop or abbot, if not entirely by a second person, 61-96.

often dubbed “recipes” for their similarity to cooking recipes -- such as the *Mappae clavicula*, Heraclius’ *De coloribus et artibus romanorum* and the later *Lumen animae*.¹⁴ In an opposite vein, the prologues of *On Diverse Arts* have been interpreted as a defense against the ascetic’s rejection of art, as exemplified by the writings of the Cistercian Bernard of Clairvaux, or as a justification of luxury art in a mode similar to that of Abbot Suger of Saint-Denis. Thus the text of Theophilus has been seen to defend the presence of luxury arts in the Benedictine monastery, and it has often been suggested that the third prologue, which invokes the example of David, Solomon, and the embellishment of the Temple of Jerusalem as a model for the embellishment of the church, was a direct response to Cistercian criticism of lavish ecclesiastical art, or even, a direct response to the diatribes of the ascetic St. Bernard.¹⁵

The two most recent English translations of *On Diverse Arts* crystallize the debates over the text and define the questions about its function that will be addressed in this dissertation. Both translations were made in the 1960s, and both remain extremely

¹⁴ Mary P. Merrifield, ed., *Original Treatises, Dating from the Xiith to Xviiiith Centuries on the Arts of Painting, in Oil, Miniature, Mosaic, and on Glass; of Gilding, Dyeing, and the Preparation of Colours and Artificial Gems* (London: J. Murray, 1849); Daniel V. Thompson, “Trial Index to Some Unpublished Sources for the History of Mediaeval Craftsmanship,” *Speculum* 10/4 (1935) 410-431; Thompson, “More Mediaeval Color-making: Tractatus de Coloribus from Munich, Staatsbibliothek, MS. Latin 444,” *Isis* 24/2 (1936) 382-396; Johnson, “The Manuscripts of the Schedula,” as in note 5; Roosen-Runge, “Die Buchmalereirezepte des Theophilus,” as note 9; Theophilus, *On Divers Arts*, ed. Hawthorne and Smith, as note 8; Thompson, “Theophilus Presbyter: Words and Meaning in Technical Translation,” *Speculum* 42/2 (1967) 313-339; Heinz Roosen-Runge, “Die Tinte des Theophilus,” *Festschrift Luitpold Dussler* (Munich, 1972) 87-112; Birgit Bänsch, “Technische Literatur,” *Ornamenta Ecclesiae*, ed. Anton Legner, exh. cat. 3 vols. (Cologne: Schnütgen-Museum, 1985) I, 348-351; idem, *Kölner Goldschmiedekunst*, as note 9; Royce-Roll, *The Importance of Two Twelfth-century Glass Texts*, as note 9; Annette Scholtka, “Theophilus Presbyter: Die maltechnischen Anweisungen und ihre Gegenüberstellung mit naturwissenschaftlichen Untersuchungsbefunden,” *Zeitschrift für Kunsttechnologie und Konservierung* 6/1 (1992) 1-53.

¹⁵ Erica Deuber-Pauli and Dario Gamboni, “Suger, Théophile, le guide pèlerin: éléments de théorie de l’art au XIIIe siècle,” *Études de lettres* 2 (1980) 43-91; in “La ‘double’ formation de l’artiste selon Théophile: pour une lecture différente des prologues du ‘De diversis artibus,’” *Florilegium: scritti di storia dell’arte in onore di Carlo Bertelli* (Milan: Electa 1995) 42-45, Pierre-Alain Mariaux examines the themes of divine unction in the prologues; he does not, however, consider the rest of the treatise; Tosatti argues that Theophilus was writing a Benedictine justification of art in response to Cistercian expansionism, *Trattati medievali*, as note 13, 61-96; and Lynn White, Jr. “Theophilus Redivivus” as note 13.

valuable. The first to appear was that by C. R. Dodwell, an art historian who used his introduction to situate Theophilus broadly within the artistic and cultural realms of the early twelfth century.¹⁶ The second, by the metallurgist Cyril Smith together with John Hawthorne, placed emphasis on the analysis of the techniques that Theophilus describes.¹⁷ In their introduction the two authors place *On Diverse Arts* within the history of technical literature and of artisanal technique more generally, yet their survey ultimately shows that Theophilus' text is in many ways aberrant and sits somewhere between technical handbook and theoretical treatise on religious art. Recent scholarship, led by studies by Bruno Reudenbach, has begun to seek correspondences between the prologues and instructions and to see the spirituality of the prologues as justification for the manual labor of the instructions.¹⁸ There is a growing awareness of the importance of evidence contained in the extant manuscript copies of the treatise. Andreas Speer and Hiltrud Westermann-Angerhausen are spearheading the production of a new digital edition of the text that will usefully trace variations across manuscripts and give new impetus to Theophilan study.¹⁹ My own examination of the text and manuscripts looks in a different direction, seeking evidence of readership and use, investigating the functions Theophilus' text may have served, and drawing out patterns and themes that emerge

¹⁶ Dodwell, as note 5; published in 1961.

¹⁷ Smith and Hawthorne, as note 8; published in 1963.

¹⁸ Bruno Reudenbach, "Werkkünste und Künstlerkonzept in der *Schedula* des Theophilus," in Stiegemann, ed., *Schatzkunst*, as note 2: 243-248; Reudenbach, "Praxisorientierung und Theologie," as note 12; Reudenbach, "'*Ornatus materialis domus Dei.*' Die Theologische Legitimation handwerklicher Künste bei Theophilus," *Studien zur Geschichte der europäischen Skulptur im 12/13 Jahrhundert*, ed. Herbert Beck, Kerstin Hengevoss-Durküp (Frankfurt am Main: Heinrich Verlag, 1994) 1-17; and most recently, Karine Boulanger, and Michel Hérold, eds., *Le vitrail et les traités du Moyen Âge à nos jours, actes du XXIII^e colloque international du Corpus Vitrearum, Tours, 3-7 Juillet, 2006* (Bern: Peter Lang, 2009).

¹⁹ The project is being undertaken under the auspices of the Thomas Institut, Cologne, and is entitled: *Theophilus Projekt: Ein Handbuch mittelalterlicher Kunst? Relecture der Schedula diversarum artium und Erschließung ihrer handschriftlichen Überlieferung in Form einer kritisch-digitalen Edition.* <http://www.thomasinstitut.uni-koeln.de/en/forschung/theophilus/index.html>.

across the text, with the aim of showing the text to be an integral unit. A new reading of *On Diverse Arts*, I argue, has the potential to reconfigure our notions of the medieval artist and to shed light on the larger theoretical frameworks in which art production occurred.

Manuscript Witnesses

Examination of the oldest surviving manuscripts of *On Diverse Arts* encourages us to read Theophilus in new ways. As an entire group, the twenty-five extant manuscripts, ranging in date from the twelfth century to the nineteenth century, can be studied as witnesses of readership, and for the visual evidence that they contain. Out of the twenty-five, nine manuscripts will be of particular importance in this study. Four of the most significant manuscripts, located today in Wolfenbüttel, Vienna, London, and Cambridge, serve to launch the discussions in the chapters of the dissertation that follow. Five other manuscripts, found today in Brussels, London, Leipzig, Paris (where there are two copies), will be called in to buttress arguments made throughout the study.

There is no definitive surviving “first manuscript” of Theophilus. The two oldest copies are the Wolfenbüttel and Vienna manuscripts, and these generate the fundamental themes that guide the dissertation. Both date to the mid-twelfth century, and thus provide precious evidence as to how the book might have first been read. The largest and finest of the copies is the Wolfenbüttel manuscript (Herzog-August Bibliothek cod. Guelph Gudianus lat. 2°69, Figure 1, 1a-b), known in the literature as “G.” The first folio of the manuscript bears a medieval inscription now largely obscured by an eighteenth-century title which reads *Codex mon[asterii] s[an]c[t]i pantaleonis in Colonia*, indicating that it

belonged to the monastery of St. Pantaleon in Cologne (Figure 1). The well-transcribed copy of the text contains all three books and all three prologues, and it is preceded by an elegant eleventh-century copy of Vitruvius' *De architectura*, as is visible in Figure 1a and 1b, a pairing to be discussed in the following chapter.

The Vienna manuscript is perhaps older. Known as V, it too is complete, containing all three books and all three prologues (Vienna Österreichische Nationalbibliothek MS 2527, Figure 2). Much smaller and scrubbier than the Wolfenbüttel manuscript, collecting all three prologues at the beginning, written in one column rather than two, it dates to the early or mid-twelfth century and has been localized to the region around Cologne or present-day Nordrhein-Westfalen. This manuscript is particularly prized because its first folio displays a title identifying its author as a certain Roger: *Theophilus qui et Rogerus, de diversis artibus*, thus connecting the pseudonym to a known authority, the documented artisan Roger of Helmarshausen. These two manuscripts are usually considered to be the closest to the “parent” manuscript, though Dodwell suggests that, based on the variations they contain, they are likely two removes from any first manuscript, which he therefore dates from 1110 to 1140.²⁰

The disparate purposes that these two very different manuscripts imply – one a compendium of learned texts for library use, the other seemingly a working manuscript – forces us to look again, more closely, at Theophilus' text. They show the limitations of scholarly attempts to pin down a precise function or impose a fixed categorization of *On Diverse Arts*. We find that its prologues could be moved and recombined, that it could be written on old pieces of small parchment as well as on large pieces new parchment. It appears to have been copied in accordance with the immediate purpose for which it was

²⁰ Dodwell, as note 5: lvii-lx, xxxiii.

required, and seems to have been used in divergent ways, even, possibly, at the same monastic centers.²¹ The sharp differences between the two manuscripts, and the implications of their disparity, form the basis of the discussions in chapters two and three: chapter two analyzes the Wolfenbüttel manuscript and the text of *On Diverse Arts* in terms of twelfth-century pedagogical and exegetical literature, while chapter three looks at the Vienna manuscript to launch a discussion of twelfth-century artistic personae, identities, and the enduring memory of “Roger” in the region of the Rhine and Meuse river valleys.

The early thirteenth-century Harley manuscript (British Library, MS Harley 3195, Figure 3), is the third oldest of the surviving manuscripts. It too, may have come from the region of present-day Nordrhein-Westfalen, for it was certainly there in the fifteenth century, as it bears a note that it was in Münster in 1444.²² This manuscript, as noted by Dodwell and others, appears to contain a different recension of the text and thus to represent an early departure from Vienna and Wolfenbüttel; the text also includes additional instructions not found elsewhere, making it the lengthiest surviving codex, yet it omits the first prologue.²³ Marginal pointers in the manuscript suggest, however, that the second and third prologues held particular interest for a medieval reader. These peculiar additions and omissions indicate how the theoretical and practical aspects of *On Diverse Arts* might be considered as one, and they trigger an analysis in the fourth

²¹ Degering has suggested that the Vienna manuscript came from the monastery of St. Pantaleon, though the evidence for this is entirely circumstantial. See Hermann Degering, “Theophilus Presbiter,” as note 12.

²² Fol. 149v: *emi ego n. hunc librum munster 1444, in die sancti lamberti in dieta inter dominum Eugenium papam et antipapam felicem*. For a discussion of the variations in text between H, G, and V, see Dodwell, as note 5: lxiii-lxv.

²³ Dodwell, as note 5: lxiv-lxv.

chapter of the linked phenomena of artistic labor in the monastery and the practice of virtuous behavior.

The practical side of *On Diverse Arts* becomes clearer through analysis of the Cambridge manuscript, also dating to the thirteenth century (Cambridge University Library E e 6. 39). The manuscript contains only Book one and portions of Book three, and is bound with two didactic texts: Palladius' fourth-century *Opus agriculturae* and the *Liber de viribus herbarum*, a book on the medicinal properties of herbs ascribed to the ancient poet Macer, but probably written by Odo of Meung in the eleventh century. To these are also added excerpts from the early medieval book of pigment mixtures, the *Mappae clavicula*. Evidence for differences in readership over time as derived from the contrasting kinds of texts bound together in this volume, serve as a point of departure for a discussion of the generic status of Theophilus text chapter five.

Analysis of the thematic issues which arise from the study of these manuscripts forms the core of the dissertation; I also draw for supporting evidence from the five manuscripts of my second group, all described in full in the appendix to this dissertation. The Brussels manuscript, dating from the late twelfth or early thirteenth century, was nearly certainly written in the region of Liège (Brussels, Bibliothèque Royale de Belgique/ Koninklijke Bibliotheek van België MS 10147-58). A small volume, with cramped rounded script faded by wear, the Brussels manuscript contains only portions of the first and third books of *On Diverse Arts*, but is important as the earliest surviving witness to the practice of extracting passages and recombining them, as they are set within a collection of instructions on painting not known elsewhere. Studied and

transcribed by Hubert Silvestre, the collection has since become known as the *Compendium artis picturae*.²⁴

The Egerton manuscript evokes quite a different conception of *On Diverse Arts* (London, British Library Egerton MS 840a, known as E).²⁵ Dating to the early thirteenth century, the manuscript contains only the first book of Theophilus' text, and was once bound with a contemporary text on astrolabes, *De constructione et usu sphaerae et astrolabii*.²⁶ The compiler seems to have regarded *On Diverse Arts* as neither rhetorical, spiritual, nor practical, but as representative of a branch of scientific learning.

The Leipzig manuscript (University Library MS 1157) dates to the fourteenth century and is notable for its merging of religious agenda and scientific heft. A large well-decorated manuscript, probably made at the Cistercian abbey of Alzelle and later owned by an Antonite hermit, it is a particularly cogent example of the adaptability of *On Diverse Arts* as a spiritual and learned resource. This manuscript is a uniform volume that binds Theophilus with ancient and contemporary texts on medicine and minerals: the *Liber de gradibus medicinarum*, a book delineating the mathematical properties of medicinal dosages by Abu Yusuf Ya'qub ibn Ishaq Al-Kindi, or Alchindus, a ninth-century scientist and philosopher of Abbasid Baghdad; the *De mineralibus*, a tract on minerals by the renowned thirteenth-century theologian and scientist from Cologne, Albertus Magnus; a commentary on Aristotle's *Meteorologica*; the *Liber metricus de pulsibus*, a poem on pulse by Aegidius Corboliensis, or Gilles de Corbeil, an early-

²⁴ Hubert Silvestre. *Le Ms Bruxellensis 10147-58 (s. XII-XIII) et son "Compendium artis picturae"* (Brussels: Palais des Académies, 1954) 95-140.

²⁵ When this manuscript was published by Rudolph Raspe in the eighteenth century, it was in Cambridge, Trinity College MS R.15.5. Raspe, *A Critical Essay on Oil-painting; Proving that the Art of Painting in Oil was Known Before the Pretended Discovery of John and Hubert van Eyck; to Which are Added, Theophilus De arte pingendi Eraclius De artibus Romanorum, and a Review of Farinator's Lumen animæ* (London: H. Goldney and T. Cadell, 1781).

²⁶ See Raspe, as note 25.

thirteenth century French physician from the school of Salerno; and a text on diseases by Galen. Setting *On Diverse Arts* between Albertus Magnus and Aristotle, the manuscript defies our expectations about the text, forcing us to reconsider how the knowledge of art-making fits with larger schemes of knowledge and learning. Indeed, it changes our expectations about the status of art making: a scribe has carefully omitted Theophilus' references to luxury objects or colored glass, and what is conspicuously absent are instructions for making objects like censers or gold chalices.

The last two manuscripts of my second group, both now in Paris and dating to the fifteenth century, give evidence of the later impact of Theophilus, and the beginnings of attempts to place it in more rigorous schemes of theoretical or practical disciplines. The text of Paris, BnF MS nouv. acq. lat. 1422, is bound alongside Vitruvius while also containing one of Nicholas of Cusa's mathematical treatises. Since it was probably transcribed in the lower Rhine and is a close copy of the Wolfenbüttel manuscript, Degering has suggest a connection between Nicholas of Cusa himself and the manuscript, as the scholar is known to have been in Cologne in the 1450s, around when the book was probably written.²⁷ An even more considered scholarly initiative stands behind the creation of Paris, BnF MS lat. 6741, to be discussed below (P). Compiled, copied, and annotated by the French humanist and royal notary Jean le Bègue in 1431, the manuscript contains three different painting treatises: the first book of Theophilus, *De coloribus et artibus romanorum* of Heraclius, and *De coloribus faciendi*, a thirteenth-century compendium describing pigments and their use by a certain Peter of St. Omer, of whom

²⁷ For the close relation between Paris 1422 and the Wolfenbüttel manuscript, see Dodwell, as note 5: lviii. Degering even speculates that the manuscript might have been obtained by Nicholas of Cusa, at St. Pantaleon; the possibility is tempting, but there is very little evidence to support it. Degering, as note 12: 253.

little is known.²⁸ Both of these two nearly contemporary Paris manuscripts may be said to be “humanist” texts, as both are learned compendia organized according to fields of knowledge: the former concerns architecture and mathematics, the latter painting.

All these manuscripts give evidence as to how *On Diverse Arts* was read in the later Middle Ages; they indicate that text had varied functions, that it was categorized as belonging to different genres of literature, and that it could be adapted for specific purposes. From the very beginning there seems to be a split: on the one hand the Vienna manuscript, the Brussels manuscript, and the collection of Jean le Bègue suggest an interest in the artistic techniques of *On Diverse Arts*, on the other, the Wolfenbüttel manuscript, the Cambridge, Egerton, and Leipzig manuscripts, and Paris 1422 seem to imply that Theophilus was read as a source of knowledge of the natural world. The conception of a divide between the technical and theoretical facets of the treatise has shaped how the book has been interpreted in our time, some scholars emphasizing one aspect, some another. Yet it is precisely the adaptability of *On Diverse Arts*, its generic fluidity, that help us better to comprehend the role that the treatise played in the Middle Ages.

Collecting, Copying, and Reading *On Diverse Arts*

The story of how Theophilus was read, and by whom, is an amazing one. From the twelfth century to the twenty-first without a break, *On Diverse Arts* caught the attention of notable intellectuals - from Georgius Agricola, to the early modern collector Josias

²⁸ See Merrifield, *Original Treatises*, as note 14: 15. Merrifield does not publish the entirety Theophilus' text but refers the reader to Robert Hendrie's English translation of the work: *Theophilus, qui et Rugerus, presbyteri et monachi*, as note 5. For Jean Le Bègue's interest in humanist knowledge and, especially, in manuscript production, see Donal Byrne, "Jean Le Bègue and the Iconographical Programme for the *Catiline* and *Jurgurtha*," *Journal of the Warburg and Courtauld Institutes* 49 (1986) 41-65.

Simmler, to Gotthold Lessing and Julius von Schlosser. From early humanist readers to modern editors, it became a part of the history of books and learning, increasingly central to an understanding of the history of artistic technique, and significant for the story of art history itself. Our understanding of *On Diverse Arts*, is embedded in this history; we must therefore consider how Theophilus has been understood, and the motivations and assumptions that have affected how it has been interpreted, as we build on our predecessors and look at the text anew.

There is evidence that *On Diverse Arts* was valued as a reference source book and culled for information as early as the fourteenth century. The anonymous author of a text called the *Lumen animae*, is the earliest to refer to a book by a certain Theophilus, which he refers to as the *Brevilorum diversarum artium* and says he had obtained from a monastery in Germany.²⁹ The *Lumen animae* is an encyclopedic source that describes the natural world in terms of Christian concepts; following the tradition of Isidore of Seville's *Etymologies*, it describes in detail, for example, the associations of the animals with virtues, or the magical properties of stones and gems.³⁰ The citation, however, is vague, so while some early editions of *On Diverse Arts* have included those passages in the *Lumen animae* seen as deriving from Theophilus, other, more recent editions like Dodwell's have excluded them.³¹ As Dodwell explains it, the excerpts, address pseudo-

²⁹ *Lumen animae, liber moralitatum elegantissimus magnarum rerum naturalium lumen anime dictus, cum septem apparitionibus, necnon sanctorum doctorum orthodoxe fidei professorum, poetarum etiam ac oratorum auctoritatibus per modum pharatre secundum ordinem alphabeti collectis* (Augsburg: Anton Sorg, 1477); recently published and translated in Nigel Harris, ed., *The Light of the Soul, the Lumen anime C and Ulrich Putsch's Das Liecht der sel* (New York: Lang, 2007); and Raspe, as note 25: 145.

³⁰ See, for example, the discussion of the text in Raspe, as note 25: 124-149; and for the virtues and animals, 131-133.

³¹ As Dodwell has argued, it seems highly unlikely that this reference is to the *De diversis artibus* of Theophilus, though a number of early editions of the text, such as those of Raspe, *A Critical Essay on Oil-Painting*, as note 25; Theophilus Presbyter, *Libri 3 seu Diversarum artium schedula: Théophile: Essai sur divers arts*, ed. Charles de L'Escalopier, introd. J. Marie Guichard (Paris 1843) reprint, Nogent-le-Roi:

natural phenomena such as the sterility of trees, swimming snakes, and the odors exuded by blind people, and thus are too “far removed from the good sense and practical empiricism” of *On Diverse Arts* to be from the same text.³² It is possible, however, that the reference and the excerpts may simply point to an expanded variation of the text that is now unknown. Regardless, the citation is evidence that Theophilus was esteemed for his knowledge of the properties of the natural world, and that his reputation held force—even when information was gathered from probably non-Theophilan sources.

In the fifteenth century, Theophilus caught the eye of Jean le Bègue, a Parisian humanist. As the colophon attests, Le Bègue copied his own version of *On Diverse Arts*, which he incorporated into a collection of painting treatises.³³ Part of a circle of French humanists who shared common interest in copying the writing styles of the past, Le Bègue is known to have had an interest in manuscript illumination and medieval scripts, and he seems to have used the compare and analyze painting techniques.³⁴ The book is written in a neat, upright script, with red and blue initials, which, although simple, nonetheless betray a great care in execution. The manuscript even contains a glossary of words and synonyms for equivalent colors, making the book both an example of fine

Librairie des arts et métiers, 1977); and Albert Ilg, in Theophilus, *Schedula Diversarum Artium*, Albert Ilg, ed. Quellenschriften für Kunstgeschichte und Kunsttechnik des Mittelalters, 7 (Vienna: W. Braumüller, 1874), have linked the two. See Dodwell, as note 5: xlv.

³² See Dodwell, *DDA*, as note 5: xlv-xlvi; Smith and Hawthorne also exclude them, see Smith and Hawthorne, as note 8.

³³ See Byrne, “Jean Le Bègue,” as note 28, and for an example of Le Bègue’s colophon and glossing practice, see esp. Byrne, 46. The table of synonyms is entitled: *Experimenta 118. de coloribus: praemittur tabula ordine alphabetico digesta de vocabulis synonymis et aequivocis colorum, eorumque accedentium*, fols. 2r-20v; the collection of recipes, written in both French and Latin, is entitled: *Differentes receptes fur les couleurs, recueilles par Jean le Bègue, Gressier de la Monnoye de Paris*, fols. 92r-101v.

³⁴ For the interest on the part of the French humanists in scripts, and that of le Bègue’s teacher Jean de Montreuil in particular, see Gilbert Ouy, “Jean de Montreuil et l’introduction de l’écriture humanistique en France au début du XV^e siècle,” *Miniatures, Scripts, Collections, Essays Presented to G.I. Lieftinck*, *Litterae textuales* 4 (Amsterdam: A. L. Van Gendt, 1976) 53-61.

book production and a source of knowledge about the practice of painting. Le Bègue's interest in Theophilus was technical, historical, and scholarly.

Le Bègue's manuscript itself became part of one of the great book collections of the period. In the sixteenth century, it was in the collection of the French bibliophile Louis Martel of Rouen, from whom it was acquired in the early seventeenth century by the intellectual and collector Jean Bigot, senior member of the fiscal court (*cour des aides*) of Normandy.³⁵ Bigot's library held more than 500 manuscripts, and he was reportedly very generous in making his collection available to a larger community; under his son Emeric, the Bigot library became a center for regular gatherings of intellectuals.³⁶ While there is no evidence as to how the text was categorized by Bigot, it did pass into the royal collections with the rest of the library in 1692 after the death of Jean's son, Robert, where a 1744 catalogue listed it under "Recent and Scholastic Philosophy."³⁷ *On Diverse Arts* seems to have been considered a remnant of a past when art-making was focused on technique, and the catalogue indicates this eighteenth century interest in a historiographical perspective on medieval art, an interest that may also characterize Lessing's study of *On Diverse Arts* of 1774. Theophilus' artist would soon come to be regarded as emblematic of the "medieval" state of mind.

³⁵ J. Bidez et al., eds. *Catalogue des manuscrits alchimiques latins, manuscrits des Bibliothèques de Paris antérieurs au XVIIIe siècle* (Brussels: Palais des Academies, 1939) Vol. 1: *Manuscrits des Bibliothèques Publiques de Paris*, 39-48. Other manuscripts passed from Louis Martel to Jean Bigot; see, for example, Paris, BnF lat. 2636, a twelfth-century manuscript containing Gregory of Nyssa's *De creatione hominis*, Remi of Auxerre's *Expositio missae*, and Theoduinus of Liège's *Epistola ad Henricum regem contra Bruonem et Berengarium*, described in Ph. Lauer, et al., eds., *Bibliothèque Nationale, catalogue général des manuscrits latins 2* (Paris, 1940): 558-559. For Jean Bigot, his collection and his descendants, see "Bigot," *La grande Encyclopédie: inventaire raisonné des sciences, des lettres, et des arts, par une société de savants et de gens des lettres*, ed. MM. Berthelot, et al. (Paris, 1855-1902) vi, 811.

³⁶ *La grande Encyclopédie*, as note 35: vi, 811.

³⁷ The book comes under *Philosophia*, and the subheading *Philosophi recentiores et scholastici*; see *Catalogus codicum manuscriptorum bibliothecae Regiae*, part III (Paris, 1744) iv, 273-274. See also Daniel V. Thompson, "The Schemata of Theophilus Presbyter," *Speculum* 7 / 2 (1932) 199-220, 219.

The history of the Wolfenbüttel manuscript offers a similar case of changing interpretations and illustrious owners. Having been at St. Pantaleon's until perhaps as late as the fourteenth or fifteenth century, by 1545 the manuscript was apparently in the hands of Georgius Agricola, the author of the classic work on the science and nature of metals, *De re metallica*.³⁸ Agricola was closely connected to the intellectual circles around Cologne, making it highly possible that he acquired the manuscript there, and tempting one to wonder whether local colleagues like Erasmus might have been familiar with *On Diverse Arts* as well.³⁹ Agricola's interest in the manuscript, however, primarily focused on the copy of Vitruvius it contained: Agricola cites the Roman author extensively in the

³⁸ *Theophili monachi libri 3. Primus de temperamentis colorum, secundus de ratione vitri, tertius de fusoria et metallica. Extant apud Georgium Agricolam in pergamenis, et in Cella veteri monasterio, quae bibliothecae Lipsiam translata est. Idem Theophilus in tractatum diversarum artium adducitur, in libro qui inscribitur Lumen animae, in Epitome, bibliothecae Conradi Gesneri, conscripti primum a Conrado Lychosthene Rubeaquensi, nunc denuo reocngita et plus quam bis mille authorum accessione (qui omnes asterico signati sunt) locupletata: per Josiam Simmlerum Tigurinum, Tigui apud Christophorum, Froschoverum, Mense Martio, 1555, rpt. *Millaria faksimiledruck zur Documentation der Geistentwicklung* 5, ed. Hellmut Rosenfeld and Otto Zeller (Osnabrück: Otto Zeller Verlagsbuchhandlung, 1966): 173v. The only evidence that this manuscript was owned by Agricola seems to come from Simmler. It is a claim which is repeated by Raspe, in *A Critical Essay on Oil-painting*, as note 25: 38; then picked up by Ilg, in *Schedula Diversarum Artium*, as note 31: ii; Lessing also makes the claim, but without any further evidence, in *Vom Alter der Oelmalerey*, as note 1, 331, note p. Dodwell argues the manuscript was in the hands of Agricola in 1530, and cites Lehmann, who gives little further information about the date. Dodwell, *DDA*, as note 5: lviii; and Paul Lehmann, "Aus dem Leben... eines Helfers der Philologen," *Archiv für Kulturgeschichte* 28 (1938) 163-190. For Agricola's interest in the arts, see Michael Baxandall, "Rudolph Agricola and the Visual Arts," *Intuition and Kunstwissenschaft*, Festschrift for Hanns Swarzenski Festschrift (Berlin 1973) 409-19.*

³⁹ The philosopher Erasmus, for example, who wrote the introductory letter for the *Bermannus*, was based in Leuven around 1517; the philologist Petrus Mosellanus, who was Agricola's mentor at University in Leipzig, was born in the Mosel region of Germany and studied at the University at Cologne around 1512, and Pierre Plateanus, a close friend of Agricola's who studied at Liège and at Leuven and later lived in the Joachimsthal, the mining town upon whose operations much of the *Bermannus* is based. For the life, studies and scholarly circle of Agricola, particularly with reference to the intellectual set of Leuven and Liège, which included figures such as the philosopher Erasmus and the scholar Pierre Plateanus, see the introduction to *Bermannus*, in the edition of Halleux and Yans: Georgius Agricola, *Bermannus, (le mineur) un dialogue sur les mines*, ed. Robert Halleux and Albert Yans (Paris: belles lettres, 1990) 95, xi-xvii. See also Long, *Openness, Secrecy, Authorship*, as note 9: 334-336; Owen Hannaway, "Georgius Agricola as Humanist," *Journal of the History of Ideas* 53 / 4 (1992) 553-560; on Petreanus, 558-560; and Mosellanus, 555-557.

Bermannus, his dialogue on metallurgy published in 1528, but makes no mention of Theophilus.⁴⁰

Agricola did consider Theophilus a resource for the history of metallurgy, however; in the *De re metallica* of 1556, Agricola returned to the project begun in *Bermannus* of drawing practical knowledge about metals into an intellectual, scientific system and clarifying the terms used in the science of metallurgy.⁴¹ Essentially compiling a history of alchemy and metallurgy, which spans the centuries from antiquity to the fifteenth century,⁴² Agricola awards “due recognition to persons whose writings he uses, even very slightly,” and claims his project is a new effort to clarify and correct the “obscure language” used by alchemists – a list including Theophilus.⁴³ That Agricola may have been reading Theophilus at all is significant, yet his reference to Theophilus is ambiguous. It perhaps encapsulates an idea of medieval writers that has persisted: Agricola seems to value *On Diverse Arts* for its historical interest, but also sees it as a source that must be clarified, updated and systematized for modern use.

Agricola’s contemporary and occasional critic Cornelius Agrippa made use of Theophilus too, casting him as a figure important in the history of glass-making. Agrippa’s *De incertitudine et vanitate scientiarum*, or *On the Vanity of Arts and Sciences*, printed in 1527 in Cologne, is a skeptical argument against the value of scientific

⁴⁰ See for example, the discussion of the carbuncle, in which the antiquarian Naevius advises caution regarding the naming of things; “The Greeks,” he writes, “have called cinnabar many different things on account of the similarity of color. For instance, in the words of Vitruvius it is the veins of red lead (*minii venam*), a most noble gem, as Pliny called Carbuncle (*carbunculum*), the common call ruby (*rubinus*).” *Multas certe res ob coloris similitudinem ἀνθρακας Graeci nominarunt. Nam minii venam, ut verba Vitruvii declarant, gemmam nobilissimam, quam Plinius inde Carbunculum, vulgus Rubinum vocat.* In Halleux and Yans, eds., *Bermannus*, as note 39: 95.

⁴¹ For a close study of Agricola’s concern for the lexicon of mining, see Hannaway, “Georgius Agricola as Humanist,” as note 39.

⁴² Georgius Agricola, *De re metallica*, trans. H. C. Hoover and L. H. Hoover (New York: Dover, 1950) Preface, xxvi-xxvii. For a discussion of the figures included in the list see esp. xvii-xx, note 12.

⁴³ Agricola, *De re metallica*, Preface; Hoover, as note 42: xxvii-xxviii.

learning, which includes a chapter on alchemy and chemistry. It is here that Theophilus comes into play: Agrippa denounced the practice of chemistry, and what he sees as its derivative, metalwork, calling chemists “of all men the most perverse,” as they “endeavor to raise Golden mountains by Women’s labour and Children’s play.”⁴⁴ But all is not lost, for “from metalwork,” Agrippa continues, “sprung the Art of making all sorts of Glasses; a most noble invention, of which Theophilus hath writ a most excellent treatise.”⁴⁵ Agrippa, denigrating the vain art of chemistry, praises Theophilus’ book on glass, curiously ignoring the books on metalwork or painting.

It is not known how Agrippa knew of *On Diverse Arts*, but its appeal may have been in its moral and religious slant. Charles Nauert has argued that Agrippa’s critique of scientific knowledge in *De vanitate*, and his subsequent embrace of the occult in *De occulta philosophia*, is part of a process in which doubt about scientific knowledge gives way to the pursuit of a knowledge mediated by the divine.⁴⁶ I suggest it is therefore possible that the medieval monk’s presentation of knowledge as derived from God was in accord with this desire.

More clear is that for Agrippa Theophilus represents but one episode in a larger historical narrative. Agrippa offers a short history of glass technology. He recounts Pliny’s narrative of the invention of glass and the Roman emperor Tiberius’

⁴⁴ Henry Cornelius Agrippa, *The Vanity of Arts and Sciences*; translation of *De incertitudine et vanitate scientiarum*, Antwerp, 1530 (London: Printed by R.E. for R.B. and are to be sold by C. Blount, 1684) 315. For Agrippa’s skepticism in the text, see Charles G. Nauert, Jr. “Magic and Skepticism in Agrippa’s Thought,” *Journal of the History of Ideas* 18 / 2 (1957) 161-182.

⁴⁵ Agrippa, *The Vanity of Arts and Sciences*, as note 44: 316. See also Dodwell, *DDA*, as note 5: lii. For a short discussion of the larger intellectual context of Agrippa and Agricola see William McPeak’s review of Halleux and Yans’ s edition of Agricola’s *Bermannus (le mineur): Un dialogue sur les mines* (Paris: Les belles lettres, 1990) in *Isis* 83 / 1 (1992) 124-125.

⁴⁶ Nauert, “Magic and Skepticism,” as note 44. For Agrippa’s interest in magic as another form of religiosity, see Paola Zambelli, “Magic and Radical Reformation in Agrippa of Nettesheim,” *Journal of the Warburg and Courtauld Institutes* 39 (1976) 69-103.

condemnation of the craft as a threat to the value of metals; Theophilus' treatise on glass, with its orderly, principled system, presents an antidote to the greed and vanity of Tiberius: "But Pliny relates that the temperament of Glass was found out in the time of Tiberius; but the Work-house was by Tiberius pull'd down, and the Artificer, if we may believe Isidorus, was put to death, lest the Glass should detract from Gold, and Silver and Brass lose their value."⁴⁷ Both Agricola and Agrippa introduced Theophilus as representative of a stage in the larger trajectory of learning. As time passed, as the Middle Ages grew more and more remote, the technical information preserved in the text became its most valued feature, as increasingly its historical rarity was increasingly recognized and celebrated.

Theophilus in the Libraries: Classifying and Categorizing *On Diverse Arts*

Agrippa's reference to *On Diverse Arts* eventually brought Theophilus much wider fame, as the text became a source known to many of the prominent bibliographers, librarians, and scholars of the early modern period. It is from this history that we begin to see how Theophilus became known as a representative of medieval knowledge and how *On Diverse Arts* became understood as primarily a source of technical information. Now, the two ideas are often intertwined, so that Theophilus is seen as primary evidence for the idea that art in the Middle Ages was essentially considered a technical endeavor, a task for the humble craftsman. The story, then, is one which follows the fame of Theophilus as references build one upon the next; yet it is also story which follows how interpretations of the text build upon each other and become far removed from the twelfth-century context, increasingly regarding Theophilus as a technical resource.

⁴⁷ Agrippa, *The Vanity of Arts and Sciences*, as note 44: 316.

On Diverse Arts was in fact included in one of the earliest comprehensive catalogues of learned literature, the *Bibliotheca universalis*, compiled by the Swiss naturalist and humanist Conrad Gesner and published in 1545. Gesner's aim with this book was to compile a bibliography of known texts written in the three principal languages of Hebrew, Latin, and Greek. His hope was to catalogue the whole field of human knowledge, to preserve it against the loss of books, and hence knowledge, that had occurred through fire and war at ancient libraries such as the library of Alexandria. His goal too was to help determine what books did exist and to organize knowledge about them, especially as the number of books in existence was rising dramatically with the onset of printing.⁴⁸

For Gesner Theophilus was one source among many and his knowledge of *On Diverse Arts* came directly from Agrippa, whom he quotes: "A certain Theophilus who wrote the most noble book on glass making. Hen. Cornelius Agrippa."⁴⁹ Yet even if only known second hand, Gesner seems to have ranked Theophilus amongst a group of illustrious authors. Gesner's *Pandectarum, sive partitionum universalium*, is an expansion on the *Bibliotheca universalis*, published in 1548.⁵⁰ Here Gesner categorized his bibliography according to subject, and included Theophilus' book on glass in a section titled "On glass and mirrors" (*de vitro et speculis*) where it falls in book XIII,

⁴⁸ Conrad Gesner, Preface to *Bibliotheca universalis, sive catalogus omnium scriptorum... Conrad Gesner* (Zurich: Froschouer, 1545) reprinted in *Milliaria, Faksimiledrucke zur Dokumentation der Geistesentwicklung* 5, ed. Hellmut Rosenfeld and Otto Zeller (Osnabrück: Otto Zeller Verlagsbuchhandlung, 1966) unpaginated fols. 2r-3v.

⁴⁹ *Theophilus quidam pulcherrimum de vitrificatoria librum conscripsit. Hen. Cornelius Agrippa.* Gesner, *Bibliotheca universalis*, as note 48: 614.

⁵⁰ Conrad Gesner, *Pandectarum, sive Partitionum universalium... libri XXI* (Zurich 1548) reprinted in Margaret Daly Davis, ed., *Excerpted Bibliographies for the History of Art and the Study of Antiquity* (Heidelberg: Universitätsbibliothek der Universität Heidelberg, 2007).

under “On mechanical and other unlettered arts.”⁵¹ The section provides bibliographic sources for what is essentially Agrippa’s narrative of the history of glass.⁵² It begins with the elder Pliny, citing his account of the origin of the material, then lists the Florentine humanist Pietro Crinito’s account of Tiberius, Crinito’s humanist contemporary in Urbino Polydore Vergil on minerals, and finally, Theophilus on glass making.⁵³ Theophilus occupies a curious place at the end of the list; unlike his humanist counterparts, with their narratives of ancient inventions and histories, Theophilus is his own technical reference; he is a direct representation of medieval knowledge.

⁵¹ *De vitro & speculis* is in Liber XIII, *de mechanicis et aliis illiteratis artibus*; Conrad Gesner, *Pandectarum*, as note 50: 28. The full list is as follows: *De vitro & speculis. / De origine vitri, & ratione faciendi: & de obsidiano vitro & de veneribus multiformibus vitri*, Plinius 36.26. / *Quod imperante Tiberio vitrum flexile ac ductile redditum sit, & qua poena tantae inventionis auctor damnatus fuerit*, Crinitus 23.4 / *De origine vitri & electri, & quis primus invenerit minium, & myrrhina in urbem asportaverit, & de crystallo*, Polydorus 2.22. / *De vitrificatoria*, Theophilus.

⁵² Gesner appears to have used Agrippa a considerable amount, though he found his religious point of view problematic; see Paola Zambelli, “Magic and Radical Reformation,” as note 46: 73-74.

⁵³ The first is the elder Pliny’s treatment of the origin and working of glass in the *Historia naturalis*: on the origin of glass, and the method of working it: *de origine vitri, & ratione faciendi: & de obsidiano vitro & de veneribus multiformibus vitri*, Plinius 36.26. Gesner, *Pandectarum*, as note 50: 28; and Pliny the Elder, *The historie of the world, commonly called, the naturall histoie of C. Plinius secundus*, trans. Philemon Holland (London: Adam Islip, 1601) Book 36. The second entry is the Florentine humanist Pietro Crinito’s version of the Tiberius story, from *De honesta disciplina*, of 1504: *Quod imperante Tiberio vitrum flexile ac ductile redditum sit, & qua poena tantae inventionis auctor damnatus fuerit*, Crinitus 23.4 Gesner, *Pandectarum*, as note 50: 28; For a brief note on Pietro Crinito within the humanist circle, see Delio Cantimori and Frances A. Yates, “Rhetoric and Politics in Italian Humanism,” *Journal of the Warburg Institute* 1 / 2 (1937) 83-102: 87-88, n. 4. The third is a chapter on the invention and discovery of minerals by Polydore Vergil, Crinito’s humanist contemporary in Urbino: *De origine vitri & electri, & quis primus invenerit minium, & myrrhina in urbem asportaverit, & de crystallo*, all from *De inventoribus rerum* (On the inventors of things), by Polydore Vergil, an Italian humanist writing for the court of Urbino at the close of the fifteenth century. The chapters draw heavily on Pliny to describe, respectively, the discovery of glass from the sands of Phoenicia (*de origine vitri & electri*); the discovery of cinnabar, or vermilion, in Ephesus and its use by the Romans as a sign of sanctity, the history of myrrh’s transport by traders and robbers from the east, and the likeness of crystal to frozen water: *De origine vitri & electri, & quis primus invenerit minium, & myrrhina in urbem asportaverit, & de crystallo*, Polydorus 2.22. Gesner, *Pandectarum*, as note 50: 28; and Polidore Virgil, *The works of the famous antiquary, Polidore Virgil containing the original of all arts, sciences, mysteries, orders, rites, and ceremonies, both ecclesiastical and civil: a work useful for all divines, historians, lawyers, and all artificers*, trans. Thomas Langley (London: Printed for Simon Miller at the Star in St. Paul’s Church-yard, 1663) Book II, ch. xiv, 113-114. See also Brian P. Copenhaver, “The Historiography of Discovery in the Renaissance: The Sources and Composition of Polydore Vergil’s *De inventoribus rerum*, I-III,” *Journal of the Warburg and Courtauld Institutes* 41 (1978) 192-214. Lastly, Theophilus, *de vitrificatoria*: Gesner, *Pandectarum*, as note 50: 28.

Gesner's text was no mere list: copies of his bibliography circulated and were often used by libraries as a template. One copy of Gesner's bibliography survives today in Munich; a slightly later edition of the *Bibliothecae universalis*, it remounts each page on a larger sheet of paper to make room for commentary in the margins, which were filled with annotations and descriptions of the volumes owned by the Bavarian library in the sixteenth century.⁵⁴

The bibliography provided guidelines for library classifications and undoubtedly shaped patterns of book collecting. *On Diverse Arts* certainly gained prestige by its inclusion in this catalogue, as it helped to establish Theophilus' place in the canon of Latin literature, making his treatise a part of the European literary heritage, but it also solidified Theophilus' status as a place-holder in history: the text was valued as a catalogue of techniques preserving knowledge of the past.⁵⁵

Gesner's text was expanded again in 1555, this time by Josias Simmler, who seems to have been much more familiar with *On Diverse Arts* than his predecessor.⁵⁶ In a new appendix to the *Epitome bibliothecae Conradi Gesner*, Simmler, a Protestant theologian and professor of biblical exegesis at Zurich, describes rather fully the text and its author, even mentioning its manuscripts and owners:

⁵⁴ Munich, Bayerisches Staatsbibliothek L. impr. C. n. Mss 46. The edition is that which was edited by Josias Simmler, and published in 1555, *Epitome, bibliothecae Conradi Gesneri*, as note 38.

⁵⁵ Texts with which Theophilus is now often grouped, such as Heraclius' *De coloribus* and the *Mappae clavicula*, are not to be found on the list. Nor does Gesner's list include other sources related to Theophilus, such as Varro, a sign that his knowledge of Theophilus did not come from the angle of ancient and medieval didactic literature. He does however, include Palladius: Palladii, Rutili, Tauri Aemiliani de re rustica lib. 13. im presi Lugduni apud Grypium 1535. ex alibi, cum Columella et reliquis rei rusticae scriptoribus latinis, fol. 141r. Simmler, ed., *Epitome, bibliothecae Conradi Gesneri*, as note 38.

⁵⁶ Josias Simmler, ed., *Appendix Bibliothecae Conradi Gesneri*, Tiguri apud Christophorum, Froschoverum, Mense Martio, 1555, rpt. Millaria, Faksimiledrucke zur Dokumentation der Geistesentwicklung 5, ed. Hellmut Rosenfeld and Otto Zeller (Osnabrück: Otto Zeller Verlagsbuchhandlung, 1966) and *Epitome, Bibliothecae Conradi Gesneri*, as note 38.

Three books of Theophilus the monk. The first is on the mixing of colors, the second on the methods of glass, the third on casting and metals. There survives one parchment manuscript owned by Georgius Agricola, one in the ancient monastery of Cella [Altzelle], which was brought to the library at Leipzig. The same Theophilus is referred to in the *Tractatus diversarum artium*, in the book called the *Lumen anime*.⁵⁷

As bibliographies based on Gesner continued to be expanded and copied the fame of *On Diverse Arts* grew, with the adverse result that the text became categorized more narrowly. Joachim Feller, professor and librarian at the University of Leipzig expanded on Simmler in the preface to his 1686 university library catalogue :

Amongst the doctors, not without joy, I have found the book of Theophilus the monk on the arts of colors and of the making of glass, which today no one protects from perishing completely; this is that same book which Johannus Jacobus Frisius praised in the *Bibliotheca* of Gesner and Simmler: a certain Theophilus has written the most beautiful book on the arts of Glass, (of this volume there are three books) there survive, a parchment in the hands of Georgius Agricola, and one from the old monastery of Cella, which was brought to the library at Leipzig.⁵⁸

For Feller certainly, *On Diverse Arts* stood decisively apart from the works of the medical men collected in the manuscript, belonging to a different genre entirely; yet

⁵⁷ *Theophili monachi libri 3. Primus de temperamentis colorum, secundus de ratione vitri, tertius de fusoria et metallica. Extant apud Georgium Agricolam in pergamenis, et in Cella veteri monasterio, quae bibliothecae Lipsiam translata est. Idem Theophilus in tractatum diversarum artium adducitur, in libro qui inscribitur Lumen animae, in Epitome, bibliothecae Conradi Gesneri, as note 38: 173v.*

⁵⁸ *Inter medicos non sine gaudio inveniebam Theophyli monachi librum de arte colorandi ac coquendi vitra_ quam plane intercidisse hodie non-nulli asserunt; quin illum ipsum librum de quo joh. Jacobus Frisius in Bibliotheca Gesneri & Simleri amplificata p. 778: Theophilus quidam pulcherrimum de arte vitrificatoria librum scripsit. Extant (libri eius tres) apud Georgium. Agricolam in Pergamenis, & in Cella veteri Monasterio, quae Bibliotheca Lipsiam traslata est. Joachim Feller, Catalogus codicum, MSSCtorum bibliothecae Paulinae in academia Lipsiensi (Leipzig: Gleditsch, 1686) preface, unpaginated. For the listing itself see 255, entry no. 21.*

Feller seems to have valued its unique nature, as there is even a small pointing hand inserted in the margin of Feller's catalogue, singling out Theophilus' treatise.⁵⁹

From these catalogues and bibliographies, awareness of *On Diverse Arts* continued to build, yet with one author drawing upon another, interpretations became increasingly narrow. As he sought to organize and present the vast fields of learning in the *Polyhistor sive auctorum notitia et rerum commentarii* of 1688, Daniel Georg Morhof drew upon Feller. Citing his description of the Leipzig manuscript, Morhof singled out *On Diverse Arts*; it was for him a prime example of a valuable ancient text saved from oblivion.⁶⁰ *On Diverse Arts* even played a role in an early art historical debate: in a 1690 review of Giovanni Ciampini's *Veteri Monumenta*, a book describing the monuments of early Christianity as they developed from Roman precedents,⁶¹ the critic, perhaps Feller himself,⁶² cites *On Diverse Arts* to dispute Ciampini's claim that the earliest text on the fabrication of glass was written by Antonio Neri in sixteenth-century Florence.⁶³

⁵⁹ Under the category *MEDICA* (series I, in folio): no. 21: *Jacobi Alchindi liber de gradibus medicinarum. / Albertus M. de mineralibus. / (Pointing hand) Theophili Monachi libri de coloribus & de arte colorandi vitra / Quaestiones super libros Meteororum Aristotelis. / Aegidii, Monachi Corbeiensis, liber metricus de puslibus cum glossis. / Galeni libri de Crisi.* Feller, *Catalogus codicum*, as note 58: 255.

⁶⁰ *Edidit superiore anno celeberrimae Academiae Lipsiensis Catalogum Codicum Mstorum Cl. Fellerus, optime hac opera de Academia non solum, sed & orbe literato meritis, qui in praefatione Catalogi sinularia quaedam & notabilia summatim exponit. Reperiuntur illic libri partim plane incogniti, partim perquam rari, Patres & Historici Graeci. Habetur in illis Theophili Monachi liber de arte colorandi ac coquendi vitra, quem intercidisse plane nonnulli existimant, merito conferendus cum illis, qui hodie de eodem argumento scripti sunt. Latitant ini illis pulirimi veterum Germanorum libri Rhythmici, non immerito eodem, si non majori, a nobis pretio habendi, quo haberi solent aliarum gentium venerandae antiquitatis rudera.* Described by Daniel George Morhof in his *Polyhistor sive de notitia auctorum et rerum commentarii, quibus praeterea varia ad omnes disciplinas consilia et subsidia proponuntur* (Lübeck: Böckmannus, 1688-1692) I, 59-60.

⁶¹ Anonymous review of *Veteri monimenta, in quibus praecipue musiva opera, sacrarum profanarumque aedium structura, ac nonnulli antiqui ritus dissertationibus iconibusque illustrantur*, by Joanne Ciampino Romano (Rome: Komareck, 1690) *Acta eruditorum*, August, 1690, 419-420.

⁶² Dodwell, *DDA*, as note 5: liii.

⁶³ He describes the treatise as follows: the first book is listed as "On color and their mixtures" (*de coloribus et eorum mixtura*); the second, "On the construction of the furnace for the making of windows and the production of tools necessary for these things" (*de constructione furni ad operandum vitrum et instrumentis hanc in rem necessariis*) and the third is "On moulds, vases for melting gold, and on applying and polishing

Seventeenth century copies of *On Diverse Arts* speak to the continued and growing interest in Theophilus, and it is from this point that we see the attribution to Roger in the Vienna manuscript, the oldest copy of Theophilus, beginning to have its effect. The knowledge of the attribution to Roger seems to have spread while the manuscript was owned by Bernhard Rottendorff, a physician and collector in Münster, on whose name is inscribed on the first folio of the Vienna manuscript. Rottendorff probably acquired the manuscript in the region of Westphalia, where he is known to have sought codices in old monasteries.⁶⁴ Around the time of Rottendorff, two copies of *On Diverse Arts* were made. One of these is now also in Vienna, where it is given the number 11236. The other is now Venice Biblioteca Marciana Lat. vi. 199 (3597). Both manuscripts are clean and neat copies with broad margins. Each contains carefully copied script written in a single hand. Yet while both claim to be copies of the “antique manuscript in the Vienna Library,” and both quote the attribution of Theophilus as Roger, both in fact contain the text of the Wolfenbüttel manuscript.⁶⁵ The provenance of these manuscripts is unknown,

niello” (*de limis, de vasculis ad liquefaciendum aurum, et de nigello imponendo et poliendo*). *Acta eruditorum*, as note 80: 419-420. According to Dodwell and others, The Leipzig manuscript is also mentioned in the *Nouvelles de la République des Lettres*, Amsterdam, September 1686, 1027.

⁶⁴ Rottendorff probably acquired the manuscript sometime after 1646, as it is from this time that P. Claude Aubry became caretaker for the collection, and the Vienna manuscript bears his mark. Rottendorff died in 1671. For Rottendorff’s collecting activities, see Paul Lehmann, “Aus dem Leben” as note 38. More generally, see also Hermann Hugenothe, *Zum dichterischen Werk des Münsterchen Arztes und Humanisten Bernhard Rottendorff (1594-1671)*, ed. Franz-Josef Jakobi, with contributions by Helmut Lahkamp and Bertram Haller (Münster: Aschendorffsche Verlag, 1991); and for an overview of Rottendorff’s life, see, in this same volume the essay by Helmut Lahkamp, “Ein Arzt und Dichter im Barockzeitalter. Aus dem Leben des Dr. med. Bernhard Rottendorff,” 3-55. Degering and Lehman have suggested that Rottendorff owned both the Vienna and Wolfenbüttel copies of *On Diverse Arts*, but evidence is circumstantial. Degering, “Theophilus Presbiter,” as note 12: 259-262. For the figure of Aubry, see Lehmann, “Aus dem Leben,” as note 38: 125.

⁶⁵ Vienna, ÖNB MS 11236 contains a title page on fol. 1r reading *Theophilus monachi... qui et Rogerus libri tres*, and an inscription on folio 1r claiming that the manuscript was copied after an “ancient manuscript in the imperial library of Vienna,” which seems to link it to the Rottendorff manuscript, though since the manuscript is rather a copy of the Wolfenbüttel text this seems to be an incorrect, and later, assertion. Folio 1v also contains an inscription in the same hand making reference to the citation of Theophilus in the *Lumen animae*: Vienna ÖNB 11236, fol. 1r: *Ex antiquo codice membranaceo (in 12 mo.*

and since they clearly draw from both V and G the idea that Rottendorff may have owned the Wolfenbüttel as well as the Vienna manuscript is very tempting. Regardless, the seventeenth-century copies betray an interest in preserving the text, and the manuscripts seem to have been of interest as collectors' items, as copies of a venerable older manuscript. Although inaccurate additions, then, the title pages are a sign of the appeal of Roger's name and show that certain manuscripts were famous enough to make a reference to them meaningful.

Rottendorff's collection comprised a large number of manuscripts, and his library seems to have been a working one which included a variety of ancient and medieval learned texts. *On Diverse Arts* seems to have occupied a place amongst authors that ranged from like Cicero, Juvenal, and Seneca, to Avicenna, Odo of Cluny and Hugh of St. Victor.⁶⁶ Rottendorff's interest in books went beyond collecting; he was an author who drew heavily upon classical Latin sources, even directly employing Vitruvius in definitions of architectural form.⁶⁷ He clearly had a large knowledge of books: with Bernhard von Mallinckrodt, friend, fellow bibliophile and dean of the Cathedral of

Catog meono notato) Augustiana Bibliotheca Casarea Vindonobonensis; and in the same hand, added below: *Liber ist olim pertmisirit ad. Bern. Rottendorf D. Medicum Coserverin et Electoral, A cls hc xlvii;* fol 1v reads: *De hoc auctore consulendis est liber lumen animae nuncupatis, ab anangma conscriptus tempore Joannis PP xxii typis ver eilgatus A. 1477. Opera fratrsi Matthiew Farmatoris de Vienne ordini Carmelitarium.* Venice, Lat. vi. 199 (3597) contains an unfoliated title page: *Theophili monachi qui et Rugerus. Libri tres, I de temperamentis colorum, II de arte vitriana, III de arte fusili: descripti ex antiquo codice membrenaco msto augustissima bibliotheca casared. Vindobonensis.*

⁶⁶ Some of the authors and texts given by Lehmann include: Priscian, *Rhetorica ad herennium*, Cicero (at least four copies), Terence (at least two copies), Horatius, Juvenal (at least two copies), Seneca (at least two copies), Ovid (at least four copies), various glosses on Virgil; Terence, Cato (at least three copies plus one gloss), Aristotle, Claudian, Fulgentius, Avianus (at least two copies plus a gloss), Avicenna, Boethius on Arithmetic and the *Consolation of Philosophy*, Aesopus, Macrobius, Arnulphi Aurelianensis' gloss on Luke; the *Speculi historiali*; Theodulus (plus a gloss), Odo of Cluny on music, St. Bernard on music, the *Divi Augustini musica*; Hugh of St. Victor's *Didascalicon*; and the *Historia Apollonii*. The manuscripts range in date from the eleventh to the fourteenth and fifteenth centuries. See Lehmann, as note 38: 115-118.

⁶⁷ Hugenroth, "Zum dichterischen Werk Bernhard Rottendorffs," in *Zum dichterischen werk des Münsterischen Arztes*, as note 64, 85-121, esp. 99-119, as well as the other chapters of the book for a more broad treatment of Rottendorff's own authorial works and interests and for a biographical sketch. Also Lehmann, as note 38: 126-127.

Münster, he compiled a catalogue of books and manuscripts then in the libraries of northern Germany, the Netherlands, and Sweden.⁶⁸ The catalogue is now, unfortunately, lost, as seems to be further information on Rottendorff's own collection.

Much of Rottendorff's library remained intact after his death in 1687, but strangely, the Vienna manuscript (MS 2527) was at some point separated out. Marquard Gude began buying Rottendorff's manuscripts as early as 1683, and eventually purchased at least twenty-nine manuscripts from him.⁶⁹ When Gude died, many of his manuscripts passed into the Wolfenbüttel library; among these was the fine library copy of Vitruvius and Theophilus, which we now know as Wolfenbüttel Codex Guelph Gudianus lat. 2°69. How Gude obtained the Wolfenbüttel manuscript, why he didn't acquire the Vienna manuscript from Rottendorff, and how this Vienna manuscript became separated from the rest of Rottendorff's collection, making its way along a different path to the Österreichische Nationalbibliothek, remains a mystery.

As manuscripts of Theophilus were transferred into libraries, and as the study of manuscripts grew as a discipline, *On Diverse Arts* became ever more appreciated as a medieval rarity and as a source for the history of technique. In 1699, Humphrey Wanley made for his own personal study a copy of Cambridge E e. 6 39, writing a clear, clean manuscript in his own elegant script. Wanley is known to have pursued a number of independent research projects on medieval manuscripts around this time, gathering and copying them. The training would serve him well; Wanley is best known as the librarian and procurer of manuscripts for Lord Harley, and as such he may have even been involved in the purchase of the Harley manuscript of Theophilus (Harley MS 3915) now

⁶⁸ Lehmann, "Aus dem Leben," as note 52: 109-110.

⁶⁹ Lehmann argues that Gude must have purchased many more as well. Lehmann, "Aus dem Leben," as note 52: 123-126.

preserved in the British Library. Wanley's own copy of *On Diverse Arts* must have been of personal value to him, however, for it stayed in his private collection, and survives today not as part of the Harleian collection, but as British Library Sloane MS 781.

Following Lessing's publication of *On Diverse Arts*, trade and circulation of manuscripts of the text again grew apace, as new editions of the text were prepared for publication. Charles de l'Escalopier, whose French translation of Theophilus appeared in 1843, seems to have owned three manuscripts of the text; all are now part of the l'Escalopier collection in Amiens. The eldest, MS l'Escalopier 46a, is a late fifteenth-century copy that is closely related to the Wolfenbüttel manuscript.⁷⁰ The other two were made under the supervision of de l'Escalopier himself. The older MS 47 was ordered in 1841 at the request of J.-Marie Guichard, librarian of the Bibliothèque Royale in Paris and author of the introduction to de l'Escalopier's translation. The manuscript was produced by the London publisher William Pickering, who had it copied by a certain M. Baker.⁷¹ It is written in a calligraphic cursive on large folios of fine Venetian paper. A careful transcription, it retains marginal notes copied from the original; additional notes in the margins mark oddities in the text, and were presumably made by Guichard to collate the text for his translation project. Stamp marks in the manuscript show that the book was part of de l'Escalopier's private library, which he gave to the library of Amiens in 1870.⁷² The youngest, MS 117, is a transcription of MS 46. Seals in the manuscript show that it was at one time owned by the Bibliothèque de l'Arsenal in Paris. The

⁷⁰ Amiens, Bibliothèque Municipale, l'Escalopier MS 46a. Dodwell, *DDA*, as note 5: lviii.

⁷¹ Letter from W. Pickering to J.-Marie Guichard, dated to 1841; flyleaf of Amiens, Bibliothèque Municipale MS 47D.

⁷² J. F. Delion, *Catalogue de la bibliothèque de M. le comte Charles de L'Escalopier: avec une notice sur sa vie, des notes historiques, littéraires, biographiques et bibliographiques, une table des noms d'auteurs, des ouvrages anonymes et des matières* (Paris: Delion, 1866-1867). Here, Amiens MS 47 is catalogue no. 2507.

Amiens copies show editorial concern with the quality of the text; used for study and comparative purposes, they demonstrate the scholarly interest in collating the texts of Theophilus in order to recreate an authentic, original text.

The way *On Diverse Arts* has been referenced, copied, and collected by such figures as Le Bègue, Agricola, Simmler or Feller bring to the fore the many functions Theophilus' text has served: for Le Bègue it offered information on the painting techniques of the past; for Agricola it was an alchemical curiosity; for Simmler it was a medieval and monastic rarity; and for Feller it was a precious survival surprisingly discovered among a collection of medical texts. For all four, the text was a rare survival offering a precious glimpse of the state knowledge in the period between antiquity and the present. Throughout the centuries, *On Diverse Arts* has been a text from which compilers, humanists, and academics gathered information about the history of artisanal technique as practiced in the Christian Middle Ages. Since so little is actually known about the text -- the identity of the author, his reasons for writing the text, or the purpose it served in its own time -- the tendency to value *On Diverse Arts* as a record of technical practices has taken center stage, buttressing preconceived notions about the medieval artist as a humble anonymous craftsman. Yet with an awareness of the purposes that informed these readings we may begin to look at *On Diverse Arts* anew, and be encouraged to consider the text in the terms in which it was written and in relation to the monastic culture for which it was produced, and discover a new way of understanding art making in the period.

Around Attribution: The State of the Question

The study of *On Diverse Arts* compels us to review our assumptions about medieval artists. While an early twelfth-century date is now largely accepted, the reticence in the text about authorship or origin has fostered contentious differences of opinion. These past controversies highlight many of the preconceptions and assumptions about the medieval artist which this dissertation will challenge and so they are worth reviewing, if briefly.

The earliest analysis of the text was by Lessing, who dated it to the ninth century and identified Theophilus as the legendary artist Tuotilo of St. Gall. On the basis of this identification, Lessing could link Theophilus to the famed traditions of manuscript illumination associated with the monasteries of St. Gall and Reichenau. Thus Lessing could claim that the invention of oil-painting, then seen as a major step in the history of Western art, took place not only in southern German lands, but 500 years earlier than originally thought.⁷³ In the nineteenth century, Theophilus was dated variously from the early eleventh to the thirteenth century, depending in large part on how the text was interpreted and classified.⁷⁴ Joseph-Marie Guichard, in his introduction to de l'Escalopier's translation of the text, situated *On Diverse Arts* within the context of the late twelfth- and thirteenth-century encyclopedias, linking Theophilus' treatise to such texts as Vincent of Beauvais' *Speculum maius*, while the nineteenth-century editor of the text, Sir Charles Lock Eastlake, who had served as director of the National Gallery in

⁷³ Lessing, *Vom Alter der Oelmalerey*, as note 1: 330.

⁷⁴ Abbé Jacques-Rémi-Antoine Texier, dated it to the late twelfth or early thirteenth century, in "Analyse de Traité de Théophile," *Annales Archéologiques*, ed. Edouard Didron (Paris, 1846) reprinted in Texier, *Dictionnaire d'orfèvrerie, de gravure et de ciselure chrétiennes*, ed. J.-P. Migne, Troisième et dernière encyclopédie théologique 27 (Petit-Montrouge: Migne, 1857) 1383-1393. In the first English edition of the text, Robert Hendrie argued it was written in the first half of the eleventh century: *Theophilus, qui et Rugerus*, as note 5: xv; while the French edition of Abbé Jean-Jacques Bourassé published in 1863 makes a claim for the mid-twelfth: Abbé Jean-Jacques M. Bourassé, "Essai sur Divers Arts... par Théophile, prêtre et moine, formant une encyclopédie de l'Art Chrétien au XII siècle," in Jacques-Paul Migne, ed., *Dictionnaire d'archéologie sacrée* 12 (Paris: Migne, 1863) cols. 729-1014.

London from 1855 to 1865, dated it to the thirteenth century and included Theophilus in his canon of literature on painting techniques.⁷⁵

Two distinct approaches to *On Diverse Arts* were adopted in the late nineteenth and early twentieth century, both of which remained prominent until the newer editions of Theophilus appeared in the 1960s. The first was posited by Albert Ilg, in his edition of the text, published in 1874.⁷⁶ Ilg was a student of Rudolph Eitelberger, the first professor of art history at the University of Vienna, whose documentary and object-driven approach would form the basis for the “Vienna School” of Art History. Ilg’s edition of Theophilus was a part of Eitelberger’s series of source material for the history of art, the *Quellenschriften für Kunstgeschichte und Kunsttechnik des Mittelalters*.⁷⁷ He was the first to use the Vienna manuscript as a source, recognizing that this manuscript, with its inscription naming Roger, provided the most significant evidence that Theophilus was a practicing artist.⁷⁸ That there was a tradition of naming and remembering the author as a certain Roger which extends all the way back to the Middle Ages is itself significant and may change our ideas about medieval artists; the identification, however, has largely led to debates about who Roger was. We have not yet asked why he was remembered.

Ilg was the first to argue that this Roger was the independently attested metalworker of the early twelfth century, Roger of Helmarshausen.⁷⁹ Roger is known

⁷⁵ Joseph-Marie Guichard also leaves open the possibility of a fourteenth-century date: Guichard, introduction to *Libri 3 seu Diversarum artium schedula*, as note 31: xlvi. Charles Locke Eastlake dates it to the late twelfth or early thirteenth century, in his study of the text; *Methods and materials of painting of the great schools and masters*, rpt. (New York: Dover Publications, 1960) 17.

⁷⁶ Albert Ilg, *Schedula Diversarum Artium*, as note 31.

⁷⁷ Rudolph Eitelberger and Albert Ilg, *Quellenschriften für Kunstgeschichte und Kunsttechnik des Mittelalters und der Neuzeit*, 18 vols. (Vienna: Braumüller, 1871/882); for a short history of the project, see the review of the text by A. L. F. Jr., in *The American Journal of Archaeology and of the History of the Fine Arts* 5 / 1 (1889): 63-64.

⁷⁸ Vienna ÖNB MS 2527, fol. 1r.

⁷⁹ While this connection was first made by Ilg in the nineteenth century, it has been largely accepted due to

primarily from a document which names him as the maker of a portable altar for Henry of Werl, Bishop of Paderborn, which still survives in Paderborn (Figure 4). From the attribution of this object have come a number of others, so that Roger has now been assigned a body of work, a career trajectory, and a circle of followers. In addition to the portable altar now in Paderborn, works attributed to him include a second portable altar, also in Paderborn (Figure 5), a jeweled cross now in Berlin called the Enger Cross (Figure 6,6a), a crucifix in Frankfurt (Figure 7), an engraved cross in Cologne (Figure 8) and a bookcover in Trier (Figure 9). Roger's style has also been discovered in an illuminated initial of the Stavelot Bible (Figure 10), which has led to the suggestion that he started his career at the abbey of Stavelot, in present-day Belgium, and later moved to the abbey of Helmarshausen, in the bishopric of Paderborn (See map, diagram 2).⁸⁰ Objects seen to be by the "circle of Roger" or the "followers" of Roger, include the shrine of St. Godehard in Hildesheim, a crucifix in Cologne (Figure 11), and a cross in Fritzlar (Figure 12). Ilg's identification and dating of Theophilus has been largely accepted, and formed the basis of Julius von Schlosser's entry on Theophilus in his *Kunstliteratur*, a compilation of artistic technical literature first published in 1924.⁸¹ Ilg's analysis of the connection between Theophilus and Roger remains the basis for the identification of the author, and Theophilus' place in the modern canon of art literature is owed in large part to von Schlosser's work, as he built upon a scholarly tradition that began as early as the manuscript of *Le Bègue*.

the work of Eckhard Freise, "Roger von Helmarshausen in seiner monastischen Umwelt," *Frühmittelalterliche Studien* 15 (1981) 180-293.

⁸⁰ Jeremiah Initial, Stavelot Bible, London, British Library Add. MS 28106, fol. 161r. For the trajectory of Roger's career, see Freise, "Roger von Helmarshausen," as note 79, and Lasko, "Roger of Helmarshausen, Author and Craftsman," as note 12.

⁸¹ Julius von Schlosser, *Die Kunstliteratur*, as note 9: 22-25.

Another suggestion for the identification of Roger was made in 1928 by Hermann Degering, keeper of manuscripts at the Prussian State Library in Berlin. In an article on the identity of Theophilus, Degering dated *On Diverse Arts* to the ninth or tenth century and suggested that the Wolfenbüttel manuscript, like the Vienna manuscript, originated at St. Pantaleon in Cologne.⁸² One of very few scholars to argue that Theophilus was not an artist but a writer, Degering situated *On Diverse Arts* within the context of St. Pantaleon's collection of technical literature and demonstrated its ties to Byzantine art and culture. Dating the Vienna manuscript to the tenth century on paleographical grounds, he further argued that "Theophilus" was not a pseudonym but the name of a Greek monk who came to Cologne, where he was given the Latin name "Rogerus." For Degering, it is the name Roger which is the pseudonym, not Theophilus. On the basis of an analysis of terminology and Latin usage, Degering claims that the Roger of *On Diverse Arts* was likely the same Roger as the "Roger" who wrote the *Vita* of the Archbishop Bruno of Cologne, the founder of St. Pantaleon.⁸³ With this argument, Degering created a narrative wherein Greek technique, and Greek art, was brought to Germany and to Cologne, spurred by the patronage of the Byzantine empress Theophanu, particularly at St. Pantaleon, in the late tenth century. The misdating of the manuscript, however, undermines his conclusions.

Five years later, in his 1933 translation of the text, Wilhelm Theobald, a doctor of engineering who served in the upper ranks of the Prussian government in Berlin in the 1920s, affirmed Degering's argument and argued again that Theophilus was indeed a Greek, who had come to Cologne, taken up the habit at St. Pantaleon, become known to

⁸² Degering dated it to the ninth or tenth century in "Theophilus Presbiter" as note 12: 256.

⁸³ Degering, "Theophilus Presbiter," as note 12: 257.

the Latins as Roger, and written a book that brought together the knowledge of Greek art, especially Byzantine painting and metalwork, and the skills of German art.⁸⁴ Theobald, a scholar of the history of engineering, only translated the second and third books, those dealing most closely with what could be seen as industrial techniques, and he thus presents Theophilus as a key figure in the history of technology.

Theobald's book has a distinctly nationalist cast as well. Emphasizing Theophilus' little-known role in German history, the forward begins with a quotation from Goethe's *Faust* on the importance of possessing one's heritage: "All that you have, bequeathed you by your father, earn it in order to possess it."⁸⁵ Theobald then continues: "Despite the fact that it was written, a thousand years ago, on German soil, *On Diverse Arts* of Theophilus presbyter remains unknown to most Germans.... We have German works on the technology of the Egyptians, Greeks and Romans, most recent German expenditure on local as of foreign metallurgy of the Renaissance. But the medieval Benedictine monk's unique collection of technological writings still awaits its deserved appreciation."⁸⁶ Theobald builds on Degering's conclusions to make Theophilus a true German and interprets the Byzantine component as a part of the artistic heritage that stretches from Greece and Rome to the Holy Roman Empire and beyond, to modern Germany. The nationalistic strain of Theobald's interpretation did not go unnoticed: a

⁸⁴ Wilhelm Theobald, *Technik des Kunsthandwerks im zehnten Jahrhundert: Des Theophilus Presbyter Diversarum Artium Schedula* (Berlin: Verein Deutscher Ingenieur, 1933).

⁸⁵ From *Faust*, part one, scene one: "Was du ererbt von deinen Vätern hast, erwirb es, um es zu besitzen." I quote here the translation of the phrase by George Madison Priest from: Johann Wolfgang von Goethe, *Faust*, trans. George Madison Priest (New York: Knopf, 1963) 23.

⁸⁶ "Obwohl vor einem Jahrtausend auf deutscher Erde geschrieben, ist die *Diversarum artium schedula* des Theophilus Presbyter der Mehrzahl der Deutschen fremd geblieben.... Wir haben deutsche Werke über die Technik der Agypter, Griechen und Römer, neueste deutsche Ausgaben einheimischer wie fremdländischer Metallurgien der Renaissance. Aber des mittelalterlichen Benediktinermönches einzigartige Sammlung technologischer Vorschriften harrt noch immer der gerechten Würdigung." Theobald, *Technik des Kunsthandwerks*, as note 84: Foreword, xi.

copy of Theobald's edition was even owned by Hitler himself, highlighting the sometimes dark repercussions of the long history of our text and the agendas which interpretations of it have served.⁸⁷

An early twelfth-century date and north German provenance is now largely accepted, thanks to Charles Reginald Dodwell's 1961 edition and translation of *On Diverse Arts*. Dodwell's study was based on evidence derived from all four of the earliest manuscripts, but especially the oldest two, those now in Wolfenbüttel and Vienna. These he found were both datable to the mid-twelfth century on the basis of paleography and both could be localized to northern Germany.⁸⁸ In addition to the manuscript evidence, Dodwell drew on textual peculiarities that placed the treatise solidly in the realm of twelfth-century culture and, more specifically, northern German. Prose style, a scattering of German words in the manuscripts, and the use of unusual phrases such as *armariolum cordis* ("the casket of the heart") an expression derived from the Arabic via the *Disciplina clericalis* of Petrus Alphonsus, of 1106.⁸⁹ Dodwell also began the work of situating the text in relation to twelfth-century religious writing, arguing that themes introduced by Theophilus, such as a reference to the gifts of the Holy Spirit in the third prologue, an assertion of man's image-likeness to God and his capacity for reason, and a

⁸⁷ Now in Library of Congress, Washington DC.

⁸⁸ Wolfenbüttel, Herzog-August Bibliothek cod. Guelph Gudianus lat. 2^o69, fol. 1r. Vienna ÖNB MS 2527, Dodwell, as note 5: xxii-xxxiii. For the Wolfenbüttel manuscript see: *Kataloge der Herzog-August-Bibliothek Wolfenbüttel, die Gudischen Handschriften* 9 (Frankfurt am Main: Vittorio Klostermann, 1966) 121-122; and for the Vienna manuscript, Otto Mazal, *Byzanz und das Abendland, Ausstellung der Handschriften- und Inkunabelsammlung der Österreichischen Nationalbibliothek, Handbuch und Katalog* (Graz: Akademische Druck - und Verlagsanstalt, 1981) II, 486, no. 388; *Tabulae codicum manu scriptorum, praeter graecos et prientalis in bibliotheca palatina Vindobonensi asservatorum* (Graz: Akademische Druck - und Verlagsanstalt, 1965) II, 92.

⁸⁹ One such example of interspersed vernacular German is the use of the term *meizel* in the chapter on openwork, Theophilus, Book III, ch. lxxii; Dodwell, *DDA*, as note 5: 130 and Introduction, xviii-xx.

description of the image of the suffering Christ on the cross all correspond to twelfth-century trends.⁹⁰

Dodwell also gathered art historical evidence: Theophilus' description of techniques such as *émail brun*, and the practice of layering colors in wall-painting, as well as the making of objects such as the cast censer Theophilus discusses in detail, he argued, all point to a twelfth-century date for the text. *Émail brun* is a technique of gilding copper, as visible on the underside of the mid-century portable altar of the abbey of Stavelot (Figure 13, 13a), while the method layering of colors described by Theophilus is most apparent in an image of a prophet from St. Gereon in Cologne (Figure 14); an example of a cast censer, like that described by Theophilus is the so-called Gozbertus censer, now in Trier (Figure 15). Dodwell also argued that the apparent privileging of German metalwork in the text, most notable in list of regions and their artistic expertise found in the first prologue, would support a German provenance.⁹¹ With few exceptions, recent scholars of the text have accepted Dodwell's dating, seeing Theophilus as belonging to the early twelfth-century world of Abbot Suger of Saint-Denis, Hugh of St. Victor, Rupert of Deutz, and Bernard of Clairvaux.⁹²

The dating of *On Diverse Arts* has been in large part based on visual similarities between surviving objects and techniques described by Theophilus. This has confirmed

⁹⁰ Dodwell, *DDA*, as note 5: xx-xxv.

⁹¹ Dodwell, *DDA*, as note 5: xxv-xxxvi; and Theophilus, Prologue I; idem: 4.

⁹² As recently as 1964 Mojmir S. Frinta suggested an eleventh-century date for the text: "A Note on Theophilus, Maker of Many Wonderful Things," *Art Bulletin* 46 (1964) 525-529, at 528; which largely corresponds to the conclusions of Heinz Roosen-Runge, who dated the text to the early eleventh century, and situated it in the region of Lake Constance, on the basis of a correspondence between the painting techniques evident there and those described in *On Diverse Arts*. "Die Buchmalereirezept des Theophilus," as note 9: 159-171. The most recent studies of Theophilus' readership within this particular sphere include Virginia C. Raguin, "The Reception of Theophilus' *De diversis artibus*," and Birgitte Kurmann-Schwarz, "[...] *quicquid discere, intelligere vel excogitare possis artium* [...]" le traité *De diversis artibus* de Théophile, état de la recherche et questions," both, in Boulanger and Hérold, eds. *Le Vitrail*, as note 18: 11-28 and 29-44.

the tendency to think of *On Diverse Arts* as a guide written by an artist for practicing craftsmen – an interpretation which is certainly not wrong but in many ways insufficient. Even though he falsely dated the text to the ninth century and identified Theophilus with Tuotilo, Lessing’s idea that the text was written by an artist has largely held fast, even as dates and names associated with the text have changed.

The majority of instructions contained in *On Diverse Arts* are, in fact, plausible, detailed, and thorough.⁹³ Each chapter of every book is dedicated to a technique, and as Reudenbach, has noted, they nearly always focus on the making of a specific object: “How [Powdered] Gold and Silver are applied in Books,” “Flasks with a Long Neck,” or “The Repoussé Censer.”⁹⁴ The book, moreover, is heavily weighted toward metalwork, and this has encouraged the idea that it was written by a metalworker. While there are thirty-six chapters in the book on painting and thirty-one in the book on glass, there are ninety-six in the book on metalwork. The instructions characteristically describe complex processes in a number of stages: the procedure for making a silver chalice, for example, is laid out in five chapters which describe melting the silver, refining it, measuring it, casting it into a circular form, and finally, beating it into the shape of the chalice.⁹⁵ Precious few chalices survive, and those that do are generally highly ornate, with much gilding and multiple cast parts; the mid-twelfth-century Wilten Chalice, now in Vienna, was made, in part, by the process Theophilus describes (Figure 16). This precision, along

⁹³ It is often noted that Theophilus’ descriptions are not always plausible, such as the description of making Spanish Gold, “prepared from red copper, powder of basilisk and human blood and vinegar.” Book III, ch. xlviii; Dodwell, *DDA*, as note 5: 96-97.

⁹⁴ Theophilus, Book I, ch. xxix, “How [Powdered] Gold and Silver are Applied in Books;” Dodwell, *DDA*, as note 5: 28; Book II, ch. xi, “Flasks with a Long Neck;” idem: 44; and Book III, ch. lx, “The Repoussé Censer;” idem: 111-112.

⁹⁵ Book III, chapters xxii-xxvi: “Crucibles for Melting Gold and Silver,” “The Refining of Silver,” “Dividing up the Silver for the Work,” “Casting Silver,” and “Making the Smaller Chalice;” Dodwell, *DDA*, as note 5: 74-79.

with the text's emphasis on metalwork, lies behind the widespread assumption that *On Diverse Arts* is a book of the recollected knowledge of a practicing craftsman, most likely a metalworker, and very probably Roger of Helmarshausen, compiled at the end of his career.⁹⁶

While the literature employing *On Diverse Arts* in technical analysis is extensive, a recent historiographical study by Baumann-Schwarz has suggested that more and more scholars are beginning to interpret *On Diverse Arts* as a theoretical source, a written exercise more or less divorced from practice.⁹⁷ A recent article by Andreas Speer and Hiltrud Westerman-Angehausen, for example, argues that central to Theophilus studies is the question of whether *On Diverse Arts* was a primarily a spiritual text or a practical one.⁹⁸ While these studies show a shift in thinking, the approach still assumes a simplicity to the text, a one dimensionality, a need to see it as either theoretical or practical, never something more complex, never both. In this study I will argue that it could operate in more than one sphere, serve more than one function, that its interest lies precisely in the way it bridges theory and practice, intertwining them.

Overview and Approach

In this dissertation I question the practice of seeking to place *On Diverse Arts* in a single genre, to define it according to a single purpose, or to assume a split between its theoretical and practical purposes. I use the extant manuscripts as the starting point from

⁹⁶ Dodwell, *DDA*, as note 5: xv-xvii, xxxvi-xxxix. See also note 12, above.

⁹⁷ Kurmann-Schwarz, "*quicquid discere*," in *Le Vitrail*, as note 92. For the literature on Theophilus as a technological source, see Birgit Bäsch, *Kölner Goldschmiedekunst*, as note 9; David Buckton, "Theophilus and Enamel," as note 9; Donald Royce-Roll, "Twelfth-Century Stained Glass Technology," as note 9; and idem, *The Importance of Two Twelfth-century Glass Texts*, as note 9; for painting techniques: Roosen-Runge, "Die Buchmalereirezepte des Theophilus," as note 9; and idem, "Die Farben- und Malrezepte," as note 9; and Gullick, "A Bibliography of Medieval Painting Treatises," as note 9.

⁹⁸ Speer and Westermann-Angerhausen, "Ein Handbuch mittelalterlicher Kunst?" as note 2.

which to gather evidence about readership, literary context, and function. Ultimately my goal is to demonstrate how the diverse materials in *On Diverse Arts* might be brought to bear on our understanding of the art object. Theophilus does not simply record techniques nor does he simply justify religious art from a Benedictine perspective; the book can be seen to function as an integrated whole, with prologues and recipes set in reciprocal relation to each other. The text is tightly structured and written at a sophisticated literary level. Trying to account for the patterns and recurring tropes in the text, for its eccentricities and for its inclusions and exclusions, I examine the text in light of significant literary, exegetical, and pedagogical currents in the early twelfth century, and show how it conforms to contemporary textual evidence from other sources on artists, on labor, on learning, on spirituality. My overarching concern is to situate *On Diverse Arts* in its cultural context and in the milieu in which the text first surfaces in manuscript copies: the valley of the Rhine and Meuse rivers of the early and mid-twelfth century. The region was home to a number of Benedictine monasteries, to a burgeoning mercantile economy based in the urban centers of Liège, Huy, Cologne, and Maastricht, inhabited by increasing numbers of tradesmen and lay craftsmen. Much of the economic growth of the region was owed to the trading and mining of metals, in which abbeys and cities alike played a part. Consideration of these factors sheds light on Theophilus' possible agendas and on many characteristics of the text, as well as on the artistic production of the time. Each chapter focuses on a particular manuscript of *On Diverse Arts*, drawing out evidence that leads to new considerations of the values at stake in the art making of the period.

Chapter two opens with an analysis of the Wolfenbüttel manuscript, the library volume containing a copy of Vitruvius' *De architectura*, and uses evidence contained in this copy of *On Diverse Arts* to begin a close examination of the structure of the text. I here look closely at the rhetoric of the text, and consider the relation between theory and practice, a connection that cuts across both instructions and prologues. I interpret the text and its overarching structure in relation to pedagogical, exegetical, and monastic texts of the time. The third chapter uses the Vienna manuscript, the manuscript containing reference to Rogerus, to begin a reassessment of the evidence for the attribution of the text to Roger of Helmarshausen. The implications of the inserted inscription lead to a consideration of the ideas of authorship and artistic identity and memory, and also to the study of the circulation and exchange of objects, materials, and artists within the local context of the early twelfth-century Rhine-Meuse Valley. The fourth chapter opens with the early thirteenth-century Harley manuscript, containing the longest extant version of the text, and examines the relation between artist and object. It considers how the virtues defined in Theophilus' text, as a set of abstract ideas, might be put into practice in the work of the artist. The last chapter begins with the thirteenth-century Cambridge manuscript – a manuscript first bound with a number of scientific texts. From this point of departure, the chapter looks at the “afterlife” of the text, examining the manuscripts, their variations over time, and the other texts with which *On Diverse Arts* was bound to try to determine the kinds of functions which the text has served, and the kind of learning that the treatise was considered to offer. Throughout the dissertation, I demonstrate how the theories of art and art-making that emerge in Theophilus' text could be made manifest in works of art. Ultimately, reading Theophilus in a new light and looking again at

twelfth-century *ars sacra* through the recalibrated lens of *On Diverse Arts* has significant consequences for the study of medieval art.⁹⁹ The exploration of themes of spirituality, authorship and memory, of labor, learning and value that are addressed in *On Diverse Arts* lead to new ways of reading forms, determining meanings, and understanding early twelfth-century art more generally.

Theophilus' text has indeed been much studied. The number of translations and editions continues to multiply. Six editions and translations of the text were published in the nineteenth century, in German, French, English, and Polish, based on various collations of eight of the oldest and most complete manuscripts.¹⁰⁰ In the twentieth century, eleven more editions came into circulation across the globe.¹⁰¹ Yet the text remains curiously puzzling and like the medieval artist himself, not well understood; the

⁹⁹ Michael Baxandall, *Painting and experience in fifteenth century Italy: a primer in the social history of pictorial style* (Oxford: Clarendon Press, 1972).

¹⁰⁰ These are: de L'Escalopier, *Libri 3 seu Diversarum artium schedula*, as note 31; L'Escalopier's edition accounted for the Cambridge University Library 1131, Paris BnF lat. 6741, Wolfenbüttel Gud. Lat. 2^o69, Egerton 840A, Venice, Lat. vi. 199 (3597), and Leipzig MS 1157; the first English translation was by Robert Hendrie, *Theophilus, qui et Rugerus*, published in 1847, as note 5; Hendrie's work relied heavily on the edition of l'Escalopier (note 31) but, importantly, added to the group British Library, Harley 3915; Paris Bibl. Nat. lat. 6741 was published in part by Mary P. Merrifield, as note 14; the 1863 edition of Bourassé, "Essai sur Divers Arts," as note 74, drew on Hendrie's edition, using Harley and Egerton manuscripts; Albert Ilg, *Schedula Diversarum Artium*, as note 31, accounted for the most manuscripts of the group, using former editions of Escalopier, Hendrie, and Raspe but collating Wolfenbüttel and Leipzig, with the Vienna manuscript, which he was the first to use. Dodwell, however, has criticized Ilg's accuracy. Dodwell, *DDA*, as note 5: lvi. Two lesser known editions include: Theophilus Presbyter, *Diversarum artium schedula liber secundus Theophilus, Presbyter*, ed. Georges Bontemps (Paris: Libraire du Dictionnaire des arts et manufactures, 1876); and Teofil Zebrowski, *Teofila o sztukach rozmaitych* (Kraków: Akademii Umiejetnosci, 1880). I have not consulted these last two.

¹⁰¹ In addition to Dodwell's edition of 1961, as note 5, and Smith and Hawthorne's edition of 1963, as note 8, there exists: *Traité des divers arts par Théophile, prêtre et moine*, (Paris: Émile Paul Frères, 1924); Theobald, *Technik des Kunsthandwerks*, as note 84; Wilhelm Hanke, *Kunst und Geist. Das philosophische und theologische Gedankengut der Schrifte 'De Diversis Artibus' des Priesters und Mönchs Theophilus Rugerus* (Bonn: Hofbauer, 1962). Other editions include: André Blanc, ed. *Essai sur divers arts en trois livres* (Paris: Picard, 1980); Vilmos Takács, *Theophilus Presbyter - A különféle művészégerkö* (Budapest: Müszaki Könyvkiadó 1986); Theophilus Presbyter, *Samazama no gino ni tsuite*, trans. Hiroshi Mori (Tokyo: Chuo Koron Bijutsu Shuppan, 1996); Theophilus Presbyter, *Traité des divers arts* (Lyon: Editions du Cosmogone, 1998); Theophilus Presbyter, *De diversis artibus; manuale di tecnica artistica medievale*, ed. Adriano Caffaro (Salerno: Palladio, 2000); Theophilus Presbyter, *Las diversas artes: tratado medieval sobre pintura, trabajo en vidrio y metalistería* (México: La Rana, 2002).

stereotype of a humble, anonymous artisan has imposed limitations on how Theophilus is read. Theophilus has been seen, for example, in contrast to the “learned personality” of the Renaissance artist, representing the “mere craftsmen” of “previous ages, [when] ‘art’ had not been clearly differentiated from humble, workaday ‘craft’.”¹⁰² *On Diverse Arts* has therefore been understood as straightforward and self-sufficient, written with little sophistication and no underlying agenda. As will be shown, the classification of *On Diverse Arts* as a kind of technical literature is certainly not unwarranted, and the ideal of the humble artisan is certainly championed in the text; but this is only the beginning. While *On Diverse Arts* is related to technical literature, it is not necessarily always of it; technical knowledge did not serve only hands-on practice.¹⁰³ Similarly, the vocation of the Christian artist may emerge according to tropes of humility, but the tropes themselves can serve a range of functions.¹⁰⁴ These tropes prove to align with the technical side of

¹⁰² The reference is from the introduction to Emma Barker, Nick Webb, and Kim Woods, eds. *The Changing Status of the Artist* (New Haven: Yale University Press, 1999): 7-8.

¹⁰³ The problem of genre is one that has been much discussed in recent years. In medieval studies it has become particularly evident in “New Philology,” based largely on the idea that just as there are multiple manuscripts there may be multiple functions and understandings of a text, and the search for the “original” text is always fraught. See Bernard Cerquiglini, *In Praise of the Variant: a Critical History of Philology*, trans. Betsy Wing (Baltimore: Johns Hopkins University Press, 1999), also A. J. Minnis, A. B. Scott, and David Wallace, *Medieval Literary Theory and Criticism* (Oxford: Clarendon Press, 1988); and volume 65 / 1 of *Speculum* (1990) which was dedicated exclusively to New Philology, including Lee Patterson, “On the Margin: Postmodernism, Ironic History, and Medieval Studies,” 87-108; Gabrielle M. Spiegel, “History, Historicism, and the Social Logic of the Text in the Middle Ages,” 59-86; R. Howard Bloch, “New Philology and Old French,” 38-58; Suzanne Fleischman, “Philology, Linguistics, and the Discourse of the Medieval Text,” 19-37; Stephen Nichols, and Siegfried Wenzel, eds., *The Whole Book: cultural Perspectives on the Medieval Miscellany* (Ann Arbor: University of Michigan Press, 1996). For a study of how medieval texts may serve multiple functions, across genres, see, for example, Karine Ugé, “Creating a Usable Past in the Tenth Century: Folcuin’s ‘Gesta’ and the Crises at Saint-Bertin,” *Studi Medievali*, ser. 3, vol. 37, no. 2 (1996) 887-903.

¹⁰⁴ There has been much written on tropes of artists, but studies have focused less on the Middle Ages than with the early modern and modern eras or on tropes related to artists and art making. The classic text on the subject is Ernst Kris and Otto Kurz, *Legend, Myth, and Magic in the Image of the Artist: a Historical Experiment*, trans. Alistar Laing (New Haven: Yale University Press, 1979); see also Carl Goldstein, “The Image of the Artist Reviewed,” *Word and Image* 9/1 (1993) 9-18; and for artist narratives in relation to

the text to form a sophisticated narrative with significant implications for our understanding of the medieval artist and medieval art-making. The nature of this narrative will emerge as we look more closely at the manuscript from Wolfenbüttel in the next chapter.

collections of art, Thomas Ketelsen, *Künstlerviten, Inventare, Kataloge: Drei Studien zur Geschichte der kunsthistorischen Praxis* (Ammersbek: Lottbeck Jensen, 1990). Bruno Reudenbach has argued that Theophilus' claim to humility is a trope stemming from the formulae of medieval prologues, in "Werkkünste und Künstlerkonzept," as in note 18. For the problems of studying medieval artists see Lawrence Nees, "The Originality of the Early Medieval Artists," *Literacy, Politics and Artistic Invention in the Early Medieval West*, Papers Delivered at 'A Symposium on Early Medieval Culture,' Bryn Mawr College, Bryn Mawr, PA, ed. Celia Chazelle (New York: New York University Press, 1989) 77-109. For issues regarding artists' names in the Middle Ages, see Peter C. Claussen, "Künstlerinschriften," in *Ornamenta Ecclesiae*, exh. cat. (Cologne: Schnütgen Museum, 1985) I, 263-276; and Claussen, "Nachrichten von den Antipoden oder der mittelalterlichen Künstler über sich selbst," *Der Künstler über sich und in seinem Werk: internationales Symposium der Bibliotheca Hertziana, Rom 1989*, ed. Matthias Winner (Weinheim: VCH, Acta Humaniora, 1992): 19-54. For the problem of tropes in history writing, see C. Stephen Jaeger, "Pessimism in the Twelfth-century 'Renaissance'," *Speculum* 78 / 4 (2003) 1151-1183; for tropes within saints' stories, see Ineke van 't Spijker, "Model Reading: Saints' Lives and Literature of Religious Formation in the Eleventh and Twelfth Centuries," 'Scribere sanctorum gesta,' *Recueil d'études d'hagiographie médiévale offertes à Guy Philippart*, ed. Étienne Renard et al. (Turnhout: Brepols, 2005) 135-156; and for the tropes around saints in art, see Cynthia Hahn, "Picturing the Text: Narratives in the 'life' of Saints," *Art History* 13 / 1 (1990): 1-33, and Hahn, "Seeing and Believing: The Construction of Sanctity in Early Medieval Saints' Shrines," *Speculum* 72 / 4 (1997): 1079-1106.

Chapter Two

Pedagogy and Exegesis in *On Diverse Arts*: Learning for the Mind and Spirit

In the mid-twelfth century manuscript of *On Diverse Arts* in Wolfenbüttel, the text follows directly upon an eleventh-century copy of Vitruvius' *On Architecture* (Figure 1b). The Wolfenbüttel manuscript seems to have been a library volume and highlights the scholarly aspect of *On Diverse Arts*. It is quite large, at 285 x 205 mm, and is written in a clear, neat, script in two columns on clean parchment. The ownership mark locating the manuscript at St. Pantaleon is found on the first folio: *Codex mon[asterii] s[an]c[t]i pantaleonis in Colonia*. This inscription postdates both texts in the volume, but not by a large margin; it likely was written between the later twelfth and fourteenth centuries. It also appears to have been written over an earlier inscription, though this is barely visible.¹ While the precise origin of this manuscript is not known, the paleographical considerations and the inscription make it likely that it originated in the region of Cologne.²

¹ Dodwell writes that R.A.B. Mynors, classicist and translator of humanist texts, examined the inscriptions under ultraviolet light, but then too, it remained completely illegible. Dodwell, as note 5: lviii.

² Bernhard Bischoff has also argued for a Cologne origin of the text on the basis of paleography. Bischoff, "Die Überlieferung des Theophilus-Rogerus nach den ältesten Handschriften," *Mittelalterliche Studien, ausgewählte Aufsätze zur Schriftkunde und Literaturgeschichte* 2 (Stuttgart: Hiersemann, 1967) 175-182; 176.

Through its place in the twelfth-century volume we are encouraged to read Theophilus as we might the ancient author.³ This chapter will offer a close reading of the text, taking into consideration the significance of this conjunction with Vitruvius and viewing the work in relation to contemporary monastic thought. The focus of analysis will be the organization of the work. The three books of instructions, prefaced by three prologues, reward a reading that considers them in relation to each other. The text emerges as a coherent whole, a sophisticated treatise with a distinct purpose and agenda. *On Diverse Arts* carefully configures its subject; very different from other “recipe books,” its ordering principles and themes find their root in twelfth-century ideas of theory and practice that are well expounded in the exegetical texts of Rupert of Deutz and the pedagogical texts of Hugh of St. Victor. This approach to text helps us to expand our concept of medieval art theory.

The Wolfenbüttel Manuscript

The layout of the pages containing *On Diverse Arts* imitates so closely the mise-en-page of the earlier text that there is a visible continuity between the two. As a fine library volume, setting the modern learning of Theophilus alongside the ancient learning of Vitruvius, the Wolfenbüttel manuscript gives evidence of how Theophilus was perceived in the twelfth century and how *On Diverse Arts* might have been read. That the manuscript contains a medieval ex-libris inscription from the monastery of St. Pantaleon in Cologne (Figure 1a),⁴ puts it in the realm of one of the larger monastic scriptoria and

³ Wolfenbüttel Herzog-August Bibliothek, cod. Guelph Gudianus lat. 2^o69 also known as “G”.

⁴ The inscription reads: *codex mon[asterii] s[an]c[t]i pantaleonis in Colonia*, fol. 1r. For the library at St. Pantaleon more generally, see Regina Pütz, *Die Bibliothek des Klosters St. Pantaleon in Köln bis zum 13. Jahrhundert: Studien zum geistigen Leben*, Ph.D. diss. (Bonn: Regina Pütz, 1998).

libraries of the region in the twelfth century (Figure 17).

Correspondences between the transcriptions of Vitruvius and Theophilus make it highly likely that the texts were bound together at St. Pantaleon's from an early date. Theophilus' project, viewed in conjunction with Vitruvius' book on architecture, seems to align in important respects, to the point that it seems that the author may have written with Vitruvius in mind, using the ancient writer as a point of reference, if not as an actual source. For Vitruvius, "the several arts are composed of two things – craftsmanship and the theory of it. Of these the one, craftsmanship, is proper to those who are trained in the several arts, namely, the execution of the work; the other, namely, theory, is shared with educated persons."⁵ Seen from this perspective, *On Diverse Arts* may be understood as an attempt to make technical and theoretical knowledge converge; like Vitruvius, the author sets out to provide an orderly account of craftsmanship and art theory. Theophilus lays out a field of artistic knowledge in three books, just as Vitruvius had done in ten; yet adjusting for his Christian context, Theophilus theorized about art in accordance with the topoi of monastic learning.

Although the manuscript is now bound in a sixteenth-century leather cover, there is every reason to assume that Vitruvius' and Theophilus' texts, the one written in the eleventh century, the other in the twelfth, belong together. Both are transcribed in two columns, with wide side margins, and have nearly the same number of lines on each page – thirty-four lines in the section containing *De architectura*, thirty-eight in the section containing *De diversis artibus* (Figures 1a, 1b).⁶ Both texts open with a four-line initial

⁵ Vitruvius, *De architectura*, ed. and trans. Frank Granger, 2 vols. (Cambridge, MA: Harvard University Press, 1931, rpt. 2002) Book I, ch. 1, 21.

⁶ The parchment in the Vitruvius section of the manuscript measures 20.5 x 28.5 cm, with the bottom margin measuring 3.5 cm, the right margin 3 cm, the left 1.5, the top 1.5, and the middle 1.5. The

in black, rendered in a stylized rounded display script; the red and black initials that punctuate the text of Vitruvius were likewise imitated in the transcription of Theophilus' text (Figures 1, 1a). The parchment is clean throughout and of similarly high quality in both parts. There are no drawings in either section of the manuscript, and just a few corrections of the Latin, underlinings, and *nota* marks, but no marks or stains that would imply workshop use. The text does show signs of use and wear, however, as oil and dirt concentrate particularly on the first pages of the prologue to Theophilus' Book one. Surprisingly for such an otherwise finely made text, the quires of the volume are not standard nor are they regular. In both sections bifolios have been cut, as revealed by stubs seen between quires or within them. This oddity, and that it is similar across both texts, might suggest a practice of assembling quires peculiar to the scriptorium, even if the transcriptions are distinct in date on paleographical grounds.

Vitruvius' *De architectura*, much admired in the Middle Ages, was available for study at St. Pantaleon; it is not unlikely that a writer like Theophilus would have been familiar with the text. The copyist of the Wolfenbüttel manuscript certainly saw a parallel between the two, and this alone makes the circulation and twelfth-century comprehension of Vitruvius important for our understanding of *On Diverse Arts*. Some seventy-eight manuscripts of Vitruvius survive, of which four have been localized to Cologne: a ninth-century manuscript now in London, an eleventh-century copy in Brussels, a twelfth-century copy now in the Vatican, and the twelfth-century Wolfenbüttel copy containing

measurements of the Theophilus section are very close, with the space left between the two columns exactly the same: the page is 20.5 by 28.5, the bottom margin is 2.5 cm, the right 2, the left 2, the top .5 and the middle 1.5 cm. There are 34 lines per page in Vitruvius, and 37 in Theophilus. See Appendix A for detailed measurements of the manuscript.

On Diverse Arts.⁷ The library of St. Pantaleon appears to have owned both the London and Wolfenbüttel copies. The London manuscript is now British Library Harley MS 2767, and is the oldest surviving copy of Vitruvius.⁸ The manuscript has been connected to the abbey of St. Pantaleon through an inscription on folio 145v that reads *Goderamnus propositus*, or “placed forth by Goderamnus.” The reference is to one Goderamnus, a monk of St. Pantaleon in the 1020s and later the abbot of St. Michael’s in Hildesheim,⁹ and it identifies the monk as the author of a drawing of a cross on the same folio; his hand has been identified in the upper margins of four folia, marking words and phrases in the text in a way that suggests an interest in the lexicon of Vitruvius.¹⁰

The Wolfenbüttel manuscript attests to a no less close reading of Vitruvius. Brackets and underlinings throughout the text call attention to particular passages, such as those in which the Roman author considered the quality of the air and the burial of the dead, or the quality of water.¹¹ This manuscript evidence supports Stefan Schuler’s conclusions with respect to the use of Vitruvius in the high Middle Ages. He finds that Vitruvius was not valued so much as a set of technical prescriptions, but rather as a text on architectural theory, that was interesting for the way it defined characteristics of an

⁷ For a catalogue of manuscripts, see Carol Herselle Krinsky, “Seventy-Eight Vitruvius Manuscripts,” *Journal of the Warburg and Courtauld Institutes* 30 (1967) 36-70, 41, London, British Library Harley 2767: 51-52; Brussels, Bibliothèque Royale/Koninklijke Bibliotheek MS 5253, 44-45; Vatican, Biblioteca Apostolica Vaticana, Urb. Lat. 293 (ex-292), 65; and Wolfenbüttel Gud. 2^o69: 48. Although evidence points to a Cologne origin, Frank Granger’s argument that the manuscript originated at Jarrow, first printed in the Loeb edition of the text in 1931 remains well-known. See Frank Granger, introduction to Vitruvius, *On Architecture*, as ch. 2, note 5: xvii-xix. Leslie Webber Jones, however, argued convincingly for a Cologne origin: “The Provenance of the London Vitruvius” *Speculum* 7/1 (1932) 64-70.

⁸ Krinsky, as ch. 2, note 7: 51-52, See Jones, as ch. 2, note 7; and Granger, as ch. 2 note 5: xvi-xviii.

⁹ Fol. 145v: *Godera(m)nus p(ro)posit(us)*. The folio, like four others in the manuscript, is otherwise blank, it was perhaps intended for an illustration, although Jones argues it is because the parchment was too thin. See Jones, as ch. 2, note 5: 65 n. 2; Krinsky, as ch. 2, note 7: 51; and Granger, as ch. 2, note 5: xvi-xvii.

¹⁰ Fols. 27r, 98v, 144v, and 159r. Jones, as ch. 2, note 5: 65; and Krinsky, as ch. 2, note 7: 51. The marginal notes have not been published.

¹¹ Fol. 6v, 59r.

architecture and an urban space that would make best use of the surrounding natural environment and best serve communal needs.¹² Although both copies of Vitruvius appear to have been at St. Pantaleon, the Wolfenbüttel copy does not seem to have been copied from the older London manuscript: the two manuscripts represent two of the earliest recensions of the text.¹³ The presence of both at St. Pantaleon demonstrates a continuing interest in the Roman author at the Cologne monastery, carefully read and studied for lexicographical interest on the one hand, and for ideals of the harmonious coexistence of man and nature on the other.

On Diverse Arts even mimics *On Architecture* in its organization. Theophilus, like his predecessor, provided each book with a prologue. This alternation between text and preface is unusual in medieval texts, where a single prologue before the entire text usually suffices.¹⁴ Both Vitruvius and Theophilus use the prologues to provide an overview of the purpose of the book that follows, framing each body of information according to its purpose and the principles on which it rests. The connection between Theophilus' and Vitruvius' text is thus more than merely circumstantial. If the monastic author intentionally modeled his text after the Roman tract, then he may have seen it as a challenge and a spur; if Theophilus is Roger of Helmarshausen, it is significant that

¹² Stefan Schuler, *Vitruv im Mittelalter: Die Rezeption von 'de architectura' von der Antike bis in die frühe Neuzeit* (Cologne: Böhlau Verlag, 1999).

¹³ For discussions of recensions, see Jones, "The Provenance of the London Vitruvius," as ch. 2, note 7: 65; and Granger, introduction to Vitruvius, *On Architecture*, as ch. 2 note 5: xvii-xix. For evidence of readership of Vitruvius in the Middle Ages, see Karl-August Wirth, "Bemerkungen zum Nachleben Vitruvs im 9. und 10. Jahrhundert und zu dem Schlettstädter Vitruv-Codex," *Kunstchronik* 20 (September 1967) 281-291.

¹⁴ My thanks to Helmut Puff for bringing this to my attention. A.J. Minnis, *Medieval Theory of Authorship: Scholastic Literary Attitudes in the Later Middle Ages* (London: Scolar Press, 1984); Edwin A. Quain, "The Medieval Accessus ad Auctores," *Traditio* 3 (1945): 215-264; Hildegard of Bingen does introduce each of the sections of her medical text with a prologue; see Hildegard of Bingen, *Physica, the complete English translation of her Classic work on Health and Healing*, trans. Priscilla Throop (Rochester, VT: Healing Arts Press, 1998).

Roger is known from necrologies to have been resident for a time at St. Pantaleon. What is clear is that, with three books and three prologues, Theophilus effectively expands and completes Vitruvius, with his ten books and ten prologues, describing the furnishings of sacred architecture in so as to build upon Vitruvius' descriptions of the placement and construction of pagan buildings. The manuscript stages a smooth flow, from ancient to "modern," from architecture to the furnishing of the church, through painting, stained glass, and the sacred arts. This continuity implies an intellectual process of building upon the authority of the ancients, reorganizing received knowledge, adding to it, and Christianizing it. Readers of the Wolfenbüttel manuscript cannot have missed the connection between the two texts, underscored by their visual likeness, and they might have discovered similarities in the goals of the two authors. Both compiled in a single treatise a large body of knowledge on the practice of his art and explained the principles governing it. With abstract principles and concrete techniques aligned, both also sought to draw larger inferences about the nature of his art and its purpose: Vitruvius' text, being dedicated to the emperor Augustus, shows architecture to be part of a political sphere, while Theophilus creates a framework for religious art that is distinctly monastic.

On *Diverse Arts* shows Theophilus' ambition to order large quantities of information, an ambition which was characteristic of the earlier twelfth century and indeed formed the basis for many of the intellectual developments of the period.¹⁵ In his

¹⁵ Literature on the intellectual developments of the twelfth century is extensive. Classic texts include Beryl Smalley, *The Study of the Bible in the Middle Ages*, 3rd ed. (Oxford: Blackwell, 1983); R.W. Southern, *Scholastic Humanism and the Unification of Europe* Vol. 1 (Cambridge, MA: Blackwell, 1995); and Giles Constable, *The Reformation of the Twelfth Century* (Cambridge: Cambridge University Press, 1996); and for a contrary view, which sees the twelfth century as conservative, rather than progressive, C. Stephen Jaeger, *The Envy of Angels: Cathedral Schools and Social Ideals in Medieval Europe, 950-1200* (Philadelphia: University of Pennsylvania Press, 1994) and Jaeger, "Pessimism in the Twelfth-century 'Renaissance'," as ch. 1, note 104. Dodwell presents a brief exposition on Hugh of St. Victor and Rupert of Deutz, Theophilus, and their theological similarities, including the gifts of the Holy Spirit, in his

Didascalicon, Hugh of St. Victor (d. 1141), master at the Augustinian Abbey of St. Victor in Paris, set out to prepare a philosophy of education in the pursuit of spiritual wisdom. He defined the various fields of learning and human activity and categorized the arts as liberal, mechanical, or logical. The mechanical arts, manual activities that served the necessities of life, were of especial interest for Hugh; as a part of understanding of the physical world, and man's activity in it, they aided the pursuit of divine wisdom. By defining the purpose, fields, and steps of learning, and the purpose, fields, and process of craft activity, Hugh thus could show both theoretical and practical knowledge to be in the service of philosophy.¹⁶

This desire to organize knowledge is also encountered the Benedictine sphere of the northern Empire. Rupert of Deutz, a contemporary of both Hugh of St. Victor and Theophilus, exemplifies this ambition, as he wrote systematic exegeses of the bible and liturgy and thereby sought to reveal their underlying order. Rupert spent his early life as a teacher and writer at the abbey of St. Lawrence in Liège, but his writings eventually embroiled him in the eucharistic controversies of his day and forced him to leave Liège for Siegburg in 1113. In 1120, however, he became abbot of the monastery of St. Heribert at Deutz, across the Rhine from Cologne and thus in the vicinity of St. Pantaleon. Rupert's many writings include an extended interpretation of the daily activity of the priest called *De divinis officiis* (*On the Divine Offices*). Here he systematically describes the significance of the material objects used in the mass as well as the specific actions of the clergy. The ring of the priest, for example, is treated in a section on priestly vestments and is said to signify the "many and different gifts" distributed to the

introduction to the text, although his comparison is limited to general themes of the gifts for dating purposes. See Dodwell, *DDA*, as ch. 1, note 5: xx-xxiii.

¹⁶ Hugh of St. Victor, *Didascalicon*, trans. and ed., Jerome Taylor (New York: Columbia, 1961 rpt. 1991).

believers through the Spirit; for Rupert, it therefore “proclaims the entire faith and sensible doctrine of all the church,” on analogy to the marriage of Christ to Ecclesia.¹⁷ Similarly, in his *De trinitate et operationes eius* (*On the Trinity and its Works*), Rupert made analogies between the events of the liturgical year and the work of the Holy Trinity, aligning, for example, each day of Holy Week with a different virtue and a different gift of the Holy Spirit.¹⁸

Analogies discovered between the writings of Theophilus and Rupert of Deutz are particularly suggestive, since the treatises circulated in the same sphere. Rupert was a major intellectual figure of the region of Liège and Cologne, and his ideas seem to have penetrated the artistic context of the region. John van Engen, among others, has noted the similarity between Rupert’s justification of manual labor and Theophilus’ justification of art. Numerous scholars, beginning with Hrabanus Haacke, have found expressions of Rupert’s philosophies in surviving works of art, primarily by invoking the patronage of Wibald, abbot of Stavelot, who was counselor for the Emperors Conrad III and Frederick Barbarossa and a former student of Rupert’s in Liège. Wibald’s activity in the realm of

¹⁷ Rupert of Deutz, *Liber de divinis officiis*, Book I, ch. 15; in CCCM 7, ed. Hrabanus Haacke, 20-21: *De annulo. Annulus digiti domum significat Spiritus sancti quo dives et ornatus ad ecclesiam suam descendit Filius Dei, quodque credentibus in se per multas et differentes donationes secundum beneplacitum suum distribuit, alii dans sermonem sapientiae, alii sermonem scientiae, etc. Harum divisiones gratiarum invisibiles imitatur visibiliter, utpote Christi vicarius, catholicus pontifex, per sacrorum divisiones ordinum, ponens quosdam in ecclesia sacerdotes, alios diaconos, et ceteros sacri altaris officiales. Latius autem significatio praedicti extenditur annuli, quia dum omni Ecclesiae sanam doctrinam et fidem integram praedicat, velut oppignoratam annulo sponsam Christo subarrat. Non ergo ab re in ejus digito gemmatus fulget annulus, per cuius ministerium Christus Dominus tam fulgida distribuit dona sancti Spiritus.*

¹⁸ The gifts of the Holy Spirit are enumerated in Isaiah 11:1-3: “And there shall come forth a rod out of the root of Jesse, and a flower shall rise up out of his root. And the spirit of the Lord shall rest upon him: the spirit of wisdom, and of understanding, the spirit of counsel, and of fortitude, the spirit of knowledge, and of godliness. And he shall be filled with the spirit of the fear of the Lord.” *The Holy Bible*, Douay-Rheims version (Rockford Ill: Tan Books, 1971); Rupert of Deutz, *Liber de divinis officiis*, Book VIII, 5-17; as ch. 2, note 17: 272-299; Rupert of Deutz, *De sancta trinitate et operibus eius*, Book 28, ch. 6 (*In Isaiam II*); CCCM 23, ed. Hrabanus Haacke, 1514-1516. For an overview of the life and work of Rupert of Deutz, see John van Engen, *Rupert of Deutz* (Berkeley: University of California Press, 1983).

art was significant, as he not only commissioned objects for his own abbey but also served as advisor for other artistic projects.¹⁹ Theophilus too seems to have been part of this sphere, and the close analogies between his work and that of Hugh, Rupert, and even Wibald of Stavelot will be drawn out below.

The literary goals that emerge in *On Diverse Arts* become especially clear when contrasted with those found in the technical “recipe books” with which Theophilus is usually associated. Both the *Mappae clavicula*, or, the *Little Key to Techniques*, and the *De artibus et coloribus romanorum*, or *On the arts and colors of the Romans*, by Heraclius, treat subjects similar to *On Diverse Arts*. The *Little Key to Techniques* is the most widely known of these texts, and like *On Diverse Arts*, which it pre-dates by at least a century, it contains instructions for the mixing of pigments, the making of metal alloys, and the dyeing of glass.²⁰ While the most complete version, dating to the twelfth century, is now preserved at the Corning Museum of Glass in New York, chapters from the text have been located in eighty manuscripts, attesting to the wide dissemination of the text

¹⁹ For a study of Rupert of Deutz see van Engen, *Rupert of Deutz*, as ch. 2, note 18; for possible correlations to the ideas of Theophilus specifically, John van Engen, “Theophilus Presbyter and Rupert of Deutz,” as ch. 1, note 12. For art historical studies that have tried to link Rupert of Deutz with surviving art objects see most recently Anna Esmeijer, “The Open Door and the Heavenly Vision: Political and spiritual elements in the programme of decoration of Schwarzhreindorf,” *Polyanthea: essays on art and literature in honor of William Sebastian Heckscher* (The Hague: Van der Heijden, 1993) 43-56; a somewhat outdated study that tries to connect - perhaps too closely - art objects to the writings of Rupert of Deutz is Hrabanus Haacke, *Programme zur bildenden Kunst in den Schriften Ruperts von Deutz* (Siegburg: Respublica-Verlag, 1974).

²⁰ Heraclius, *Farben und Künsten der Römer*, as ch. 1, note 5. For an English translation of the text, see Mary P. Merrifield, ed. *Original treatises*, as ch. 1, note 14: vol. II pp. 166-257. For the *Mappae Clavicula*, see Cyril Smith and John Hawthorne, “*Mappae Clavicula*, A Little Key to the World of Medieval Techniques,” *Transactions of the American Philosophical Society*, vol. 64, part 4 (1974) 3-128. This work includes an essay describing and comparing the extant manuscripts, a historical introduction, translation, and reproductions of extant manuscripts. For an overview of both of these texts, see also von Schlosser, *Die Kunstliteratur*, as ch. 1, note 9: 20-27.

and to the ease with which it was excerpted, quoted, and rearranged, evidence for some that it was not systematically collected, unified, or ordered. (Figure 18).²¹

On the arts and colors of the Romans appears to have been composed in the same vein; like the *Little Key to Techniques* and *On Diverse Arts*, it contains instructions for the mixing of pigments, the coloring of glass, and the gilding of silver; yet an emphasis on chemical constitutions gives the text an alchemical cast.²² The text is thought to have been compiled over a length of time, and parts have been dated from the tenth to the twelfth centuries.²³ The figure of Heraclius is probably mythical, a created persona that gives authority to the text: in the introductory prologue a series of verses praises the author, identifying him as “Eraclius, a very wise man.”²⁴ He writes that his purpose is no less than to revive “the greatness of intellect, for which the Roman people was once so

²¹ The earliest reference to the text is in a ninth-century catalogue of the library at the abbey of Reichenau, where it is described as a book on making gold: *Mappae clavicula de efficiendo auro volumen I*, from the year 821-822. See Rozelle Parker Johnson, “Notes on Some Manuscripts of the Mappae Clavicula,” *Speculum* 10 / 1 (1935) 72-81; 72 n. 2; it may be the ninth-century manuscript now at the library of the Augustine Choristers Foundation, Klosterneuburg (no manuscript number available). A tenth-century copy survives at Sélestat Bibliothèque de la Ville de Sélestat, MS 17. The twelfth-century copy is now at the Corning Museum of Glass, Corning, NY, Phillips MS 3715. See Smith and Hawthorne, “*Mappae clavicula*, a Little Key to the World of Medieval Techniques,” as ch. 2, note 20: 4; and Robert Halleux and Paul Meyvaert, “Les Origines de la *Mappae clavicula*,” *Archives d'histoire doctrinale et littéraire du Moyen Âge* 54 / 62 (1987) 7-58. For surviving manuscripts containing chapters of the text, see Rozelle Parker Johnson, “Some Continental Manuscripts of the *Mappae Clavicula*,” *Speculum* 12 / 1 (1937) 84-103. Contents vary across the manuscripts, and rubrications do not always label it as a separate, unified text; according to the metallurgist Cyril Stanley Smith, the *Mappae clavicula* has no internal structure, and the instructions are often either unintelligible or “technically implausible,” excluding information necessary for a full understanding of the techniques involved. Smith and Hawthorne, “*Mappae clavicula*, a Little Key to the World of Medieval Techniques” as ch. 2, note 20: 14-20, 15.

²² Heraclius, introduction to *De coloribus et artibus romanarum*, in Merrifield, *Original Treatises*, as ch. 1, note 14: I, 182. See also Merrifield’s introduction to her translation, 166-180. For the figure of Heraclius, his mythical origins, and his concern for the “wonders” of the materials, see von Schlosser, *Die Kunstliteratur*, as ch. 1, note 9: 21-22.

²³ Von Schlosser dates the work to the tenth century, but the third book he dates to the “high Middle Ages,” *Die Kunstliteratur*, as ch. 1, note 9: 21. Dodwell disagrees. He cites a fragment of the manuscript which survives from the eleventh century, but claims that the book did not reach “its full development” before the twelfth. Dodwell, *DDA*, as ch. 1, note 5: xiv.

²⁴ For a translation of the introductory prologue, see Merrifield, *Original Treatises*, as ch. 1, note 14: I, 182. The entire translation runs I, 182-257.

eminent, [and which] has faded, and the care of the wise senate has perished.”²⁵ Unlike the anonymous author of the *Mappae clavicula*, the mythical persona of Heraclius in *De coloribus et artibus* creates an aura that lends credibility to the often impractical, alchemical recipes gathered therein.

There are manuscripts that bind Theophilus alongside the *Little Key to Techniques* and *On the Colors and Arts of the Romans*, but these are later copies, and the manner in which they are bound underscores the deliberateness of the juxtaposition of Theophilus and Vitruvius visible in the Wolfenbüttel manuscript. In the thirteenth-century London Harley manuscript, for example, the earliest copy to combine these texts (Figure 3), sixteen chapters from Heraclius are added to *On Diverse Arts*. It is useful to consider how the texts are integrated: the chapters from Heraclius are included in capitula of Book three, and are given no separate introduction. They are followed by a series of unnumbered, unlabelled excerpts, which include five often abbreviated chapters from the *Little Key of Techniques*, some similar extracts from a compilation which, in its 1400 manifestation, is known as the *Liber de coloribus*, or, *The Book on Colors*, and a quotation from Vitruvius’ *On Architecture* and (fols. 114r-119v).²⁶ The last section of the manuscript, a medical text called *De unguentis*, known in English as *On Ointments* (ff. 120r-144v), is written in a different, larger hand, and marked off by a large initial, and begins with a new quire.

The Harley manuscript seems to have come together in a rather haphazard manner. Extracts from Heraclius that were added to *On Diverse Arts*, but these end on

²⁵ Heraclius, introduction to *De Coloribus et Artibus Romanarum*, translated and published in Merrifield, *Original Treatises*, as ch. 1, note 14: I, 182. See also Merrifield’s introduction to her translation, I, 166-180. For the figure of Heraclius, his mythical origins, and his concern for the “wonders” of the materials, see von Schlosser, *Die Kunstliteratur*, as ch. 1, note 9: 21-22.

²⁶ See the manuscript description in the Appendix.

the second folio in a quire (folio 113v). The compiler seems to have added the unnumbered, unlabelled excerpts to fill the rest of the gathering, so as to leave no space unoccupied between the end of the Theophilus, already extended with Heraclian extracts, and the beginning of *On ointments*, which starts with a new quire (folio 120r). Separated codicologically, and in its content, this latter tract is also distinct in its format, written in a larger hand, without signature or numeration in its gatherings. It seems likely, then, that this text was a late add-on, while the unnumbered, unlabelled excerpts were written to fill in a remaining space, but were not originally planned. The loose amalgamation of texts in the Harley manuscript stands in sharp contrast the well designed, purposeful arrangement of Theophilus and Vitruvius in the earlier copy.

The thirteenth-century Egerton manuscript shows significant effort to align Theophilus and Heraclius, but the combination here too is unlike that of Theophilus and Vitruvius in our early manuscript. In the Egerton manuscript five *Mappae Clavicula* recipes are assimilated into Book one of *On Diverse Arts*, and the text of Theophilus is followed by that of Heraclius.²⁷ The manuscript contains two introductions to *On Diverse Arts*. The first introduces it as a Lombard treatise on colors and painting: *Hic incipit tractatus Lumbardicus: Qualiter temperantur colores ad depingendum*. This is followed by a set of hexameters which also appear in Paris 1422, but not in any other manuscript of Theophilus, though they have been discovered in manuscripts of the *Mappae clavicula*.²⁸ A second title next praises Theophilus in a sentence which has been underlined and bracketed by a later reader: *Incipit prefatio primi libri theophile*

²⁷ London, Harley MS 3915 and London, Egerton MS 840a.

²⁸ Dodwell, *DDA*, as ch. 1, note 5: lxvii.

*admirabilis et ductori magistri de omni scientia artis pingendi.*²⁹ Heraclius' text is titled as well, with another panegyric: *Incipit liber Eraclii sapientissimus mixtura et coloribus de artibus romanorum.*³⁰

What seems to be a neat grouping of Theophilus and Heraclius in the current Egerton manuscript is in fact the result of the nineteenth century-separation of the manuscript's parts.³¹ The thirteenth-century version of the manuscript also included a text on astronomy, so the volume would have contained Theophilus, Heraclius, and *De constructione et usu sphaerae et astrolabii* following one upon the other. Just as the quires of the Harley manuscript suggest a more complex history, when the Egerton manuscript is considered in its original form, the logic for the grouping of Theophilus and Heraclius likewise becomes more complex, raising issues of genre that will be addressed in chapter five.

Unity and Structure: The Hierarchy of Objects and Materials

The Wolfenbüttel manuscript presents the text of *On Diverse Arts* as a distinct, complete entity. One of the most complete copies of the text, it contains no trace of the *Little key to techniques* or *On the colors and arts of the Romans*.³² It begins on a new page, in a new

²⁹ Fol. 6r.

³⁰ Fol. 16v.

³¹ Andrew Watson, "A St. Augustine's Abbey, Canterbury, Manuscript Reconstructed: Trinity College, Cambridge, MS R.14.30 and British Library MSS Egerton 823 and 840A," *Transactions of the Cambridge Bibliographical Society*, 6 (1977 for 1972-6), 211-17; reprinted in *Medieval Manuscripts in Post-medieval England* (Burlington, VT: Ashgate/Variorum, 2004).

³² The Wolfenbüttel manuscript is only rivalled by the manuscript at Vienna, MS 2527, which comprises only *On Diverse Arts*, binding it alone, and the Harley manuscript, which contains additional chapters but omits the first prologue of the text. The Harley manuscript contains a chapter on ink (*de incausto*) at the end of book I (ch. xxxviii, Dodwell, *DDA*, as ch. 1, note 5: 34-35) found in the Leipzig and Cambridge manuscripts, and an additional sixteen chapters at the end of Book III, six of which are also found in the Cambridge manuscript (lxxxix, xci-xcv, *de solidatura ferri, de sculptura ossis, de rubricando osse*, idem: 161-171). The Harley manuscript does not contain the first prologue, however; for a discussion of the

gathering; the facing verso, containing the final words of Vitruvius' text, is left with two-thirds of a column blank; the explicit, marking the end of the ancient text, is a prayer: *Vitruvii liber x explicit feliciter amen* (Figure 1b).³³ The Vienna text, by contrast, is bound alone, and dirt on the first recto and last verso of the manuscript show that it was probably unbound for a period of time (Figure 2). The rubrics, titles, and mise-en-page of both manuscripts thus coalesce to present *On Diverse Arts* as a discrete unit.

The overarching structure of Theophilus' text is intimated through the division of the work into books in the manner of Vitruvius, and this becomes even more apparent when we look afresh at the subject matter addressed by each. Often referred to as the *Book of Painting*, the *Book of Stained Glass*, and the *Book of Metalwork*, these titles are the product of modern editions; they do not appear in manuscripts until the seventeenth century, as is clear from the Vienna manuscript's table of contents.³⁴ In the few cases where manuscripts do give a label to the book, they are descriptive and usually attached only to excerpts; such is the case of the Egerton manuscript, with its description of the text as a treatise on how to combine colors for painting.³⁵ Most often, books are referred

Harley and Cambridge manuscripts, particularly in relation to the Vienna and Wolfenbüttel manuscripts, see idem: lxiii-lxviii

³³ Fol. 85v.

³⁴ The only manuscripts to contain titles for the three books are two seventeenth-century manuscripts copied after the Wolfenbüttel manuscript, with the name of Roger taken from the Vienna manuscript; one is now Vienna ÖNB 11236 and the other is now Venice, Biblioteca Marciana, MS lat. VI, 3597, unfoliated title page: I. *de temperamentis colorum*, II. *de arte vitriana*, III. *De arte fusili*." The title page found in Vienna ÖNB MS 11236, is identical to that in the Venice manuscript: I. *de tempermentis colorum*. II. *de arte vitriana*, III. *de arte fusili*, fol. 1r. Smith and Hawthorne's use of titles for each of the books is probably the most misleading; in their translation, *On Divers Arts*, each book is given a title page and a title: "The Art of the Painter," "The Art of the Worker in Glass," "The Art of the Metalworker." See Smith and Hawthorne, *On Divers Arts*, as ch. 1 note 8: 10, 45, 75. In *A Critical Essay on Oil Painting*, Rudolph Raspe describes the books according to their content, but does not title them separately; see Raspe, as ch. 1 note 25: 45-46. Dodwell refers to them as the first, second and third books. Smith and Hawthorne's use of titles for each of the books is probably the most misleading; in their translation each book is given a title page and a title: "The Art of the Painter," "The Art of the Worker in Glass," and "The Art of the Metalworker." See Smith and Hawthorne, *On Divers Arts*, as ch. 1, note 8: 10, 45, 75.

³⁵ Egerton 840a, fol. 6r: *Hic incipit tractatus Lumbardicus: Qualiter temperantur colores ad*

to simply by number in the manuscripts, even when individual chapter titles are reproduced in prefatory tables of contents.³⁶ While convenient, the categories imposed by later editors color the way the text has been understood. As part of his argument that the text is fragmentary and incomplete, Lynn White sets Theophilus against himself, as he observes: “The first preface provides, at its close, a prospectus for the entire work which was never fulfilled; at the end of his third book, a weary Theophilus terminates with scanty treatment of ivory carving and gem polishing, and never expounds to us, as promised, the subtleties of craftsmanship in wood and stone.”³⁷ Theophilus, while he does not treat the carving of stone sculpture, does in his third book treat the carving and polishing of gemstones, and he repeatedly introduces the arts of working wood, in as much as wood is described when used in the creation of precious objects: book covers, frames for shrines, the building of an organ.³⁸

The breadth of media and techniques addressed in Theophilus’ third book is the climax of the overarching structure. The multi-media approach of the book reflects the “art of the metalworker,” for certainly the making of precious objects was one that involved multiple media; accordingly, Theophilus’ distinctions are made according to

depindendum. The thirteenth-century Cambridge manuscript is similar, with a rubric introducing the prologue that also implies awareness that the text is an excerpt: *Prologus primum liber Theophili monachi et presbyteri de diversis artibus in primis de coloribus*. Cambridge, University Library MS ee 6 39, fol. 1r. (Each text in this manuscript is foliated separately, Theophilus begins at quire xvii.)

³⁶ For example, Wolfenbüttel Gud. Lat. 2^o 69 contains titles and numbers for each chapter in the tables of contents preceding each book, fols. 86v, 93r, 98v. The manuscript refers to each book by number in the prologue incipit, and then introduces the capitula, listed by chapter number and title. Book one carries no incipit, and begins rubrications with the first capitula: *explicit prologus, incipiunt capitula*, f. 86v; book two begins with: *explicit liber primus, incipit prologus libri ii*, fol. 92v, and *explicit prologus ii, incipiunt capitula*, fol. 93r; book three follows the same pattern: *explicit liber ii, incipit prologus libri iii*, f. 97v, and *explicit prologus iii, incipiunt capitula*, fol. 98v.

³⁷ White, “Theophilus Redivivus,” as ch. 1, note 13: 229.

³⁸ Theophilus, treats ivory carving in Book III ch. 93: Dodwell, *DDA*, as ch. 1, note 5: 166-167; on gems, book III, ch. 95-96: idem, 168-171; and their settings, Book III ch. 53: idem, 104-105; on the organ, Book III, ch. 81-84: idem, 142-150,

these larger categories. Thus, more significantly, the book can be seen to be oriented more generally toward the fashioning of the sacred arts. If given this rubric, if referred to as the *Book of Sacred Arts*, the perceived disorderliness of techniques described in Book three disappears. While Reudenbach has suggested that the book clusters around objects to be produced,³⁹ I suggest the tendency for clustering points to something far more complex: when seen in terms of works produced rather than media, a progression from the first to the third book becomes apparent.

On Diverse Arts is hierarchically structured, and sets out a progression in which techniques increase in complexity while the images and objects they produce serve increasingly sacred functions. In his treatise Theophilus deftly moves from the arts of two-dimensional image-making, through the crafting of luminous glass, through and up to the construction of sacred objects in precious materials. This trajectory is in fact evident in the specific contents of the chapters. Theophilus writes a work based on notions of progression and ascent. This becomes especially clear when the text is considered in relation to contemporary comments on art making and set in dialogue with the kinds of objects Theophilus describes.

Theophilus, most significantly, opens his discussion of painting with a description of the colors used to create images of man. He begins with pigments, showing how the artist builds up a figure from the simple mixture of flake-white and vermilion, appropriate for rendering nude flesh, proceeding to the addition of grays for shadows, to the mixture of black and yellow ochre used for the hair of young men.⁴⁰ Precisely this technique of layering paint is evident in a fragment of a wall painting from the upper gallery of St.

³⁹ Bruno Reudenbach, "Praxisorientierung und Theologie" as ch. 1, note 12: 200.

⁴⁰ Book one, ch. i, "The Mixing of Colours for Nude Bodies," ch. iii, "The First Shadow Color for Flesh," ch. x, "The Hair of Boys, Youths, and Young Men": Dodwell, *DDA*, as ch. 1, note 5: 5-6, 8.

Gereon, in Cologne, from the last quarter of the eleventh century (Figure 14). The fragment depicts an unidentifiable prophet, upon whose shoulders another figure, probably an evangelist, is seated, a visual trope for showing the relation between the New and Old Testaments.⁴¹ The flesh of the prophet is painted just as Theophilus describes, a yellowish color covers the area of the skin, and layered on top of this are a pink blush on the cheeks, white lines for highlights on the brow, and dark gray beneath the chin and under the eyebrows. Theophilus accurately describes a technique, but at the same time he selects an example that evokes, at the very beginning of his text, the creation of man.

Theophilus focuses first on the step-by-step rendering of the figure of man. He does not mention binding agents or surfaces on which the painting might appear until much later, in chapter fifteen; only then, after the entire figure has been described, from flesh to hair to drapery, does he move on to mention ceilings and walls.⁴² Theophilus emphasises the figurative aspect of painting. By devoting the first half of his book to techniques like those for rendering of bodies, blushes, hair, and the pupils of the eye, and the second half to techniques for preparing surfaces for images, he presents a concept of painting based not solely on the mixture of pigment, but instead on the creation of mimetic art.

If we draw on Gregory the Great, whose sixth-century defense of religious imagery was so much cited throughout the Middle Ages, we see that painting on the walls of churches was regarded as an important didactic tool, as it could rekindle memory of

⁴¹ See Christoph Stiegemann and Matthias Wemhoff, *Canossa 1077, Erschütterung der Welt: Geschichte, Kunst und Kultur am Aufgang der Romanik*, exh. cat., 2 vols. (Munich: Hirmer Verlag, 2006): II, cat. no. 495.

⁴² Book one, ch. xiv, "Mixing Colours for Draperies on a Panelled Ceiling," ch. xv, "Mixing Colours for Draperies in Wall-Paintings": Dodwell, *DDA*, as ch. 1, note 5: 10-13.

sacred stories and confirm faith.⁴³ From this perspective, Theophilus' emphasis on the figure, on the mimetic aspect of painting, echoes this philosophy. It is with the figure that he begins and with wall painting that he continues. Painting in manuscripts, such as that which Roger of Helmarshausen might have done at Stavelot (Figure 10), is not mentioned until the end of the book, in chapter twenty-eight. The book advances from painting on ceilings and walls, to painting on altarpieces and on furniture, to painting with oil, all before painting in books is mentioned. Theophilus seems, then, to be in accord with Gregory, as he focuses on the crafting of figural images which are visible and comprehensible, to a larger audience.⁴⁴

Unlike the first book, with its emphasis on the mimetic arts, however, the second book gives little instruction in image-making. Theophilus instead addresses two kinds of glass techniques: the making of sheet glass, for windows, and blown glass, for vessels. Stained glass for windows was particularly valued in the Middle Ages because of its manipulation of light. Light penetrated without fracturing the translucent panels, a property that suggested a semblance to the divine.⁴⁵ The glass windows in the chevet of the Abbey of St. Denis are celebrated as an early example of the technique; Abbot Suger, in his account of the restoration of the Abbey in 1140s, provides a contemporary analysis of the nature and benefits of the medium. Referring particularly to the "anagogical window" in the chapel of St. Peregrinus (Figures 19, 19a), Suger describes the allegorical figures painted in the panels – including those on the bottom panel depicting

⁴³ Celia Chazelle, "Pictures, Books and the Illiterate: Pope Gregory I's Letter to Serenus of Marseilles," *Word & Image* 5 (1989) 227-251.

⁴⁴ There are thirty-eight chapters in Book one; the section on painting in books are ch. xxviii-xxxiii: Dodwell, *DDA*, as ch. 1 note 5: 25-31. These six chapters on book painting are followed only by five chapters which elaborate on colors mentioned in the beginning of the book: vermilion, salt green, Spanish green, flake-white and red lead, and lastly, ink: ch. xxxiv-xxxviii: idem, 31- 34.

⁴⁵ Madeline Caviness, "Stained Glass," *Dictionary of the Middle Ages* 5, ed. Joseph Strayer (New York: Scribner, 1985) 548-554, esp. 548-549.

Christbetween Ecclesia and Synagoga. For Suger, it is the quality of the medium that succeeds in “urging us onward from the material to the immaterial.”⁴⁶ Rather than creating images through manipulation of pigment, the artist of glass windows creates images by changing the color of light. As Theophilus writes in the prologue, “Since this kind of painting cannot be translucent, I have, like a diligent seeker, taken particular pains to discover by what ingenious techniques a building may be embellished with a variety of colours, without excluding the light of day and the rays of the sun.”⁴⁷ The art described in the second book builds upon what was set out in the first book: images made from opaque materials give way to images made visible through divine light, creating the kind of glowing image we see especially well in a fragment showing the head of Christ, made in the late eleventh or early twelfth century for the abbey of Wissembourg and now at the Musée de l’œuvre Notre-Dame, Strasbourg (Figure 20).⁴⁸

With much of the book devoted to glass windows, the chapters on vessels which occur in the middle of the book, seem at first glance to be a digression.⁴⁹ Glass vessels, however, were not less emblematic of the qualities of the medium. Isidore of Seville, in his much prized sixth-century encyclopedia, the *Etymologies*, expanded on Pliny’s

⁴⁶ *Una quarum de materialibus ad immaterialia exitans*; Abbot Suger, *De administratione*, trans. and ed. Erwin Panofsky, *Abbot Suger on the Abbey Church of St-Denis and its Art Treasures*, 2nd ed. (Princeton, NJ: Princeton University Press, 1946, rpt. 1979) 74-75.

⁴⁷ Book II, prologue; Dodwell, *DDA*, as ch. 1, note 5: 37.

⁴⁸ See Victor Beyer, *Les Vitraux des Musées de Strasbourg* (Strasbourg: Musées des Strasbourg, 1978) cat. no. 1, 28.

⁴⁹ These are chapters x, “How Glass Vessels are Made,” xi, “Flasks with a Long Neck,” xii, “The Various Colours of Opaque Glass,” xiii, “Glass Goblets which the Greeks Embellish with Gold and Silver,” xiv, “The Same,” xv, “The Greek Glass which Decorates Mosaic Work,” and xvi, “Earthenware Vessels Glazed in Various Colours”: Dodwell, *DDA*, as ch. 1, note 5: 43-47. Four lost chapters, listed in tables of contents of the eldest copies of the book- the Vienna, Wolfenbüttel, Harley and Leipzig manuscripts – would have been here, between chapters x and xi. They address the coloring of glass from copper, lead and salt: *De coloribus qui fiunt ex cupro et plumbo et sale, de viridi vitro, de vitro saphireo, de vitro quod vocatur gallien* (The Colors which are Made from Copper and Lead and Salt; The Green Glass; The Blue Glass, The Glass which is Called Gaulian). See idem, xvi-xviii, and 44; also Wolfenbüttel Gud. Lat. 2° 69 fol. 92v, Vienna ÖNB 2527, fol. 33r; London, British Library Harley MS 3915 fol. 21r, and Leipzig University Library 1157, fol. 20r.

anecdote about Tiberius that we saw above; but rather than using to explain the origins of glass, and Tiberius' wish to defeat competition from glass-workers, Isidore uses it to demonstrate the quality and value of the medium:

It is related that, under Tiberius Caesar, an artificer invented a tempering for glass, which rendered it tender and ductile (*flexibile et ductile*). When admitted to Caesar he held out the jar to him, who, angry, threw it upon the pavement, where it bent like a brass vase. The artificer raised the jar, thrust a small hammer into the cavity, and mended the jar. This done, Caesar asked the artificer whether any other person knew this tempering for glass, and when he denied, with an oath, that any other knew of it, Caesar ordered him to be decapitated; lest, this known, gold and silver might become as clay, and the value of all metals be debased. For, in truth, did glass vessels not break they would be better than gold or silver.⁵⁰

All the more miraculous because it was made simply from the sand of the earth, the glass vessel in the anecdote highlights the preciousness of the medium and its utility, the curious tension between strength and fragility as it takes on form when cooled.

Chapters in this section of Book two that address the varieties of opaque glass may also seem discordant, but here too Theophilus' point seems to be that glass vessels, even opaque ones, could be used as a source of material for other works, whether enamels, mosaic, or window glass. He himself provides the key to his logic in chapter xii, the first chapter on opaque glass: "In the ancient buildings of pagans, various kinds of

⁵⁰ Pliny, *The Historie of the World*, as ch. 1, note 53: book 36, ch. 26; Isidore of Seville, *Etymologies*, PL 82, col. 583c. Here translated by Stephen A. Barney: *The Etymologies of Isidore of Seville*, trans. Stephen A. Barney, et al., with collaboration of Muriel Hall (Cambridge: Cambridge University Press, 2006): "Glass," Book 16, ch. 16, 328. Heraclius also quotes the story, which may suggest a relation between this portion of Theophilus and Heraclius' text. This may also throw light on the fact that the chapters missing from Book II in Theophilus (see ch. 2, note 49 above) are subjects addressed in Heraclius, as Merrifield and Dodwell have noted. See Raspe's edition of Heraclius, in *A Critical Essay on Oil Painting*, as ch. 1 note 25: 3, 111; For the link between the missing chapters of Theophilus and Heraclius' *On the Colors and Arts of the Romans*, see Merrifield, *Original Treatises*, as ch. 1, note 14: I, 178, n. 3; and Dodwell, *DDA*, as ch. 1, note 5: xvi-xviii.

glass are found in the mosaic work – white, black, green, yellow, blue, red, and purple. They are not transparent but opaque like marble, and are like little square stones. From these, enamels are made in gold, silver and copper, of which we shall speak fully in their place.” He continues, expanding on the significance of these glasses: “One also comes across various small vessels of the same colours, which the French – who are most skilled in this work – collect. The blue, they melt in their kilns, adding to it a little clear and white glass, and make from it precious sheets of blue glass, which are very useful for windows. The purple and the green they also make use of in a similar way.”⁵¹

The chapters on vessels and opaque glass thus confirm Theophilus’ larger interest in the manipulation and coloring of the medium, for they feed back into the making of windows, the construction and ornamentation of which he continues at chapter xvii.⁵² For Theophilus, glass is a medium that changes the color of light, just as pigments change the colors of a wall. The close relation between painting and early glass work is well demonstrated in the fragment from Strasbourg (Figure 20), one of the earliest surviving fragments of a figural image in glass. Like the painting of the prophet in St. Gereon (Figure 14), the face of Christ at Strasbourg was created from glass tinted a flesh color; it was then painted with highlights and shadows, with varying levels of opacity, analogous to the whites and grays of the St. Gereon prophet. The construction of the image, then, was similar; the major difference was seen to lie in the properties of the medium of light.

In his third book, Theophilus treats the making of objects of gold, silver, and precious materials – works like the altar of Henry of Werl (Figure 4), probably made between 1107 and 1122 and now in the Diözesanmuseum Paderborn, or the Enger cross

⁵¹ Book II, xii, “The Various Colours of Opaque Glass;” Dodwell *DDA*, as ch. 1, note 5: 44-45.

⁵² Book II, xvii, “How to Construct Windows;” Dodwell, *DDA*, as ch. 1, note 5: 47.

(Figures 6, 6a), of about the same time, and now in the Kunstgewerbemuseum, Berlin. In this, the lengthiest and most complex book of the three, the broad sequence runs like this: making the furnace; making the iron chisels and tools; mining and refining gold, silver, copper, and iron; and creating objects through the processs of hammering, repoussé, casting, carving.⁵³ The objects described are liturgical objects, made of precious metals: chalices are made of silver and gold, censers of bronze and silver, and reliquaries, bookcovers, crosses, are embellished with all these materials. Liturgical objects had not been addressed until this point in the text: Theophilus gave no purpose for the glass vessels he described in Book two, saying only, “To make glass vessels, prepare the glass in the above way...” and “If you want to make flasks with a long neck proceed in this way.”⁵⁴ In Book three, however, the one vessel he describes is a liturgical one, a silver *ampulla*.⁵⁵

Materials and the objects made from them thus fall into a hierarchy. Theophilus describes two metal vessels in Book three: one of silver and one of tin. Both are called *ampulla*. Dodwell translates the former as a cruet, and the latter more informally as a jug, reasoning that “it is hardly likely that he would make a cruet out of tin.”⁵⁶ The difference is more than a likelihood, however. I argue that Theophilus makes a clear distinction between the two: in the Latin, the tin jug (*de ampullis stagneis*) is given in the plural, as a

⁵³ Book III, ch. i, “The Construction of the Workshop,” ch. ii, “Seating Accomodation for the Workmen,” ch. iii, “The Work Furnace;” Dodwell, *DDA*, as ch. 1, note 5: 64-66; ch. x, “Files Hollowed Underneath,” ch. xi, “Chisels;” idem, 70; ch. xiii, “The Refining of Silver;” idem, 74-5; ch. xxv. “Casting Silver;” idem, 76; ch. xxvi, “Making the Smaller Chalice;” idem, 76-79; ch. xxxiii, “Refining Gold;” idem, 84-85; ch. xlix, “Sand Gold;” idem, 98; ch. l, “The Gold Chalice;” idem, 98-99; ch. lx, “The Repoussé Censer;” idem, 111-12; ch. lxi, “The Cast Censer;” idem, 113-119; ch. lxiii, “Copper;” idem, 120-121; ch. xci, “Iron;” idem, 162-164; ch. xciii, “Carving Bone;” idem, 166-167.

⁵⁴ Book II, ch. x, “How Glass Vessels are Made;” Dodwell, *DDA*, as ch. 1, note 5: 43, and ch. xi, “Flasks with a Long Neck;” idem, 44.

⁵⁵ Book III, ch. lviii, “The Cruet” (*de ampulla*); Dodwell, *DDA*, as ch. 1, note 5, 109.

⁵⁶ Book III, ch. lviii, “The Cruet” (*de ampulla*); Dodwell, *DDA*, as ch. 1, note 5, 109; ch. lxxxviii, “Tin Jugs” (*de ampullis stagneis*); idem, 160 and 160, note 1.

general type of object, without specific purpose, while the silver ampulla (*de ampulla*) is described distinctly, in the singular, as “a cruet for pouring out the wine [of the eucharist].”⁵⁷ By defining and ordering objects according to the variables of material and function, distinguishing between the specific and the generic, Theophilus articulates a system of logic and material hierarchy. Similarly, while Theophilus describes in detail the chalice made of gold, he mentions lesser metals such as iron not in the context of liturgical objects but as the substance out of which such pedestrian items as files, rasps, and horse trappings are made.⁵⁸

Twelfth-century debates on wealth in the monastery revolved around the propriety of filling churches with liturgical objects made from precious metals. It is often pointed out that the emphasis on working precious materials to make liturgical objects in the third book of *On Diverse Arts* can be regarded a defense of such practices.⁵⁹ For Theophilus, the high status of liturgical objects is due to their usefulness: he refers to them as objects “without which the divine mysteries and service of the Offices cannot continue.”⁶⁰ Indeed these are the objects that are central to the iconography of the celebration of the mass: the image of Henry of Werl on the altar of Henry of Werl shows the bishop swinging a censer in front of a small altar and a chalice (Figure 21). Similarly the chalice is also the attribute of the Old Testament type of Christian priests, Melchisedek, who is, for example, depicted raising a chalice with covered hands on the Stavelot portable altar, made at the abbey of Stavelot, near Liège, between 1150 and 1160 (Figure 22).

⁵⁷ Dodwell translates the silver vessel as a cruet, and the tin vessel as a jug, reasoning that “it is hardly likely that [one] would make a cruet out of tin.” Book III, ch. lviii, “The Cruet” (*de ampulla*); Dodwell, *DDA*, as ch. 1, note 5, 109; ch. lxxxviii, “Tin Jugs” (*de ampullis stagnis*); idem, 160 and 160, note 1.

⁵⁸ Book III, ch. lx, “The Gold Chalice;” Dodwell, *DDA*, as ch. 1, note 5: 98-99, ch. xci, “Iron;” idem, 162-164; and ch. x, “Files Hollowed out Underneath;” ch. xi, “Chisels,” and ch. xii, “Rasps;” idem, 69-70.

⁵⁹ See especially Conrad Rudolph, *The “Things of Greater Importance,” Bernard of Clairvaux’s Apologia and the Medieval Attitude Toward Art* (Philadelphia: University of Pennsylvania Press, 1990).

⁶⁰ Theophilus, Prologue to Book III; Dodwell, *DDA*, as ch. 1, note 5: 64.

In contrast, one might say, painting is decorative. Images placed on a surface – a wall or a panel or a book – might well encourage or focus an act of communal or private worship, but they were not deemed essential to it: the paintings in the apse of St. Peter and Paul at Reichenau-Niederzell, executed by the so-called Reichenau school in the 1120s, follow the architectural structure, even mimic it, with painted arches framing the apostles; yet the mural is not structurally indispensable or essential for the liturgical ceremonial (Figure 23). Stained glass, unlike painting, is an integral part of the fabric of a church: it serves a structural function, and it is also decorative, and hence we praise the chevet of the abbey church of Saint Denis, where walls, famously, “become” windows (Figure 19). In this sense glass occupies a conceptual place between painting and the liturgical objects. Windows serve to let light into the sacred space of the church as well as provide devotion-enhancing beauty. Suger famously writes of his abbey’s “elegant and praiseworthy extension, [in the form of] a string of chapels, by virtue of which the whole [church] would shine with the wonderful and uninterrupted light of most luminous windows, pervading the interior beauty.”⁶¹ Thus in the basic structure of Theophilus’ tract, it is possible to follow a progression from opaque, mimetic, decorative painting, to the more sacred “painting” with light that sacralizes the interior of the church, to the highest art: the crafting of precious metals, luminous and reflective of light, that are used for worship and the mass. By recognizing in this trajectory the guiding framework of the text, we become sensitive to other hierarchies and progressive patterns embedded in the prologues and instructions.

⁶¹ Abbot Suger, *De consecratione*, trans. Panofsky, *Abbot Suger*, as ch. 2, note 46: 100-101.

The Artisan's Progress

In an oft-quoted passage from the third prologue, Theophilus shows how the seven gifts of the Holy Spirit, as enumerated in Isaiah 11, may be visited upon the artisan. It is here that Theophilus summarizes his project, and thus worth quoting in full:

...I will clearly demonstrate that whatever you can learn, understand or devise is ministered to you by the grace of the seven-fold spirit.

Through the spirit of wisdom, you know that all created things proceed from God, and without Him nothing is.

Through the spirit of understanding, you have received the capacity for skill- the order, variety and measure with which to pursue your varied work.

Through the spirit of counsel, you do not bury your talent given you by God, but, by openly working and teaching in all humility, you display it faithfully to those wishing to understand.

Through the spirit of fortitude, you drive away all the torpor of sloth, and whatever you assay with energy you bring with full vigour to completion.

Through the spirit of knowledge accorded you, you are, in the abundance of your heart, the master of your skill and, with the confidence of a full mind, employ that abundance for the public good.

Through the spirit of godliness, you regulate with pious care the nature, the purpose, the time, measure and method of the work and the amount of the reward, lest the vice of avarice or cupidity steal in.

Through the spirit of the fear of the Lord, you remember that you can do nothing of yourself, you reflect that you have or intend nothing, unless accorded by God, but by believing, by acknowledging and rendering thanks, you ascribe to the divine compassion whatever you know, or are, or are able to be.⁶²

These words, manuscript evidence suggests, were at times taken to heart. In the early thirteenth-century Harley manuscript, the passage received particular attention on the part of a scribe and rubricator. An inscription in the margins reads: "Note that the seven spirit

⁶² Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1, note 5: 62-63.

forms are joined with seven skills of work.”⁶³ Each gift has even been highlighted: the initial “P” for the word *per* that begins each phrase, as in *per spiritum sapientiae... or per spiritum intellectus...* is given extra space and written in red. This is the only such occurrence within the text. Initials emphasized with red otherwise only appear at the start of each prologue and chapter, and in the lists of chapters. The passage also caught the attention of a later medieval reader, who drew a hand in the right margin, pointing to the line that reads: “Through the spirit of wisdom, you know that all created things proceed from God.”⁶⁴

The spirit of wisdom is the first of the seven virtues named by Isaiah in a passage describing the Messiah that became known as the seven gifts of the Holy Spirit: “And there shall come forth a rod out of the root of Jesse, and a flower shall rise up out of his root. And the spirit of the Lord shall rest upon him: the spirit of wisdom, and of understanding, the spirit of counsel, and of fortitude, the spirit of knowledge, and of godliness. And he shall be filled with the spirit of the fear of the Lord.”⁶⁵ Many scholars have discussed Theophilus’ recitation of the gifts in the third prologue, and it has been well argued that, with recourse to this passage, Theophilus seeks to justify the production of the luxury arts.⁶⁶ Through the prologues, Theophilus argues that man, made in God’s image, is rational, and therefore has the potential to acquire “arts and skills” (*artes*

⁶³ London, British Library, Harley MS 3915, fol. 36r: *Nota conformationem septem spiritum cum septem operum artibus.*

⁶⁴ London, British Library, Harley MS 3915, fol. 36r. The Latin phrase is: *Per spiritum sapientiae cognoscis a deo cuncta creata procedere*, on lines 3 and 4.

⁶⁵ Isaiah 11:1-3.

⁶⁶ Hugh McCague, “Le don des métiers: les rencontres avec la théologie dans le *De diversis artibus* du prêtre Théophile,” *Discours et savoirs: encyclopédies médiévales*, Cahiers Diderot 10, ed. Bernard Baillaud, Jérôme de Gramont, Denis Hüe (Rennes: Presses Universitaires de Rennes, 1998) 47-66; John van Engen, “Theophilus Presbyter and Rupert of Deutz,” as ch. 1, note 12; Bruno Reudenbach, “Werkkünste und Künstlerkonzept,” as ch. 1, note 12; Pierre-Alain Mariaux, “La ‘double’ formation de l’artiste,” as ch. 1, note 15.

ingeniique).⁶⁷ The labor required by such arts and skills staves off vice and encourages virtue, while the fruits of such labor are useful for the service of God. Lastly, because such labor is rational, because it is what makes man like unto God, because it promotes virtue, the artist does not work alone, but is guided by the Holy Spirit. The embellishment of a church, then, is sanctioned by the Holy Spirit and justified as a virtuous activity; it is the practice of skill for the sake of God.

While many scholars have noted Theophilus' justification of luxury arts, I make the further claim that it is the unfolding of the argument – the manner in which the material is arranged to point to process – that holds the greatest significance. While the virtues are only explicitly defined in the last prologue, they are present throughout. Indeed the sequence of seven virtues serves to structure the text and to create a narrative of ascent that binds together the prologues and instructions. Each prologue thematizes a set of virtues: the first is concerned with fear of the lord, godliness, and knowledge; the second with fortitude, counsel, and understanding, and the last culminates with wisdom. The virtues in the prologues progress in parallel to the instructions, as the artisan learns to make more and more complicated and sacred objects.

Theophilus was by no means alone in elaborating on the theme of the gifts of the Holy Spirit. In the twelfth century particularly, the gifts were used to describe the ascension of the spirit, from fear of the Lord to the highest wisdom. The correspondence derived from St. Augustine, as developed in his exegesis of the opening passages of the Sermon on the Mount in the Book of Matthew.⁶⁸ The sermon describes eight beatitudes, seen to make up the steps of the Christian life. Each describes the heavenly reward

⁶⁷ Prologue I, Dodwell, 1. The idea of skill and labor will be discussed further in chapter four.

⁶⁸ Matthew 5-7. St. Augustine, *The Lord's Sermon on the Mount*, trans. John J. Jepson (Westminster, MD: Newman Press, 1948).

promised to classes of virtuous individuals: the poor in spirit, the meek, those who mourn, those who hunger and thirst for justice, the merciful, the pure in heart, the peacemakers, and those who are persecuted for righteousness' sake.⁶⁹ These Augustine aligns with the seven gifts of the Holy Spirit named by Isaiah⁷⁰: humility with the poor in spirit, piety with the meek, knowledge with those who mourn, fortitude with those who seek righteousness, counsel with the merciful, intelligence with the pure in heart, and wisdom with the peacemakers.

To align the beatitudes and gifts, Augustine reverses the order of gifts as given in Isaiah. He thus creates an ascending order of virtue that begins with the humility of the poor in spirit and leads to the wisdom of the peacemakers, and he justifies the reversal with a passage from Ecclesiasticus stating that “the fear of the lord is the beginning of wisdom.”⁷¹ Augustine’s analysis defines a path for the ascent of the soul to God through the learning of virtue:

Hence also the sevenfold operation of the Holy Ghost, of which Isaiah speaks, seems to me to correspond to these stages and sentences. But there is a difference of order: for there the enumeration begins with the more excellent, but here with the inferior. For there it begins with wisdom, and closes with the fear of God: but “the fear of the Lord is the beginning of wisdom.” And therefore, if we reckon as it were in a gradually ascending series, there the fear of God

⁶⁹ Matthew 5:1-11. The Beatitudes are Matthew 5:1-10: “And seeing the multitudes, he went up into a mountain, and when he was set down, his disciples came unto him. And opening his mouth, he taught them, saying: Blessed are the poor in spirit: for theirs is the kingdom of heaven. Blessed are the meek: for they shall possess the land. Blessed are they that mourn: for they shall be comforted. Blessed are they that hunger and thirst after justice: for they shall have their fill. Blessed are the merciful: for they shall obtain mercy. Blessed are the clean of heart: for they shall see God. Blessed are the peacemakers: for they shall be called children of God. Blessed are they that suffer persecution for justice' sake: for theirs is the kingdom of heaven.”

⁷⁰ “And the spirit of the Lord shall rest upon him: the spirit of wisdom, and of understanding, the spirit of counsel, and of fortitude, the spirit of knowledge, and of Godliness. And he shall be filled with the spirit of the fear of the Lord.” Isaiah 11:2-3.

⁷¹ Ecclesiasticus 1:16.

is first, piety second, knowledge third, fortitude fourth, counsel fifth, understanding sixth, wisdom seventh.⁷²

The seven beatitudes, aligned with the seven gifts of the Holy Spirit in ascending order, are, for Augustine, “the things which bring perfection.” This perfection, Augustine explains, is the eighth beatitude, those who are persecuted for the sake of justice. While wisdom is the culmination of the virtues, perfection completes the process, returning to the beginning:

The eighth, as it were, returns to the starting-point, because it shows and commends what is complete and perfect: therefore in the first and in the eighth the kingdom of heaven is named, “Blessed are the poor in spirit, for theirs is the kingdom of heaven;” and, “Blessed are they which are persecuted for righteousness’ sake, for theirs is the kingdom of heaven:” as it is now said, “Who shall separate us from the love of Christ? Shall tribulation, or distress, or persecution, or famine, or nakedness, or peril, or sword?” Seven in number, therefore, are the things which bring perfection: for the eighth brings into light and shows what is perfect, so that starting, as it were, from the beginning again, the others also are perfected by means of these stages.

Perfection is retrospective; the “peacemakers” possessing the seventh gift reside in the peace of the Lord, one step closer to him, and their next step is to return to the beginning, to bring others along with them, “starting, as it were, from the beginning again, [so that] the others also are perfected by means of these stages.” Augustine’s analysis, then, demonstrates how the beatitudes correspond to “the sevenfold operation of the Holy Spirit spoken of by Isaiah.”⁷³ In doing so it creates a model for spiritual ascent and for education as well.

⁷² Augustine, *Sermon on the Mount*, Book I, 3.10; trans. Jepson, as ch. 2, note 68.

⁷³ Augustine, *Sermon on the Mount*, Book I, 3.10; trans. Jepson, as ch. 2, note 68.

Theophilus and his contemporaries drew on this correspondence; gifts of the Holy Spirit, interpreted as virtues that guide the spiritual life, appear as themes both in twelfth-century exegetical writings and in contemporary artistic programs.⁷⁴ In the *Didascalicon*, Hugh of St. Victor writes of the restoration of the likeness of God in man as occurring through the “contemplation of truth and the practice of virtue.”⁷⁵ In his *De quinque septenis seu septenariis opusculum*, he describes and links occurrences of five sets of the number seven in the Old and New Testaments: the seven virtues and seven beatitudes, the seven vices, the seven gifts of the Holy Spirit, and the seven precepts of the Lord’s prayer.⁷⁶ Similarly, Rupert of Deutz, in setting guidelines for a “more intense Benedictine life,” turned again to the teachings of the Sermon on the Mount, applying its schema of virtue to daily and liturgical life. His alignment of the days of Holy Week with the gifts of the Holy Spirit in *De divinis officiis* is fleshed out in his commentary on the book of Matthew: the beatitudes, he explains, are a salve for the human soul. They are virtues which operate on mankind through the death and suffering of Christ, and are made accessible to mankind through scripture and the performance of the divine office.⁷⁷ In a comment which draws on the notion of retrospection and return encompassed by Augustine’s idea of the progress toward perfection, he likens scales of music to the beatitudes. Containing seven tones just like the seven gifts, the eighth note, the octave, is

⁷⁴ On the renewed interest in the gifts of the Holy Spirit in the twelfth century, see also Dodwell, *DDA*, as ch. 1, note 5: xx-xxiii.

⁷⁵ Hugh of St. Victor, *Didascalicon*, Book 1, ch. 8, “In What Man is like unto God;” Taylor, as ch. 2, note 16: 54-55.

⁷⁶ Hugh of St. Victor, *De quinque septenis seu septenariis opusculum*, PL 175. See esp. Cap. I, *Quaenam sint quinque septena in sacra scriptura contenta*, col. 405b; and Cap. V, “*De septem donis spiritus sancti, seorsum*,” col. 410c-d.

⁷⁷ Rupert of Deutz, *De divinis officiis*, Book VII, ch. 11; as ch. 2, note 17: 2051; and *De gloria et honore filii hominis super Mattheum*, Book IV; CCCM 29, ed. Hrabranus Haacke, line 38. *Ita uidit, ut misereretur; ita misertus est, ut miserias nostras consolaretur, id est beatitudinem salutis aeternae per passionem et mortem suam nobis operaretur...* See also van Engen, *Rupert of Deutz*, as ch. 2, note 18: 304-306.

as perfection; the perfect ratio, it is resonant with the first; it returns to the beginning of the scale, yet, like the knowledgeable teacher, it operates at a higher frequency, one step closer to the Lord.⁷⁸

So widely known was the alignment between the gifts and the beatitudes that they appear together on a head reliquary made in 1145 at the abbey of Stavelot (Figure 24). Commissioned by the Abbot Wibald (r. 1130-1158), who probably studied with Rupert of Deutz in Liège, the reliquary contains the relics of the second-century pope and saint Alexander.⁷⁹ Made with silver-gilt plating on a wooden core, the reliquary represents Saint Alexander wearing a collar ring of jewels and enamels, with partially gilded, tonsured, hair. The head is set upon a base supported by four dragon feet, cast in bronze and gilded. Many components of this work are made according to techniques described by Theophilus.⁸⁰ The top and four sides of the base are covered with engraved brass plaques, pierced to contain semi-precious stones. Twelve enamel plaques, three to a side, are ornamented with images of saints and the personified gifts of the Holy Spirit (Figure 24a-d). Three enamels on the front depict Saints Seventius, Alexander, and Theodolus. Around the sides the gifts of the Holy Spirit are represented as beatitudes: each figure holds a small plaque inscribed with a quotation from Matthew, and a larger inscription identifies a gift, following Augustine's correlation. They appear in the ascending order

⁷⁸ Rupert of Deutz, *super Mattheum*, Book IV, as ch. 2, note 77: line 88.

⁷⁹ Born in 1098, Wibald studied in Stavelot and in Liège until 1117, while Rupert taught in Liège until 1113. Susanne Wittekind, *Altar - Reliquiar - Retabel. Kunst und Liturgie bei Wibald von Stablo. Pictura et Poesis, Interdisziplinäre Studien zum Verhältnis von Literatur und Kunst 17* (Cologne: Böhlau 2003); and for a more biographical overview of Wibald, particularly emphasising the connections between Wibald and other episcopal figures of the time, such as Rupert of Deutz, see Jacques Stiennon, and Joseph Deckers, eds. *Exposition Wibald, abbé de Stavelot-Malmédy et de Corvey (1120-1158)*, exh. cat., (Stavelot: Musée de l'ancienne abbaye, 1982).

⁸⁰ For a study of the bases of head reliquaries, and particularly this one, see Susanne Wittekind, "Caput et corpus: die Bedeutung der Sockel von Kopfreliquiaren," *Reliquiare im Mittelalter*, ed. Bruno Reudenbach and Gia Toussaint, *Hamburger Forschungen zur Kunstgeschichte: Studien, Theorien, Quellen, V* (Berlin: Akademie-Verlag, 2005) 107-135.

given by Augustine, progressing counterclockwise around the base of the reliquary. On the right side panel is humility (*humilitas*), piety (*pietas*), and knowledge (*scientia*) (Figure 24b); fortitude (*fortitudo*) and counsel (*consilium*) flank a crowned wisdom (*sapientia*) on the back (Figure 24c), and intelligence (*intelligentia*), a second wisdom (*sapientia*) and perfection (*perfectio*) complete the circuit on the left side panel (Figure 24d).

The narrative of spiritual ascent in the reliquary is reinforced by the special distinction given to wisdom (*sapientia*). On the left central panel, she appears as the others, as a veiled figure, holding a plaque (Figure 24d). Yet the plaque identifying her beatitude is red, not blue as the others, and she holds it with both hands covered, in honor of the sacred words. As if to underscore the importance given her by the red plaque and covered hands, her pose is still and symmetrical; the other figures, by contrast, are animated and gesture with their hands. The distinction allotted her alerts us to her special status, yet it is the back panel that shows wisdom to be the culmination of the series (Figure 24c). Here, in her second appearance on the reliquary, she takes the central place, interrupting the sequence of gifts. Wearing a jeweled crown, she raises one hand in speech, and in the other she holds a disk with the words “Blessed are the fruits of good work.”⁸¹ With her inscribed disk, the crowned figure of wisdom blesses the fruits of good labor, that labor which is guided by the virtues. She ties spiritual accomplishments to earthly labor, underscoring the monastic goals of progression to wisdom through good works, and is thus appropriately placed opposite the image of the saint Alexander, the example of heavenly virtues made present on earth. Her plaque implicates the object as

⁸¹ See Wittekind, “Caput et corpus,” as ch. 2, note 80; and Wittekind, *Altar – Reliquiare – Retable*, as ch. 2, note 79; and *La Salle aux trésors, chefs-d’œuvre de l’art Roman et Mosan* (Brussels: Musées royaux d’art et d’histoire, 1999) 20-23.

the fruit of good labor as well, just as the virtues are the physical and allegorical base upon which St. Alexander's sainthood rests.

In a way similar to Rupert of Deutz and Hugh of St. Victor, and as on the reliquary of St. Alexander, Theophilus uses the gifts of the Holy Spirit as interpreted by St. Augustine to describe the ascent of the spirit. While the reliquary implicitly links the fruits of work to the progress of virtue, however, Theophilus explicitly defines artisanal work as a progress of the spirit, where the learning of techniques is made analogous to the learning of virtue. Whereas Rupert of Deutz sees the gifts made manifest in the liturgy, and Hugh sees the progression of learning as leading to wisdom, Theophilus applies the ascent of the spirit to the education and practice of the artisan. He defines his purpose to "clearly demonstrate that whatever you can learn, understand or devise is ministered to you by the grace of the seven-fold spirit," employing a strategy that follows Augustine, for whom the beatitudes and the gifts of the Holy Spirit "perfectly shape the life of those who wish to live according to [the words of the Sermon of the Mount] ... this sermon has been made up of all the precepts by which Christian life has vitality."⁸² Although Theophilus returns to Isaiah's order of descending gifts as he quotes them in the last prologue, Augustine's seven steps, ascending from fear of the Lord to wisdom, help give shape to the prologues, so that the artist's education occurs in an ascending pattern.

Theophilus' quotation of Isaiah, listing the gifts in descending order, carries its own significance. For Augustine, and as elaborated upon by Rupert of Deutz, the ascension is a progressive cycle; having reached wisdom, one returns again to fear of the

⁸² Augustine, *Sermon on the Mount* 1.1; trans. Jepson, as ch. 2, note 68: 11-12.

Lord to begin again, to aid others in the ascent.⁸³ As we have seen, the “eighth [maxim] brings into light and shows what is perfect, so that starting, as it were, from the beginning again, the others also are perfected by means of these stages.”⁸⁴ Theophilus employs this model as he quotes the gifts in descending order. Waiting until the last prologue to introduce them explicitly, they function as a summary of accomplishments, and as a mode by which to start again, to return from wisdom to fear of the Lord in order to aid others in the journey. Following this, Theophilus becomes an exemplar both in his teachings and in his actions; like the eighth note of the octave he brings creates a progressive cycle, so that the eighth beatitude, perfection, is made manifest in the reflection back upon the virtues accomplished. It is the humble recognition of the Kingdom of God, and the willingness to teach others.

The descent from wisdom to fear that Theophilus cites in the last prologue, therefore, is a summary of progress as well as an indication of the ultimate humility. It asserts that “the beginning of wisdom is the fear of the Lord;” the learned man returns to simple beginnings in order to teach the novice, which is only possible because he has already reached a higher level of understanding. The gifts thus appear throughout the text as virtues that the artist must master; they enable the ascent of the soul and guide the creation of the art as laid out in the instructions. They create a hierarchy that runs through the text and organizes objects, their materials, the techniques required for them, orienting them toward the progress of the spirit. In this process, the first step is humility.

⁸³ Rupert of Deutz, *super Mattheum*, Book IV, as ch. 2, note 77: line 88.

⁸⁴ Augustine, *Sermon on the Mount*, 3.10; trans. Jepson, as ch. 2 note 68.

Book One: Humility and Fear of the Lord

The narrative of spiritual ascent in *On Diverse Arts* begins as soon as Theophilus introduces himself at the beginning of the treatise, as he does so with a trope of humility: “Theophilus – humble priest, servant of servants of God, unworthy of the name and profession of monk,”⁸⁵ and he commends those “who are willing to avoid and spurn idleness and the shiftlessness of the mind by the useful occupation of their hands and the agreeable contemplation of new things.”⁸⁶ Theophilus identifies himself as a monk and priest, making no reference to his artistic skill or knowledge. His initial expression of humility, not unusual in introductions, here serves to set the stage for an account of parallel progress of teacher and student as one guides the other through a process of learning.⁸⁷ His humility is evidence of his own spiritual advancement,⁸⁸ which provides an example for his readers and calls attention to humility as the necessary condition for learning.

Having begun with this claim of humility, Theophilus continues with a reference to the beginnings of the world: “In the account of the creation of the world we read that man was created by the divine breath, breathed into him,” by which distinction, “he was placed above the other living creatures, so that, capable of reason, he acquired participation in the wisdom and skill of the divine intelligence.”⁸⁹ Theophilus’ emphasis on the divine creation of man by God has persuasively been seen as his means of justifying human endeavors through the biblical claim that man was made in God’s

⁸⁵ Theophilus, prologue to Book I; Dodwell, *DDA*, as ch. 1, note 5: 1.

⁸⁶ Theophilus, prologue to Book I; Dodwell, *DDA*, as ch. 1, note 5: 1.

⁸⁷ cf. Abbot Suger, *Ordinatio*, where he begins: *Sugerus, beati Dionysii qualiscumque abbas...* in Panofsky, *Abbot Suger*; as ch. 2 note 46: 122.

⁸⁸ For humilty tropes see Bruno Reudenbach, “Werkkünste und Künstlerkonzept,” in Stiegemann, and Westermann-Angerhausen, eds, *Schatzkunst*, as ch. 1, note 2: 243-248.

⁸⁹ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1.

image.⁹⁰ According to John Van Engen, “Theophilus’ justification of the craftsman’s labor is founded directly upon his view of man’s remaining image-likeness to God ... all men possess the skills of the craftsman, at least latently, by virtue of their creation in the image-likeness of God.”⁹¹ It is the latent possibility of restored image-likeness that as Van Engen suggests, defines the religious view of *On Diverse Arts*.

Indeed, the rest of the passage is concerned with the fall of man:

Wretchedly deceived by the guile of the Devil, through the sin of disobedience he lost the privilege of immortality, but however, so far transmitted to later posterity the distinction of wisdom and intelligence, that whoever will contribute both care and concern is able to attain a capacity for all arts and skills, as if by hereditary right.⁹²

Taking the fall into account, we see that the possibility of restoration marks the start of a narrative. Theophilus’ treatise begins as a story of redemption through learning. As Dodwell suggests, Theophilus sees human skill as “an inheritance of those qualities which man possessed in full measure before the fall.”⁹³ The formulation of this phrase in Latin is informative: *divinae prudentiae consilii ingenique mereretur participium*, Theophilus explains that man had participation in the *consilium* and *ingenium* of divine prudence; the former might be translated as counsel, decision making, or mental activity, like *ratio*, while the latter suggests innate capacity, natural ability, and acumen. After the fall, he lost rationality, but retained the dignity of *scientia* and *intelligentia*. What man can gain again, through work and virtue, is the capacity for *artes* and *ingenium*, an ability

⁹⁰ See especially Reudenbach, “Praxisorientierung und Theologie,” as ch. 1 note 12; and Mariaux, “La ‘double’ formation de l’artiste,” as ch. 1, note 15. For many scholars, this likeness makes the artist as analogous to God. See especially Mariaux, 44. van Engen writes of debates on Man’s image-likeness as common in the twelfth century, see “Theophilus Presbyter and Rupert of Deutz,” as ch. 1 note 12: 149-151.

⁹¹ van Engen, “Theophilus Presbyter and Rupert of Deutz,” as ch. 1 note 12: 150.

⁹² Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1.

⁹³ Dodwell, *DDA*, as ch. 1 note 5: x.

or faculty for an activity, and again, an acumen for it.

Hugh of St. Victor similarly explains the purpose of learning as a process, one proceeding from latent to realized potential, which leads to wisdom and redemption. Learning leads to wisdom because for Hugh, the “dignity” of man is that “the mind, imprinted with the likenesses of all things, is said to be all things and to receive its composition from all things and to contain them not as actual components, or formally, but virtually and potentially.” Though all possess this potentiality, the possibility of fulfilling it is made difficult by the temptations and confusions of earthly existence; “but,” Hugh writes, “we are restored through instruction, so that we may recognize our nature and learn not to seek outside ourselves what we can find within. “The highest curative in life,’ therefore, is the pursuit of wisdom.”⁹⁴ For Hugh, the learning process is a way of clearing that obfuscation, and it is achieved by understanding the order of things, recognizing that all things are due to God, all capacities and all parts of nature are created by him. Hugh thus makes the sensual realm a subject of learning, but the mode of such education is primarily intellectual.

As does Hugh, Theophilus, in his discussion of the creation and fall, sets up a narrative where learning is the uncovering of a pre-existing potential; it is the pursuit of a wisdom that is the inheritance of God. Importantly, Theophilus emphasizes the performative, active nature of that process. He writes that whoever will “contribute care and concern is able to attain a capacity for all arts and skills”⁹⁵ and “what God has given

⁹⁴ Hugh of St. Victor, *Didascalicon*, Book I, chapter 1; Taylor, as ch. 2 note 16: 47. For a study of Hugh’s pedagogical thought in terms of the history of scholasticism, see Jerome Taylor’s introduction to the *Didascalicon*: 18-19. In his book *Scholastic Humanism*, Richard Southern addresses in depth the precepts of Scholastic thought and its basis in the idea that man’s knowledge of the world was lost in the fall, see Southern, *Scholastic Humanism*, as ch. 2 note 15.

⁹⁵ Theophilus, Prologue to Book I; Dodwell, *DDA*, as ch. 1 note 5: 1.

man as an inheritance, let man strive and work with all eagerness to attain.”⁹⁶ Skills and abilities, or *artes* and *ingenium*, then, can be seen as the manifestation of the intelligence that is the inheritance of God. Restoration to God is achieved by making use of the abilities and intelligence which God has given, employing knowledge in the service and worship of God.

As the prologue continues, Theophilus turns his attention to his reader, urging him to be humble. In Augustinian fashion, he links to his own fear of the Lord: “Fearful of incurring this judgment, I, an unworthy and frail mortal of little consequence, freely offer to all, who wish to learn with humility, what has freely been given to me by the divine condescension, which gives to all in abundance and holds it against no man.”⁹⁷ For Theophilus, humility is the recognition of God and the realization that all have potential to learn. The idea seems to expand on Augustine, who writes in *On Christian Doctrine* that God “has also given to each gifts suitable for the building up of his Church, that we may do what he points out as right to be done, not only without a murmur, but even with delight.”⁹⁸ For Hugh of St. Victor, too, learning is the potential of all people, a gift of God that must be recognized: “This then, is that dignity of our nature which all naturally possess in equal measure, but which all do not equally understand.”⁹⁹ Similarly, Theophilus urges his readers “to recognise God’s favour towards me and to appreciate His generosity, and I will have them know that they can be quite sure that the same things

⁹⁶ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 2.

⁹⁷ Theophilus, Prologue to Book I; Dodwell, *DDA*, as ch. 1 note 5: 2.

⁹⁸ Augustine, *De Doctrina Christiana*, 1.15; in Augustine, *The Confessions, The City of God, On Christian Doctrine*, Great Books of the Western World Series 18, ed. Robert Maynard Hutchins, and trans. Marcus Dods and J.F. Shaw, (Chicago: Encyclopedia Britannica, 1952): 628; for *On Christian Doctrine* within the context of twelfth-century learning, see Edward D. English, *Reading and Wisdom: the De Doctrina Christiana of Augustine in the Middle Ages*, with Grover Zinn, contrib. (Notre Dame: University of Notre Dame Press, 1995).

⁹⁹ Hugh of St. Victor, *Didascalicon*, Book I, ch. 1; Taylor, as ch. 2 note 16: 47.

are at hand for themselves if they will add their own labour.”¹⁰⁰ Humility is the first step of the learning process. As described by Augustine in the Sermon on the Mount, it is that “blessedness starts with humility: *Blessed are the poor in spirit*, that is, those who are not puffed up, whose soul is submissive to divine authority, who stand in dread of punishment after this life despite the seeming blessedness of their earthly life.”¹⁰¹ The program set out in the first prologue then, begins with humility, first gift of the Holy Spirit and the first step on the ascent toward wisdom.

Theophilus then moves on to explore the themes of piety and knowledge. In the next passage of the prologue, Theophilus exhorts the reader to be pious, to value the material gifts that God has given:

do not despise useful and precious things, simply because
your native earth has produced them for you unexpectedly.
For foolish is the merchant who suddenly finds a treasure in
a hole in the ground and fails to pick it up and keep it.¹⁰²

The warning is against the prideful neglect of God’s gifts: recognizing the source of all gifts in God is the first step, valuing them is the next. For Augustine too the second maxim, “Blessed are the meek,” is aligned with godliness, or piety, which he describes as treasuring the Scripture of God and not neglecting its truth through pride: the soul “makes itself acquainted with Sacred Scripture according to which it must show itself meek through piety, so that it may not make bold to censure what appears a stumbling block to the uninstructed and thus become intractable by obstinate argumentation.”¹⁰³

¹⁰⁰ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 2.

¹⁰¹ Augustine, *Sermon on the Mount*, 1.3; trans. Jepson, as ch. 2, note 68: 17.

¹⁰² Theophilus, Prologue to Book I; Dodwell, *DDA*, as ch. 1, note 5: 3.

¹⁰³ Augustine, *Sermon on the Mount*, 1.3; trans. Jepson, as ch. 2, note 68: 17.

The final section of the first prologue addresses the gift of knowledge. Theophilus summarizes what he will teach to the initiate: all-encompassing technical information from all over the world. In so doing he provides an ethnography of medieval craft knowledge:

If you diligently examine it, you will find in it whatever kinds and blends of various colours Greece possesses: whatever Russia knows of workmanship in enamels or variety of niello; whatever Arabia adorns with repoussé or cast work, or engravings in relief: whatever gold embellishments Italy applies to various vessels or the carving of gems and ivories: whatever France esteems in her precious variety of windows: whatever skilled Germany praises in subtle work in gold, silver, copper, iron, wood and stone.¹⁰⁴

In the list of sources of the worldly wisdom he will impart, spiritual wisdom is conspicuously absent. The bulk of the techniques to which he refers, moreover, are set out in the third book, which describes those that require the highest level of learning.¹⁰⁵ The passage refers to the goal of the project, but only to the technical goal, thereby creating a contrast between the world's knowledge and spiritual wisdom. As Augustine explains it, with learning comes loss: "Those who mourn" in the third beatitude mourn the loss of the worldly. Their knowledge has led them to see what they must keep and what they must give up for the sake of God. They realize the cost of clinging to earthly things: "in this third step, then, wherein is knowledge, there is grief for the loss of the highest good through clinging to the lowest."¹⁰⁶ Theophilus too makes it a point to

¹⁰⁴ Theophilus, Prologue to Book I; Dodwell, *DDA*, as ch. 1, note 5: 4.

¹⁰⁵ Of the six countries and thirteen techniques Theophilus lists here, eleven are treated in the last book, one in the first book (pigments) and one in the second book (glass). Theophilus, Prologue to Book I; Dodwell, *DDA*, as ch. 1 note 5: 4.

¹⁰⁶ Augustine, *Sermon on the Mount*, 1.3; trans. Jepson, as ch. 2 note 68: 17.

explain that the knowledge he presents is directed toward a divine purpose, a higher good:

He [God] knows that I have written the things collected here out of no love for human approbation nor greed for temporal gain, and that I have not appropriated anything precious or rare nor kept silent about something reserved especially for myself from malice or envy, but that, to increase the honour and glory of His name, I have ministered to the necessities of the many and had regard to their advantage.¹⁰⁷

Theophilus presents a body of knowledge, but it is not knowledge for its own sake; it is for the sake of God. In turn, Theophilus' student will learn the sum of the world's techniques, each potentially lucrative; but the greater purpose of learning is not temporal gain. Pamela Long has suggested that Theophilus presents his material according to Benedictine ideals of humility, where knowledge is to be open and accessible.¹⁰⁸ I suggest, however, that his catalogue of information serves an even more complex function: more than an inventory of information, and more than a demonstration of openness, it seeks to show the limits of worldly knowledge. Theophilus makes available instructions for a large number of techniques, gathered from across the world; but, following the lead of Augustine, he argues that with knowledge comes the responsibility to use it for good purpose.

Theophilus emphasizes the idea that with knowledge comes responsibility. Having completed his catalogue of techniques, he immediately urges the reader to pray for him: "When you have read through these things several times ... you will recompense me for the labour of instruction if every time you make good use of my work you pray to

¹⁰⁷ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 4.

¹⁰⁸ Long, *Openness, Secrecy, Authorship*, as ch. 1 note 9: 85-88.

Almighty God to have mercy on me.”¹⁰⁹ Having gained knowledge, the reader is urged first and foremost to look to God and to pray for Theophilus, who himself has gained knowledge thanks to God. The awareness that God is the ultimate source of knowledge, clarifies the importance of a humble attitude. As Augustine writes: with knowledge, the soul “now begins to know in what entanglements of this world it is held by reason of carnal custom and sins.”¹¹⁰ For both Augustine and Theophilus, knowledge contains a paradox: true knowledge is based in humility and thus is the recognition of its limits, the recognition that knowledge of the world is only good if it serves the higher good, which is God. Otherwise, as Augustine writes, it is the entanglement in the world. One may know many worldly things, but, as Theophilus demonstrates, knowledge is not an end in itself, but rather serves only so that one may know to give it up, to use it to “increase the honour and glory of His name” by teaching, or “ministering to the necessities of the many,” with “regard to their advantage.”¹¹¹

The pedagogical program laid out by Theophilus in the first prologue is played out in the body of the text. These are no random accumulation of instructions. The selection, order, and content of the instructions can be seen to mirror, to the degree possible, the narrative of the prologues. On the one hand, by thematic reference, they recapitulate the fall and redemption of man; on the other, in a carefully gauged pedagogical program, they proceed from simplicity to complexity, even in the mixing of materials and in the number of steps required to complete a process. The book addresses the arts of painting, but it is more than a compilation of recipes for mixing pigments. Again, only the first half is concerned strictly with pigments; the second half deals with

¹⁰⁹ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 4.

¹¹⁰ Augustine, *Sermon on the Mount*, 3.10; trans. Jepson, as ch. 2 note 68.

¹¹¹ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 4.

compound substances like glue and gesso, and their use in the assembly of complex objects like altar panels.¹¹²

It is no accident that the neophyte is first instructed in mixing color for the rendering of nude bodies. Images of Adam and Eve, like one depicting the Temptation from around 1100 in the chancel of the Norman church of St. Botolph, in Hardham, Sussex (Figure 25; cf. Figure 14)¹¹³ are nearly the only nude figures represented in early twelfth-century painting programs, and their nudity encapsulates their role in the story of sin and salvation.¹¹⁴ It has been suggested that the second chapter, on representing “green earth,” evokes Eden, which Bruno Reudenbach has interpreted as a reference to the creation of man in God’s image, and thus a justification for man’s creative activities.¹¹⁵ Theophilus’ justification of art-making is much more complex however; the reference to Eden is just the beginning of a longer narrative. Eden marks the initial stage in a narrative of fall and redemption.

Therefore, probing the correspondence between prologues and instructions further, we see that just as the prologue told the story of the fall, beginning a narrative of redemption, so too the instructions continue the narrative from Eden to fallen man. The chapter on nude bodies and green earth is followed immediately by an account of how to apply the “first shadow colour” and the “first rose colour”; as the book progresses, chapters describe the “hair of youths,” the “hair of old men,” and finally, in chapter

¹¹² Book I, ch. xvii, “The Panels of Altars and Doors and Casein Glue;” Dodwell, *DDA*, as ch. 1 note 5: 16-17; ch. xviii, “Glue Made from Hide and Harsthorn;” idem: 17; ch. xix, “Whitening Hide and Wood with Gesso;” idem: 18.

¹¹³ Roger Rosewell, *Medieval Wall Paintings in English and Welsh Churches* (Woodbridge, UK, 2008) 34-37; and Ernest William Tristram, *English Medieval Wall Painting; The Twelfth Century*, compiled in collaboration with William George Constable (London: Courtauld Institute of Art, 1944) 27-28 and plate 34.

¹¹⁴ For representations of Adam and Eve in early medieval wall painting, see Roger Rosewell, *Medieval Wall Paintings*, as ch. 2, note 113: 34-37.

¹¹⁵ Reudenbach, “Praxisorientierung und Theologie,” as ch. 1 note 12.

fifteen, drapery, the covering of nakedness.¹¹⁶ The first two chapters do suggest the purity of man before the fall; yet the next thirteen chapters suggest the aging of man after the expulsion and his shame. It is striking that soon, just after the chapter on drapery, Theophilus describes how to paint the band of the rainbow, the *arcus pluvialis*.¹¹⁷ While *arcus* can mean a rainbow or simply an arc, the addition of the genitive *pluvialis* explicitly defines it as the arc of the rain, evoking a symbol readers would recognize as the sign of the covenant given to Noah by God in the Book of Genesis. There, God says to Noah: “I will establish my covenant with you, and all flesh shall be no more destroyed with the waters of a flood, neither shall there be from henceforth a flood to waste the earth. And God said: This is the sign of the covenant which I give between me and you, and to every living soul that is with you, for perpetual generations. I will set my bow (*arcum meum*) in the clouds, and it shall be the sign of a covenant between me and between the earth.”¹¹⁸

The imagery Theophilus describes in the chapter is rich with significance when this description of a rainbow is seen as a symbol. Theophilus describes the rainbow as a method by which: “round and rectangular thrones are painted, drawings round borders, the trunks of trees with their branches, columns, round towers, seats and whatever you want to appear round...”¹¹⁹ The method may be more than the creation of visual effect.

¹¹⁶ Theophilus, Book I, ch. iii, “The First Shadow Colour for Flesh;” ch. iv, “The First Rose Color;” ch. v, “The First Highlight;” ch. vi, “The Dark Grey which is applied to the Eyes;” ch. vii, “The Second Shadow Colour for Flesh;” ch. viii, “The Second Rose Colour;” ch. ix, “The Second Highlight;” ch. x, “The Hair of Boys, Youths and Young Men;” ch. xi, “The Beards of Youths;” ch. xii, “The Hair and Beards of the Senile and the Old;” ch. xiii, “Dark Red and the Remaining Colours for the Face;” ch. xiv, “Mixing Colours for Draperies on a Panelled Ceiling;” ch. xv, “Mixing Colours for Draperies in Wall Paintings;” Dodwell, *DDA*, as ch. 1 note 5: 5-13.

¹¹⁷ Theophilus, Book I, ch. xvi, “The Coloured Band Which Looks Like A Rainbow;” Dodwell, *DDA*, as ch. 1 note 5: 14-16.

¹¹⁸ Genesis 9:11-13.

¹¹⁹ Theophilus, Book I, ch. xvi, “The Coloured Band Which Looks Like A Rainbow;” Dodwell, *DDA*, as

Such a colored-band is visible, for example, in an image of Christ in Majesty, made in 1097 for the great Stavelot Bible.¹²⁰ Here Christ's mandorla is shown as a multi-colored band (Figure 26). The band, as the rest of the image, is a depiction of the vision of the Apocalypse, based on Ezekiel's vision of the throne of God.¹²¹ Ezekiel describes the throne as surrounded by a rainbow: "And above the firmament that was over their heads, was the likeness of a throne, as the appearance of the sapphire stone, and upon the likeness of the throne, was a likeness as of the appearance of a man above upon it. And I saw as it were the resemblance of amber as the appearance of fire within it round about: from his loins and upward, and from his loins downward, I saw as it were the resemblance of fire shining round about. As the appearance of the rainbow when it is in a cloud on a rainy day (*velut aspectum arcus cum fuerit in nube in die pluviae*): this was the appearance of the brightness round about."¹²² Thus Theophilus' reference to a throne is more than a reference to formal effect, but carries symbolic weight as well.

The rainbow of the throne also evokes ideas relating back to Noah. In his commentary on the Book of Ezekiel, Rupert of Deutz interprets the fire surrounding the throne in Ezekiel as a reference to the anger of God which led to the Flood; accordingly, the rainbow of the throne is a reference to the covenant of God with Noah. This connection bears out in the visual tradition: in an image of Noah accepting the rainbow as a sign of the covenant with God in the eleventh-century Anglo-Saxon Hexateuch from Canterbury, now preserved at the British Library in London, the rainbow hovers over all

ch. 1 note 5: 15.

¹²⁰ Fol. 136r. For an overview of the illuminations in the bible, see Wayne Dynes, *The Illuminations of the Stavelot Bible* (New York: Garland, 1978).

¹²¹ Revelations 4:1-3; Ezekiel, 1:5, 26-28.

¹²² Ezekiel 1:26-28.

the figures as a canopy (Figure 27).¹²³ In the early thirteenth-century window of Noah, in the north aisle at Chartres, it is shown again; this time the rainbow forms the border between God and man, in a way that is not dissimilar from the rainbow which forms the mandorla-border between Christ in Majesty and the Evangelist figures in the Stavelot Bible (Figures 28, 26).¹²⁴ The vision of the rainbow carries through to the Apocalypse, in spite of the fact that the Vulgate does not explicitly include the word; as in the Stavelot image, Rupert's comment on the throne in John's vision nevertheless includes the rainbow, and he aligns it here as well with the covenant of Noah and the possibility of redemption. From the beginning of time, with Noah, to the reign of Christ in Majesty at the end of time, the rainbow is a sign that atonement and redemption are possible.¹²⁵

From this standpoint, we can interpret Theophilus' inclusion of trees and branches in his list of images as significant as well. As symbols of new life, these would have been seen in images of the Tree of Knowledge and Tree of Life in Eden, the Tree of Jesse, and evoked in images of the cross of the Crucifixion. The idea of landscape, though rarely depicted per se, is also a major part of the Noah story, as it is the visual proof that the flood has ended, and foreshadows the covenant of the rainbow. That Theophilus elaborates on the topic further on in his instructions, then, is perhaps not surprising. At the end of the chapter he writes: "Tree-trunks are painted with a mixture of viridian and

¹²³ Noah and the Rainbow, Old English Hexateuch, Canterbury, 2nd quarter eleventh century, London, British Library Cotton Claudius B IV, fol. 16v. For images of Genesis, and the rainbow of Noah, in manuscripts see George Henderson, "Late-Antique Influences in Some Mediaeval Illustrations of Genesis," *Journal of the Warburg and Courtauld Institutes* 25 no. 3/4 (1962) 172-198; and John Lowden, "Concerning the Cotton Genesis and Other Illustrated Manuscripts of Genesis," *Gesta* 31/1 (1992) 40-53.

¹²⁴ Bay 47, north aisle, first window. See Colette Manhes-Deremble, *Les vitraux narratifs de la Cathédrale de Chartres: étude iconographique*, Corpus vitrearum, France: études 2 (Paris: Léopard d'Or, 1993) 370-371; and Colette and Jean-Paul Deremble, *Vitraux de Chartres* (Paris: Zodiaque 2003) 34-37; and Paul Frankl, "The Chronology of the Stained Glass in Chartres Cathedral," *The Art Bulletin* 45 / 4 (1963) 301-322.

¹²⁵ Rupert of Deutz, *Commentary on Ezekiel*, in *De trinitate et operibus ejus*, Book 30; CCCM 23, as ch. 2 note 16: 1664.

yellow ochre with the addition of a little black and sap green. With this colour one also paints the earth and mountains.”¹²⁶

Taken as a whole, the chapter on the rainbow marks a turning point in the book, where the sins of the fall give way to the possibility of redemption. It mirrors that moment in the prologue when Theophilus writes of the advent of Christianity: “finally, with the passage of time [human skill and purpose were] transmitted to the predestined age of Christian religion. So, it has come about that, what God intended to create for the praise and glory of his name, a people devoted to God has restored to His worship.”¹²⁷

The second half of Book one, from the close of the chapter on rendering the rainbow to the last chapter on making ink, contains no further references to images of man. Instead, the chapters describe the preparation of church furnishings that are to be painted. The chapters fall into three groups of objects that together give evidence of a larger trajectory . First come altars: chapters seventeen and eighteen describe the assembly of panels for altars and the kinds of glue to use; nineteen, twenty, and twenty-one show how to prepare the panels by “Whitening Hide and Wood with Gesso” and “Staining Doors Red” with linseed oil, and how to coat them with “Sticky Varnish.”¹²⁸ Then comes furniture of various sorts, made of wood and covered with paint or metal. In chapter twenty-two, Theophilus explains how to polish and whiten chairs of the saddle and eight-legged type, “footstools and other things that are carved and cannot be covered with leather or cloth...” before they are to be embellished with gold, tinfoil, or oil-based

¹²⁶ Theophilus, Book I, ch. xvi, “The Coloured Band Which Looks Like A Rainbow;” Dodwell, *DDA*, as ch. 1 note 5: 15.

¹²⁷ Theophilus, Book I, Prologue; Dodwell, *DDA*, as ch. 1, note 5: 2.

¹²⁸ Theophilus, Book I, ch. xvii, “The Panels of Altars and Doors and Casein Glue;” ch. xviii, “Glue Made from Hide and Hartshorn;” ch. xix, “Whitening Hide and Wood with Gesso;” ch. xx “Staining Doors Red, and Linseed Oil;” ch. xxi, “Sticky Varnish;” Dodwell, *DDA*, as ch. 1 note 5: 16-20.

paint, the subject of the next five chapters.¹²⁹ Finally comes the ornamentation of books: from chapter twenty-eight, “Grinding Gold for Books and Casting the Mill,” to the last of the book, chapter thirty-eight, “Ink,” the chapters concern the techniques like the application of gold, silver, and tin, and the necessary variation of certain colors pigments for use on parchment leaves.

This entire second half of the book shows a significant shift in subject matter. Before the chapter on the rainbow, instructions were concerned with the images of man and his aging body; after the rainbow, the instructions are concerned with the objects in the church, and how to embellish them with pigment: altars, furniture, and lastly, books. The subject matter of the chapters, therefore, mirror the narrative of the prologue. Just as man, in the prologue, progresses from fallen man to Christian man, wishing to learn useful artistic skills, so too the chapters create a narrative: the first half treats the image of created man then fallen man, and then, with the rainbow as a sign of Christian promise of Redemption, the second half treats the application of skills and the embellishment of objects for the church: altars, furniture, and books.

The instructions of *On Diverse Arts* are arranged to make a point, to progress upward from the simple to the complex. To create the initial flesh tone, it is necessary only to add some vermilion to flake-white.¹³⁰ To create green earth, the second chapter, one must do the opposite, adding black to vermilion.¹³¹ The instructions for the first shadow, in the third chapter, are slightly more complicated but build quite concretely

¹²⁹ Ch. xxii, “Horsesaddles and Litters;” Dodwell, *DDA*, as ch. 1 note 5, 20. Dodwell’s translation here suggests a secular object that is misleading: the latin title is *de sellis equestribus et octoforis*: with only one noun, the structure of the latin suggests two types of the same chair: I therefore translate the chapter title, as “Chairs of the equestrian and eight-legged type,” both of which, I believe, would be church furnishings, given the gilding and paint ornament Theophilus describes.

¹³⁰ Theophilus, Book I, ch. i, “The Mixing of Colours for Nude Bodies;” Dodwell, *DDA*, as ch. 1 note 5: 5.

¹³¹ Theophilus, Book I, ch. ii, “The Colour, Green Earth;” Dodwell, *DDA*, as ch. 1 note 5: 5.

upon the first two: one begins with the first flesh color and adds the second, green earth, followed by burnt ochre red.¹³² The instructions in the next chapters follow a similar pattern; each builds on the one prior, adding a new element and increasing the number of steps to achieve a desired end: to paint the beards of youths, for example, one mixes the green earth of chapter two, the burnt ochre of chapter three, and the rose color of chapter four, and then, to fill in the beard, adds burnt ochre to the mixture of yellow ochre and black of the previous chapter, on hair.¹³³ The instructions for draperies and the rainbow are the most complicated of all: to paint draperies, one must create shadows and highlights in a variety of colors, while painting a rainbow requires various colors, each shadowed or highlighted, set next to each other. It is almost as though the instructions increase in complexity exponentially; the instructions of each chapter contain more and more parts, and these parts themselves contain more and more parts.

Again the instructions in the second half of the book represent a shift. These, coming after the chapter on the rainbow, describe composite materials and techniques that require multiple steps and multiple materials. Chapter seventeen, just after the chapter on the rainbow, describes how to make glue from cheese and quicklime and how to use that glue to join altar panels; by the twenty-ninth chapter, on the application of gold and silver in books, the instructions call for lead, vermilion, egg, glue, and gold or silver, and describe a four-step process of preparing the surface, mixing glue with gold, applying it, and polishing it. Complexity, too, increases in the kinds of objects described: while the first half of the book treats only painted images, the objects of the second half, again, are composite objects, beginning with altar panels and doors, continuing to

¹³² Theophilus, Book I, ch. iii, “The First Shadow Colour for Flesh;” Dodwell, *DDA*, as ch. 1 note 5: 5-6.

¹³³ Theophilus, Book I, ch. xi, “The Beards of Youths;” Dodwell, *DDA*, as ch. 1 note 5: 8.

embellished furniture and lastly, to books, with their painted leaves and jeweled covers.¹³⁴

To be certain, the progression of chapters in text demonstrates a pedagogical awareness; the nature of the pedagogical strategy is a cumulative one. The steps build one upon the other; they cannot be read out of order because each new technique depends upon the techniques described in chapters prior. It is as though the techniques multiply in an expanding field of knowledge. The techniques progress, each requiring the mastery of the earlier one; they mirror the progressive narrative of the prologue, where the ascension of the soul is described in similar ways as a building up of virtues, where knowledge requires piety, and piety requires humility.

Book Two: Fortitude, Counsel, and Understanding

The prologue to the second book centers on the themes of work and obedience, building on, and adding to, the lessons of the first. Theophilus makes this clear in the opening of the prologue, as he sums up the themes of the prior prologue, saying,

Actuated, dearest brother, by a sincere affection, I did not hesitate to suggest to you in the preceding book how much honour and advantage there is in eschewing idleness and in spurning laziness and sloth; and how sweet and delightful it is to give one's attention to the practice of the various useful arts according to the saying of a certain author who declares: 'To know something is praiseworthy; to be unwilling to learn anything is reprehensible.'¹³⁵

¹³⁴ Theophilus, Book I, ch. xvii, "The Panels of Altars and Doors and Casein Glue;" Dodwell, *DDA*, as ch. 1 note 5: 16; ch. xxii, "Horse-saddles and Litters;" idem: 20; and ch. xxxii, "How colours are prepared for books;" idem: 30.

¹³⁵ Theophilus, Prologue to Book II; Dodwell, *DDA*, as ch. 1 note 5: 36. The quotation is from Marcus Portius Cato's book of proverbs, the *Disticha Catonis*, IV, 29: *Non pudeat quae nescieris te velle doceri; Scire aliquid laus est, culpa est nihil discere velle*. See *Disticha uel dicta Catonis: collectio distichorum uulgaris*, ed. Emil Baehrens, *Poetae Latini Minores III* (Leipzig: Teubner, 1881) 214-236; 233.

With this last quotation from Cato's *Proverbs*, Theophilus highlights the humility necessary for one to rightly acquire knowledge, since to be unwilling to learn is a sin not only of ignorance, but of pride and impiety as well. Theophilus now progresses to the next step, in the ascent toward wisdom, that of "fortitude," which he interprets as the strength required of labor. He continues: "Nor should anyone be slow to approach him, of whom Solomon says: 'He that increaseth knowledge increaseth labour,' because, if he thinks seriously about it, he will be able to observe how much progress of the soul and body results thereby."¹³⁶ Knowledge comes first, but labor is required for progress of body and soul: "it is as clear as day, that whoever is abandoned to idleness and irresponsibility also indulges in ...things... which are repugnant in the sight of God."¹³⁷ Here again the Harley manuscript helps in gauging reader response, for a pointing hand is inserted in the margin beside this exhortation against idleness.¹³⁸ This exhortation seems to function on analogy to Augustine's treatment of the fourth beatitude and gift: "In the fourth step there is hard work. The soul puts forth tremendous effort to wrench itself from the pernicious delights which bind it."¹³⁹ *Fortitudo*, he continues, corresponds to those who hunger and thirst, "for they labor in a desire for the joy that comes from what is truly good and in an effort to stem their love for the earthly and corruptible."¹⁴⁰

Theophilus begins the second half of the prologue by describing the learning and teaching process, and in this he evokes the gift of *consilio*, or counsel:

¹³⁶ Theophilus, Prologue to Book II; Dodwell, *DDA*, as ch. 1 note 5: 36. Tellingly, the latin *laborem* also carries connotations of weariness or sorrow, thus the term might refer as well to the sorrow and necessity of labor incurred on man after the fall, making the allusion all the more rich.

¹³⁷ Theophilus, Prologue II; Dodwell, *DDA*, as ch. 1 note 5: 36.

¹³⁸ London, British Library Harley 3915 fol. 20v. For the idea of manual labor in the twelfth-century Benedictine context, see van Engen, "Theophilus Presbyter and Rupert of Deutz," as ch. 1, note 12: 155-156; and St. Benedict, *RB 1980 : the rule of St. Benedict in Latin and English with notes*, Timothy Fry, ed. (Collegeville, MN: Liturgical Press, 1981); ch. 48, "The Daily Manual Labor," 249-250.

¹³⁹ Augustine, *Sermon on the Mount*, 1.3; trans. Jepson, as ch. 2, note 68: 17.

¹⁴⁰ Augustine, *Sermon on the Mount*, 1.3; trans. Jepson, as ch. 2, note 68: 17-18, and 19-20.

Desiring to follow this man [Paul], I have approached the temple of holy wisdom.... I have filled the storehouse of my heart with a sufficiency of all those things, and without envy, have clearly set them forth for your study.¹⁴¹

Proclaiming his own learning and generosity, Theophilus encourages the reader to follow his example, just as he did in the first Prologue. Yet the emphasis has changed. Rather than couching his plea in humility, as he did in the first prologue, he now expresses it in terms of “counsel.” Theophilus describes his own education and his desire to pass on what he has learned, thereby offering a model of learning and giving, of learning and teaching. This process again finds parallels in Augustine’s writing, where counsel is “just a proposition: if one wishes to be helped by a more powerful person, let him help someone who is weaker in field wherein he himself holds the advantage,” and that “we help others to the best of our ability as we hope to be helped in our need.”¹⁴²

Theophilus, anticipating the content of Book two, closes the section with a discussion of his increased competence in the glassmaker’s art: “Having applied myself to this task, I understand the nature of the glass, and I consider that this object can be obtained simply by the correct use of the glass and its variety.”¹⁴³ Here is the gift of *scientia*, or understanding, which according to Augustine corresponds to the sixth beatitude: “Blessed are the clean in heart, for they shall see God.”¹⁴⁴ He writes: “cleanness of heart from a good consciousness of works well done, enabling the soul to contemplate that supreme good which can be seen only by a mind that is pure and serene.”¹⁴⁵ The second book builds upon the first: from humility and fear, piety and

¹⁴¹ Theophilus, Prologue to Book II; Dodwell, *DDA*, as ch. 1 note 5: 37.

¹⁴² Augustine, *Sermon on the Mount*, 1.4; trans. Jepson, as ch. 2, note 68: 20.

¹⁴³ Theophilus, Prologue to Book II; Dodwell, *DDA*, as ch. 1 note 5: 37.

¹⁴⁴ Matthew 5:8.

¹⁴⁵ Augustine, *Sermon on the Mount*, 1.3; trans. Jepson, as ch. 2, note 68: 18.

knowledge – passive gifts – grow the active gifts that lead to work, teaching, and understanding.

Like the first book, the instructions in the second book present an expanding series of techniques, where simpler techniques build up to skills that allow the fabrication of more complicated, composite objects. The process is explained from the beginning. From the building of the kilns, to the tools, to the frit, the melted sand that is the raw material of glass,¹⁴⁶ Theophilus deliberately moves on to pure, white glass, and then colored glass – first yellow, a white glass heated for a longer period, and then purple, a color made from yellow glass that has turned “tawny” and is heated it for another two to six hours, with six hours lending a “perfect reddish purple.”¹⁴⁷ The next chapter closes a section, as it describes how to spread and flatten glass, creating sheet glass.¹⁴⁸ Sheet glass, Theophilus writes, can be cut to make windows, but the same preparation of also provides the basis for glass vessels, to which Theophilus next turns.¹⁴⁹ The Wolfenbüttel, Vienna, Harley, and Leipzig manuscripts include in the capitula four chapters on glass colors made with lead and sand, though the text itself lacks them.¹⁵⁰ As did the pigments of Book one, which were made of increasingly complex combinations of elements, these colors require additives; they complicate the process of making colored glass from pure sand, simply heated to various points. This leads to the chapters describing the usefulness

¹⁴⁶ Theophilus, Book II, ch. i, “The Construction of the Kiln for Working Glass;” Dodwell, *DDA*, as ch. 1 note 5: 37-38; ch. ii, “The Annealing Kiln;” idem: 39; ch. iii, “The Kiln for Spreading the Glass and the Tools for the Work;” idem: 39; ch. iv, “The Frit;” idem: 39.

¹⁴⁷ Theophilus, Book II, ch. v, “The Vessels for the Work and the Fusing of White Glass;” Dodwell, *DDA*, as ch. 1 note 5: 40; ch. vi, “How Sheet Glass is Made;” idem: 40-41; ch. vii, “Yellow Glass;” idem: 41-42; ch. viii, “Purple Glass;” idem: 42.

¹⁴⁸ Theophilus, Book II, ch. ix, “Spreading the Sheet Glass;” Dodwell, *DDA*, as ch. 1 note 5: 42-43.

¹⁴⁹ Theophilus, Book II, ch. x, “How Glass Vessels are Made;” Dodwell, *DDA*, as ch. 1 note 5: 43; ch. “Flasks with a Long Neck;” idem: 44.

¹⁵⁰ The capitula are: *De coloribus qui fiunt ex cupro et plumbo et sale, de viridi vitro, de vitro saphireo, de vitro quod vocatur gallien*. See ch. 1, note 49, above.

of Byzantine and pagan glass and earthenware: ancient opaque glass, Greek mosaic glass, and glazed earthenware, which can be used as a pre-fabricated material for glass.¹⁵¹ As “found material” however, the component parts of which these vessels are made is unknown. These then, are a series of composites which can be added to other materials to create more complicated colors, or that involve more complicated techniques, like enamel.

The last section of the book addresses the making and embellishment of windows, including chapters on painting on glass, moulds, assembly, and the setting of gems in windows. These are the culmination of the prior techniques: making use of a variety of colors, the instructions describe, step by step, how to cut glass, paint on it “as in a coloured painting,” fire it, cast the frame of the window, and assemble it into a single piece.¹⁵² The last three chapters provide an addendum, supplying variants on the techniques described previously, addressing “Simple Windows” (windows whose colors are assembled without interior comes, or iron rods), “How to Mend a Broken Vessel” (by applying a low-melting point green and blue glass), and lastly, “Rings” – which can be set with various types of glass or even gems.¹⁵³ Just as in the first book, the techniques of the second book, building upon one another in ever more complex combinations,

¹⁵¹ Theophilus, Book II, ch. xii, “The Various Colours of Opaque Glass;” Dodwell, *DDA*, as ch. 1 note 5: 44; ch. xiii, “Glass Goblets which the Greeks Embellish with Gold and Silver;” idem: 45; ch. xiv, “The Same;” idem: 45-46; ch. xv, “The Greek Glass which Decorates Mosaic Work;” idem: 46; ch. xvi, “Earthenware Vessels Glazed in Various Colours;” idem: 47.

¹⁵² Theophilus, Book II, xvii, “How to Construct Windows;” Dodwell, *DDA*, as ch. 1 note 5: 47-48; ch. xviii, “Cutting the Glass;” idem: 48-49; ch. xix, “The Colour with which the Glass is Painted;” idem: 49; ch. xx, “Three Shades of Colour for Highlights in the Glass;” idem: 50; ch. xxi, “The Embellishment of a Painting on Glass;” idem: 50-51; ch. xxii, “The Kiln in which Glass is Fired;” idem: 51-52; ch. xxiii, “How Glass is Fired;” idem: 52-53; ch. xxiv, “The Iron Moulds;” idem: 53-54; ch. xxv, “Casting Comes;” idem: 54-55; ch. xxvi, “The Wooden Mould;” idem: 55-56; ch. xxvii, “Assembling and Soldering Windows;” idem: 56-57; ch. xxviii, “Setting Gems in Painted Glass;” idem: 57-58.

¹⁵³ Theophilus, ch. xxix, “Simple Windows;” Dodwell, *DDA*, as ch. 1 note 5: 58; ch. xxx, “How to Mend a Broken Glass Vessel;” idem: 58-59; ch. xxxi, “Rings;” idem: 59-60.

proceeding from the sand of the frit to the full-scale window, made of multi-colored glass, assembled with iron, and perhaps even using gems, paint, or remnants of ancient vessels.

Book Three: Wisdom and Perfection

The third book is the culmination of all three books, and from its prologue emerges the theme of wisdom, the seventh gift. This prologue has received the most scholarly attention, since, with its descriptions of the celestial house of David, the temple of Solomon, the tabernacle of Moses and, now explicitly, the gifts of the Holy Spirit, it seems to be the most overt justification of luxury arts in the treatise.¹⁵⁴ As Theophilus himself explains, however, such beauty as that evidenced in the temple is the result of great wisdom; it is begun under King David, renowned for his wisdom and his love of God:

David – renowned among the prophets, whom the Lord God, in His prescience, predestined before the world began, whom He ‘chose after his own heart’ because of his simplicity and humility of mind, and placed as a Prince over His chosen people, strengthening him with a princely spirit so that he might nobly and wisely establish the rule of great a name – David, applying himself with the full force of his mind to the love of his Creator, among other things uttered these words: ‘Lord, I have loved the beauty of Thy House.’¹⁵⁵

For Theophilus, David’s love of God and love of the beauty of His House exemplifies his wisdom. It is evident in the fullness of his love of God, and his closeness to God as he whom God “chose after his own heart:”

¹⁵⁴ For example, Mariaux links Theophilus to David, and Reudenbach links his work to the temple of Solomon and the tabernacle of Moses. Mariaux, “La ‘double’ Formation de L’Artiste,” as ch. 1 note 15; Reudenbach, “*Ornatus materialis domus Dei*,” as ch. 1, note 18.

¹⁵⁵ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 61.

It is true that a man of such authority and such great intellect may have meant by that House the habitation of the heavenly court, in which God presides over hymning choirs of angels in inestimable glory... or else the refuge of a devoted breast and pure heart where truly God dwells... Nevertheless it is certain that he desired the embellishment of the material House of God, which is the place of prayer.¹⁵⁶

David's heart is a heart turned to God; his wisdom is the product of his intellect, of piety, and of his devotion to God. These can be understood in the light of Augustine's interpretation of the seventh gift: "the seventh step is wisdom itself, that is, contemplation of the truth, bringing peace to the whole man and effecting a likeness to God."¹⁵⁷

As he continues, Theophilus writes that while David desires "ardently" to build a temple for God, he cannot, and must leave the project to his son Solomon:

For, he himself longed with a most ardent desire to become the founder of the House of God but, because of his frequent spilling of human, albeit enemy blood, he did not merit it". As a result, he "entrusted almost all the needful resources in gold, silver, bronze and iron to his Son Solomon."¹⁵⁸

David's awareness that he cannot achieve the building of the temple is a recognition of his own limitations, those brought on by his sins. It thus also confirms his wisdom, humility, and understanding: "by pious reflection [David] had discerned that God delighted in embellishment of this kind, the execution of which he assigned to the power and guidance of the Holy Spirit, and he believed that nothing of this kind could be endeavoured without His inspiration."¹⁵⁹ The recognition that all things come through the

¹⁵⁶ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 61.

¹⁵⁷ Augustine, *Sermon on the Mount*, 1.3; trans. Jepson, as ch. 2, note 68: 18.

¹⁵⁸ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 61-62.

¹⁵⁹ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 62.

beneficence of God can be seen as what Augustine describes as *perfectio*. This, we recall, is not one of the seven gifts but the eighth beatitude, that which marks the completion of the process and allows the ascent to begin again, just as the eighth note of a scale is the end of one octave, and the beginning of another. With *perfectio*, Augustine writes:

to the number seven... an eighth is added, so that ...we, as it were, return to the starting-point: on which day the Holy Spirit was sent, by whom we are led into the kingdom of heaven, and receive the inheritance, and are comforted; and are fed, and obtain mercy, and are purified, and are made peacemakers; and being thus perfect, we bear all troubles brought upon us from without for the sake of truth and righteousness.¹⁶⁰

Here, in perfection, is found the ability to look back, to see wisdom accomplished and to seek mercy in the awareness of one's limitations; it is to be wise and have humility, knowing that God is the source of all things.

Thus it is from the perspective of perfection that Theophilus lists the seven gifts, stating outright that the lessons he teaches have been learned only with the aid of the seven-fold grace of the Holy Spirit: "believe with a full faith, that your heart has been filled with the Spirit of God,"¹⁶¹ The passage is a retrospective one, and it is here that Theophilus explicitly refers to the structure of his book as a whole. Just as Augustine likens the eighth beatitude to Pentecost, and the descent of the Holy Spirit, Theophilus now lists the gifts of the Holy Spirit in descending order, as in Isaiah. The reversal emphasizes the cyclical quality of the approach to *Perfectio*, and implies how the lessons of the treatise begin again, when one becomes the teacher of someone else.

Reviewing the lessons of the treatise, and thus emphasizing that they have all built upon one another, Theophilus writes: "Animated, dearest son, by these supporting

¹⁶⁰ Augustine, *Sermon on the Mount*, 1.4, trans. Jepson, as ch. 2, note 68.

¹⁶¹ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 62.

virtues, you have ... in some measure, shown to beholders the paradise of God, glowing with varied flowers, verdant with herbs and foliage, and cherishing with crowns of varying merit the souls of the saints.”¹⁶² This third and last prologue, introducing the book devoted to the sacred arts, assumes the heart most full of the Holy Spirit. It is from this vantage point, that the temple of Solomon and the gifts of the Holy Spirit are to be completed, using the wisdom gained through the process of learning, and the perspective gained through arriving at *perfectio*:

Come now, my wise friend – in this life happy in the sight of God and man and happier in the life to come – by whose labour and zeal so many sacrifices are offered to God, be inspired henceforth to greater deeds of skill, and with the utmost exertion of your mind prepare to execute what is still lacking in the vessels of the House of God, without which the divine mysteries cannot continue.¹⁶³

While Theophilus’ allusion to David and Solomon were common justifications for the use of luxury art in the church,¹⁶⁴ here they are also the climax of the progressions giving structure to the entire treatise. References to the splendor of the house of God have not occurred before this point. The book has built up to them, from painting aligned with fear of the Lord, or humility, to light aligned with understanding, and finally to the embellishment of the house of God aligned with wisdom.

In a similar manner, the techniques of the third book are the most complex of the treatise. From the workshop and forge, tools and files, refining of silver and the silver chalice, to the refining of gold and the gold chalice, techniques become more complex.¹⁶⁵

¹⁶² Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 63.

¹⁶³ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 64.

¹⁶⁴ Rudolph, *The “Things of Greater Importance,”* as ch. 2, note 59: 64; Abbot Suger, *De consecratione*, in Panofsky, *Abbot Suger*, as ch. 2 note 46: 105; Celia Chazelle, “Matter, Spirit and Image in the *Libri Carolini*,” *Recherches Augustiniennes* 21 (1986)163-184; 169-170.

¹⁶⁵ Theophilus, Book III, ch. I, “The Construction of the Workshop;” Dodwell, *DDA*, as ch. 1 note 5: 64-5;

A description of iron tools opens the book, and is followed by instructions on beating out a chalice of silver; Theophilus then proceeds from the making of cast handles for the chalice to the nielloed ornament of its surface; later, the discussion of the creation of a censor of gold repoussé leads to the making of a more complicated cast censor.¹⁶⁶

Copper, which needs an additive like zinc to be malleable, and composite materials like brass are described in the second half of the book; these allow, eventually, discussions of the making of organs and bells.¹⁶⁷ Such metals and alloys are mixtures requiring knowledge of the chemistry of the materials and the processes of combining them.

Reading Technique in the Object: Seeing with Theophilus

On Diverse Arts emerges as a coherent statement; seen in the context of his greater agenda, Theophilus' descriptions of technique change how we view the work of art. By looking at three works of art that correspond with the three books of the treatise, we can demonstrate how the values articulated in the techniques of *On Diverse Arts* can become visible, in materiality, in form, in the style of the works. The image of the prophet and apostle in the church of St. Gereon in Cologne, painted in the last quarter of the eleventh century (Figure 14), for example, displays the link between technique visual clarity that promotes legibility, a concept fundamental to Theophilus' purposes. Fine white lines

ch. ii, "Seating Accomodation for the Workmen;" idem: 65; ch. iii, "The Work Furnace;" idem: 65-66; ch. iv, "Bellows;" idem: 66-67; ch. v, "Anvils;" idem: 67; ch. vi, "Hammers;" idem: 67; ch. xxiv, "Dividing up the Silver for the Work;" idem: 75-76; ch. xxv, "Casting Silver;" idem: 76; ch. xxvi, "Making the Smaller Chalice;" idem: 76-79; ch. xxvii, "The Large Chalice and its Mold;" idem: 79-80; ch. xxxiii, "Refining Gold;" idem: 84-85; ch. xxxiv, "The Same as Above;" idem: 85-86; ch. xxv, "Milling the Gold;" idem: 86-87; ch. xxxvi, "The Same in Another Way;" idem: 87-88; ch. xxxvii, "The Same as Above;" idem: 88-89; ch. xxxviii, "Coating and Gilding the Handles;" idem: 89-90.

¹⁶⁶ Ch. xxvi, "Making the Smaller Chalice;" Dodwell, *DDA*, as ch. 1, note 5: 76-79; ch. xxx, "Casting Handles for the Chalice;" idem: 82-83; ch. xxviii, "Niello;" idem: 80-81; ch. lx, "The Repoussé Censer;" idem: 111-112; ch. lxi, "The Cast Censer;" idem: 113-119.

¹⁶⁷ Ch. lxiii, "Copper;" Dodwell, *DDA*, as ch. 1, note 5: 120-121; ch. lxvi, "Making Brass;" idem: 124-125; ch. lxxxii, "Organs;" idem: 142-144; ch. lxxxv, "Founding Bells;" idem: 150-158.

create highlights on the face of the prophet; they are layered upon the flesh color below, just as Theophilus advises, and although the intensity of the color varies, there is no blending of color. The same technique is encountered in descriptions of painting the evangelist's drapery. Here the deep orange folds of the drapery form a sharp contrast to the solid white filled shapes that create the highlights on top of the figure's knee. Again, there is a sharp contrast between the colors used, and they are layered on top of another, with white set upon the medium tone, and dark orange lines drawn in to define the roundness of the leg. Intended to be seen from afar, the sharp contrasts of color create strongly defined forms. The effect of this technique is a sharp visual legibility.

Theophilus' clear instructions then, are directed toward a particular effect. They are not simply descriptions of a technique; rather, they define a valued characteristic of twelfth-century art, its capacity to communicate, and they describe how to achieve this end.

From Theophilus' instructions too, we begin to find ways of looking again at stained glass, a nascent medium in the twelfth century. It emerges as primarily a medium of light. We learn to see how the window might be read as a series of gradations of light, an image composed of numerous parts, varying in color. When we know how glass is made, we begin to see, for example, that the golden yellow and reddish color of the robes of figures in Suger's "agogical window" (Figure 19a), are tints achieved by different heating the glass for different durations – all panels might thus be seen as variations on the white of the faces. Theophilus' description of technique assumes that light itself is responsible for creating the overarching unity of a composite work, both visually – as the common medium generating all colors – and philosophically, as the vehicle through which the color and form is perceived. The individual window is a multiplicity that

emerges from a common source: radiant light. As with the painting, then, Theophilus' descriptions, if applied, embed a particular philosophy, an aesthetic, in the finished object; the recognition of techniques could and do inform the viewing experience.

The instructions in Theophilus' third book, with its focus on the materials and the functions of objects, bring the processes of transformation to the fore. This is particularly clear in his famous description of the making of a censer, a complex object of cast bronze, one which many scholars have noted, would have resembled the censer of Gozbertus, made around 1100, kept in the Cathedral treasury at Trier (Figure 15).¹⁶⁸ Knowledge of the way this complex object is made leads us to reflect on casting; with its architectural features evoking the heavenly city, and its Old Testament figures it is not an image but an object transformed from liquid to solid. Metal, particularly bronze, goes through striking visual changes as it is fashioned into an object, from a lustrous black ore it becomes molten metal. To be cast, molten metal is poured into a prefabricated mould; to minimize problematic air bubbles, the mould, in this case, would be oriented with the bottom of the censer cover at the top, so the liquid metal would flow down into the narrowest part of the censer cover first, and the wider part last. Accordingly, when finished and turned upright, the top of the censer tapers off in a conical shape; molded into a series of rising towers and figures, its smooth figures and turrets are thus endowed with an upward pull which culminates at the top in the figure of Solomon. It is as though the object's very ability to hold form is part of its significance, as much an aspect of its

¹⁶⁸ See Anton von Euw, "Zum Weihrauchfass des Gozbertus," in Legner, ed., *Ornamenta Ecclesiae*, as ch. 1, note 14: I, 478; Hiltrud Westermann-Angerhausen, "Zwei romanische Thuribula im Trierer Domschatz und Überlegungen zu Theophilus und dem Gozbert-Rauchfass," *Zeitschrift des Deutschen Vereins für Kunstwissenschaft* 42 / 2 (1988) 45-60; Clemens M. M. Bayer, "Zum Gozbertus-Rauchfass in der Trierer Domschatzkammer," in Franz J. Ronig, ed., *Schatzkunst Trier, Forschungen und Ergebnisse* (Trier, Speer-Verlag, 1991) 45-48.

meaning as the image of the Heavenly Jerusalem which it represents. The effect too, is echoed in the function of the object, as the rising smoke of the incense continues the vertical compositional effect of the work. Theophilus' instructions, then, focus on aspects of technique that, when contemplated, underscore a particular idea about an art object. Through knowledge of how an object is made, the image can be read as communicative device: the glass window becomes an embellishment of the medium of light, the liturgical object emerges as the transformation of precious material into the service of the mass.

Changing Pedagogy for the Advancing Student: From Mimesis to Invention

Thus far we have seen how *On Diverse Arts* is structured according to a narrative of spiritual ascent, so that, as the artist comes closer to wisdom, the techniques he learns become more complex, the materials more precious, and the function of the objects more sacred. Expanding on these parallel trajectories, we see how Theophilus' method of teaching changes as well, mirroring the techniques themselves. As the book progresses, Theophilus' instructions become increasingly abstract, more and more like guidelines, leaving room for creative application by an increasingly adept artisan.

In the first book, the instructions are quite strict. Painting is taught through concrete examples: the application of color for flesh, for shadows, and for highlights is described precisely. Chapter seven addresses "The Second Shadow Colour for Flesh":

Afterwards take the shadow colour for flesh which has been referred to above, and mix with it more green earth and burnt ochre so that it is a darker shade of the former colour. Then fill the middle space between the eyebrows and eyes, under the middle of the eyes, near the nose, between the mouth and chin, and on the down or beards of young men, on the half-palms towards the thumb, on the

feet above the smaller areas of relief, and on the faces of children and women right up to the temples.¹⁶⁹

In this first part of the book, since the student is a beginner, Theophilus describes where exactly to put the shadows; he hesitates to leave decisions about placement up to the artist. His language follows suit, as he uses imperative form of verbs such as “mix” (*misce*); to create colors for drapery, for instance, he instructs his reader to “mix dark blue with folium, or black and a little burnt ochre and fill in the drapery.”¹⁷⁰

The second book allows slightly more flexibility, but the instructions remain fairly precise. Theophilus, for example, writes:

If, in your figured windows, on the crosses and book or the decoration of draperies on the painted glass, you want to make gems of another colour, without using lead – for example, jacinths and emeralds – proceed in this way. When you have arranged in their places the cross-nimbus over the head of Christ in Majesty, or the Book, or the decoration of the borders of draperies – which in a painting are made from gold or orpiment – in windows you make these of clear yellow glass. When you have painted them in a workmanlike way, decide on the places where you want to set the stones.¹⁷¹

Here Theophilus leaves it up to the artist to decide whether to make gems and where to place them. He begins: “If... you want to make gems...” and goes on to note that they can be placed on the nimbus of Christ, the Book, or the borders of draperies. The openness of the possibilities is reflected in his language, as he often uses subjunctive, though in English translation it is only implied by the preceding “if.” A grammatically precise, if awkward, English translation would read “If ... you want[ed] ... [you could]

¹⁶⁹ Theophilus, Book I, chapter vii, “The Second Shadow Colour for Flesh;” Dodwell, *DDA*, as ch. 1 note 5: 7.

¹⁷⁰ The chapter on mixing colors for draperies is a series of instructions using this verb: *Misce menesc cum folio sive cum nigro.... Misce purum viride cum ogra...* Theophilus, Book I, ch. xiv, “Mixing Colours for Draperies on a Panelled Ceiling;” Dodwell, *DDA*, as ch. 1 note 5: 10.

¹⁷¹ Theophilus, Book II, ch. xxviii, “Setting Gems in Painted Glass;” Dodwell, *DDA*, as ch. 1 note 5: 57.

proceed in this way. When you [had] arranged in their places the crosses ... in windows [these would be made] from clear yellow glass.”¹⁷² (*Si voveris ... hoc modo agas. Cum feceris in suis locis cruces ... fiant ex croceo vitro claro*).

In the last book Theophilus seems to accord the artist significant agency of his own, allowing him to decide, for example, what objects to make or how to ornament them. Although the chalice is a necessary object for the mass, Theophilus makes it clear that many things might be made of purified metal: “If when this [silver] is purified, you want to make a chalice, divide the silver into two equal parts and keep one half for making the foot and the paten.”¹⁷³ The decorative program of the chalice is similarly left to the choice of the artisan, though in instructions for a certain technique, specific patterns are specified:

If you want to enrich these ribs with niello, arrange for the silver to be thicker, and so proceed that one rib is gilded and the other nielloed. This should always be done in pairs. When you have beaten them, file them smoothly and scrape them. On those which you want to niello, draw Greek foliage and engrave with a gold line...¹⁷⁴

Such openness is nicely evident in the description of enamel. Here, Theophilus explains the technique of bending strips of gold for cloisonné and lists the options possible for filling the space with design: “using the same measure and rule, you cut cloisons of extremely thin gold. You bend them round with fine tweezers, and form whatever designs you want to make in the enamels, either circles, or scrolls, or flowers, or birds, or animals or figures.”¹⁷⁵

¹⁷² Theophilus, Book II, ch. xxviii, “Setting Gems in Painted Glass;” Dodwell, *DDA*, as ch. 1 note 5: 57.

¹⁷³ Theophilus, Book III, ch. xxiv, “Dividing up the Silver for the Work;” Dodwell, *DDA*, as ch. 1 note 5: 75.

¹⁷⁴ Theophilus, Book III, ch. xxvii, “The Large Chalice and its Mould;” Dodwell, *DDA*, as ch. 1 note 5: 80.

¹⁷⁵ Theophilus, III, liii, Dodwell, *DDA*, as ch. 1 note 5: 105. See also his instructions for the making a

The increasing amount of flexibility allowed in the instructions is a corollary of the increasing complexity of the techniques described. Techniques are cumulative, so it is assumed that the artist has mastered the arts of painting before undertaking to paint on glass, or, as in the case of enamel, to paint *with* glass. It is understood that complex objects of metal, enamel, ivory, and gemstones, such as Roger of Helmarshausen's cover for a gospel book (Figure 9), require a good deal of technical knowledge. The artisan had to know the techniques of painting and glass to prepare the ornamental enamel of the borders, the technique of repoussé for the figures of the Evangelists, and how to solder, so as to mount the filigree along the sides.¹⁷⁶

This progression from the concrete to the abstract, as we have seen, was a strategy used by contemporary thinkers on monastic learning. Hugh of St. Victor explained the process of analyzing a text as a cumulative system;” the method of expounding a text,” he wrote, “consists in analysis. Every analysis begins from things which are finite, or defined, and proceeds in the direction of things which are infinite, or undefined... teaching, moreover, begins with those things which are better known and, by acquainting us with these, works its way to matters which lie hidden.”¹⁷⁷ Hugh's exegete moves from the literal sense to the higher senses, to those requiring trained intelligence to uncover.

repoussé censer, where options for the workmanship of the repousse censer lead into the “more precious craftsmanship” and sophisticated program of the cast censer, with the heavenly city of Jerusalem.

Theophilus, III, ch. ix, “The Repoussé Censer;” idem: 112.

¹⁷⁶ For the works of Roger of Helmarshausen, generally, see Peter Lasko, “Roger of Helmarshausen” in *Ars Sacra 800-1200*, 2nd ed. (New Haven: Yale University Press, 1994); and Lasko, “Roger of Helmarshausen, Author and Craftsman” as ch. i, note 12. For the book cover in particular, see Peter Lasko, “Anthropomorphic Evangelist Symbols: Lower Saxony, Roger of Helmarshausen, and Insular Iconographic Tradition,” *England and the Continent in the Middle Ages: Studies in Memory of Andrew Martindale*. Harlaxton Medieval Studies, ed. J. Mitchell (Stamford: Shaun Tyas, 2000) 15-27; and Jörg Baumgarten, “Der Buchdeckel des Roger von Helmarshausen, versuch einer ikonographischen Bestimmung,” in Ronig, ed., *Schatzkunst Trier*, as ch. 2, note 168: 35-44.

¹⁷⁷ Hugh of St. Victor, *Didascalicon*, Book III, Chapter 9: “Concerning the Method of Expounding a Text;” Taylor, as ch. 2, note 16: 92.

The way in which the student is taught, therefore, changes just as the student changes. It is a trajectory from the mimetic, or literal, to the inventive, from the concrete to the abstract that parallels the progressively complex functions, materials, and techniques of the treatise. As the ornamentation of walls with pigment gives way to the installation of glass and the fashioning of objects, it is as though the reader moves from the physical world of pigments, bodies, and drapery to the luminous world of colored light, and lastly, to the divine world of paradisaical gold, filled with censers, chalices, and objects of the divine service.

Theophilus as a Pedagogue

Theophilus' pedagogical theory – his ideas of how, and why, one learns the practice of art, is embedded in the larger trajectories and narrative of *On Diverse Arts*. Lying latent, it is seen once recovered to follow the principles of contemporary thought on monastic learning; the prologues, in turn, can be seen to follow patterns characteristic of literary prologues. The overarching narrative which guides the theory of ascent, of learning, of spirit, of craft knowledge, also suggests that for Theophilus, the strategy of learning and the reasons for learning are as important, if not more important, than the content to be absorbed.

The numerous progressions upon which *On Diverse Arts* is built show that for Theophilus, learning is a cumulative process. According to his instructions, images, glass windows, and objects are constructed in an additive manner. Paint is layered one color on top of the next. The skin of the unidentified prophet in the late eleventh-century wall painting at St. Gereon in Cologne is built from a basic color, to which are added layers of

highlights and shadows, while glass is an image assembled of component pieces and the multimedia objects are created from metals, gems, solder, and gilding. The additive approach is no less apparent in the structure of the text as a whole. The series of steps in both prologues and instructions are cumulative: the prologues tell of a series of virtues that build upon one another, progressing from humility to wisdom, and the instructions describe mixtures, techniques, and processes that progress from simple pigments to composite metals, from concrete tasks to abstract guidelines. Throughout, each new step requires mastery of the previous ones.

The idea of learning as a cumulative process is central to twelfth-century pedagogical thought. Hugh of St. Victor explains a similar system of cumulative learning in the *Didascalicon*, likening the process of understanding scripture to the building of a stone wall. Hugh argues for the importance of grasping the literal sense of words; for him the allegorical and spiritual meanings of scripture must be built as a “superstructure” upon the foundational wall of clear comprehension of the literal sense:

This then, my student, is what we propose to you. This field of your labor, well cultivated by your plough, will bear you a manifold harvest. All things were brought forth in order: move along in order yourself. Following the shadow, one comes to the body: learn the figure, and you will come to the truth. ... Just as you see that every building lacking a foundation cannot stand firm, so also is it in learning. The foundation and principle of sacred learning, however, is history, from which, like honey from the honeycomb, the truth of allegory is extracted. As you are about to build, therefore, ‘lay first the foundation of history; next by pursuing ‘typical’ meaning, build up a structure in your mind to be a fortress of faith. Last of all, however, through the loveliness of morality, paint the structure over as with the most beautiful of colors.¹⁷⁸

¹⁷⁸ Hugh of St. Victor, *Didascalicon*, VI; Taylor, as ch. 2, note 16.

Hugh's argument suggests a layering of information, a layering of knowledge that is cumulative: the bricks of the Old Testament and of knowledge of the fathers are laid and polished, and upon them is built, stone by stone, the capacity to understand scripture.¹⁷⁹ To extend his metaphor, without a solid foundation, there would be no ground to support the finished "colors" represented by the moral sense. For both Theophilus and Hugh of St. Victor, pedagogical order is a progress from the simple to the complex: the properties of the simplest material need to be explained and clarified just as the foundation of literal interpretation and historical knowledge needs to be established at the outset. There is a clear distinction between chronological order and pedagogical order: one best learned things step by step.¹⁸⁰

On Diverse Arts teaches artisanal practice through communication of a set of clearly defined elements – both visual and technical – that build upon each other, so that knowledge expands exponentially. This cumulative mode is an analytic system not unlike the structure of grammatical study in the early twelfth century, which relied heavily on the classic school text of Donatus, *Ars grammatica*, written in the mid-fourth century. Here language is first divided into units of speech, and units of speech are then put together to form clauses and, finally, rhetorical figures.¹⁸¹ Spiritual goals were a part of

¹⁷⁹ Hugh of St. Victor, *Didascalicon* VI, ch. 4, "Concerning Allegory," Taylor, as ch. 2 note 16: 140. For a discussion of Hugh's building metaphor see Eric Nicolai, *Hermeneutical Principles in the Didascalicon of Hugh of St. Victor* (Rome: Pontificium Aethenaeum Sanctae Crucis, 1996) 169-170. For a close study of an example of Hugh's exegetical work, see Grover Zinn, "Hugh of St. Victor and the Ark of Noah: A New Look," *Church History* 40 / 3 (Sep. 1971) 261-272.

¹⁸⁰ Hugh of St. Victor, *Didascalicon*, VI, ch. 4, "Concerning Allegory," Taylor, as ch. 2, note 16: 140; and VI, ch. 3, "Concerning History;" idem: 135-139; V, ch. 1, "Concerning Properties of Sacred Scripture and the Manner of Reading it;" idem: 120; and V, ch. 2 "Concerning the Threefold Understanding;" idem: 120-121. See also Ivan Illich, *In the Vineyard of the Text: A Commentary to Hugh's Didascalicon* (Chicago: University of Chicago Press, 1993) 30-33.

¹⁸¹ Donatus, *Ars Grammatica*, translated in Wayland Johnson Chase, *The Ars Minor of Donatus, for one thousand years the leading textbook of grammar translated from the latin, with introductory sketch*, University of Wisconsin Studies in the Social Sciences and History, 11 (Madison: University of Wisconsin,

this pedagogical system; according to Jean Leclercq, grammar was a foundation of monastic learning and spiritual devotion because it aided in the understanding of scripture; when combined with the compunction of desire for God, it led to wisdom.¹⁸² It is highly probable that Theophilus, whose Latin demonstrates a level of sophistication, had an education based on Donatus' *Ars grammatica* or on similar works. Whatever his training, his tract is usefully compared to the structure of grammatical teaching in the period. Theophilus organizes information according to a similar analytic system, one based the assumption that artisanal knowledge is the sum of its parts, predicated on the understanding of its elements and of their possible arrangements. The student learns each element of technique, the mixing of pigments or dyeing of glass, for example, and step by step, learns to combine them so as to produce an object.

Theophilus' project may even be said to align with the pedagogical classifications of prescriptive rhetoric. Prescriptive rhetoric, as defined by James Murphy, draws upon past experience to set out "injunctions" for the ordering and manipulation of a text for a certain purpose; it "distills the precepts born of experience and observation and transmits these injunctions for discovery, order, plan, and working."¹⁸³ Thus while Theophilus describes techniques as though they are a grammar, an analytical and descriptive system,

1926). For the place of Donatus in the schools, see William H. Purcell, *Ars Poetriae, Rhetorical and Grammatical Invention at the Margin of Literacy* (Columbia, SC: University of South Carolina, 1996): 22-31. For grammatical commentaries and the setting out of rules for operation, what James J. Murphy calls a "prescriptive grammar" and connection between this line of thinking and the *Didascalicon* of Hugh of St. Victor, see Murphy, *Rhetoric in the Middle Ages, A History of the Rhetorical Theory from Saint Augustine to the Renaissance* (Tempe, Arizona : Arizona Center for Medieval and Renaissance Studies, 2001) 140-142; and James J. Murphy, *Latin Rhetoric and Education in the Middle Ages and Renaissance* (Aldershot: Ashgate/Variorum, 2005).

¹⁸² Jean Leclercq, *The Love of Learning and the Desire for God: A Study of Monastic Culture*, Catherine Misrahi, trans. (New York: Fordham University Press, 1962) 6-7. For the relation between monastic spirituality and the study of grammar, see also Suzanne Fleischman, "Philology, Linguistics, and the Discourse of the Medieval Text," as ch. 1, note 125.

¹⁸³ Murphy, *Rhetoric in the Middle Ages*, as ch. 2, note 181: 135.

with defined parts and structures, the text also functions prescriptively, as the instructions become more and more like guidelines. Aimed toward the production of objects in the future, either in the ideal or in actuality, *On Diverse Arts* teaches how an artist might use what he has learned to fulfill a certain purpose.

A close look at how Theophilus' prologues operate according to paradigms of many twelfth-century literary prologues sheds additional light on his pedagogical theory. As Alistair Minnis has shown, literary prologues of the period follow a specific pattern: they establish the authority of the author and explain the intent, purpose, and usefulness of the text.¹⁸⁴ Theophilus' prologues follow this scheme rather closely. Accordingly, in the opening of the first prologue Theophilus introduces himself as the author and states his religious attitude: "Theophilus – humble priest...", identifies his audience, as those "who are willing to avoid and spurn idleness," and states his good and pious intentions, as he "wishes to all... the recompense of a heavenly reward."¹⁸⁵ He begins with a statement of intent; for him, objects are offerings to God and the purpose of learning to make objects is to embellish the church and furnish the instruments for the mass. It is the artist, "by whose labour and zeal so many sacrifices are offered to God" and who may "with the utmost exertion of [his] mind prepare to execute what is still lacking in the

¹⁸⁴ A. J. Minnis, *Medieval Theory of Authorship*, as ch. 2, note 14: esp. 19-25. The three basic types of literary prologue, of which this is type "C", thought to have come from Boethius, was established by Richard W. Hunt. These categories are generally called intention, order, manner, parts and utility are often used in what Minnis and Hunt have designated prologue category "C." Three other categories that were usually included in prologues, were author, title, and branch of learning. While these categories constitute a general type, there are variations in the prologues across texts, in both the order in which the categories are described and the particular categories chosen. The changing concerns of prologues through the twelfth and into the thirteenth century, and in the development of scholasticism, is addressed by Minnis. See especially ch. 1, "Academic Prologues to 'Auctores';" idem: 9-39; and ch. 2: "Prologues to Scriptural 'Auctores';" idem 40-69.

¹⁸⁵ Theophilus, Prologue, Book I; Dodwell, *DDA*, as ch. 1 note 5: 1. For a study of Theophilus' characteristic openness in terms of his intent to share knowledge, see Long, *Openness, Secrecy, Authorship*, as ch. 1 note 9.

vessels of the House of God.”¹⁸⁶ Theophilus then closes the prologue with an expression of his ultimate aim: “to increase the honour and glory of His name.” His text is not written for pride’s sake, but for God’s.¹⁸⁷

These statements of religious intent and purpose are a fundamental part of monastic pedagogy. According to Mary Carruthers, *intentio* implies a mental direction; it is a spiritual and emotional attitude: “This “intention” is not a matter of doctrinal or philosophical content, of definitions and classifications. Rather, it bears an analogy to the rhetorical notion of *benevolentia*, the attitude of good will and trust which an orator hoped to evoke in his audience by first approaching them in that spirit.”¹⁸⁸ It is the state of mind under which a given task is to be performed. When both learning and art-making are directed to serve the glory of God, the object therefore is endowed with a moral aspect, an ethical dimension.¹⁸⁹ Spiritual intent mitigates what Jean Leclercq has shown was the threat of learning in the monastery, where knowledge could lead to sins of pride or vanity.¹⁹⁰ Theophilus’ prologues, by structuring and framing the narrative of *On Diverse Arts*, thus serve a very specific pedagogical function, asserting his religious intent and dispelling the threat of knowledge that is only vanity.

Theophilus emphasizes utility in both his prologues and his instructions. This emphasis too follows the pattern of twelfth-century literary prologues. Intent is the mental orientation, and usefulness is the physical outcome. For Theophilus, knowledge of

¹⁸⁶ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 64.

¹⁸⁷ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 4.

¹⁸⁸ Mary Carruthers, *The Craft of Thought, Meditation, Rhetoric, and the Making of Images, 400-1200* (Cambridge: Cambridge University Press, 1998) 15.

¹⁸⁹ The idea of an ethical dimension of art has been discussed by Oleg Grabar, particularly in terms of ornament in the Islamic context. See Grabar, “Die Ethische Dimension des Ornaments,” *Islamic Art and Beyond, Constructing the Study of Islamic Art, vol. III* (Aldershot: Ashgate Variorum, Collected Studies Series, 2006) 61-79.

¹⁹⁰ Jean Leclercq, *The Love of Learning and the Desire for God*, as ch. 2, note 182; see also A.J. Minnis, *Medieval Theory of Authorship*, as ch. 2, note 14.

art is useful, because it aids the ascent toward virtue, and because it enables creation of objects necessary for worship. This pattern is evident in the instructions, when, for example, he describes the making of a strainer:

The bottom of the small basin at the end should be perforated in the middle with very fine holes covering a circular area of two fingers. Through these should be strained the wine and water which is to be placed in the chalice, and by which the sacrament of our Lord's Blood is performed.¹⁹¹

Theophilus connects the performance of a task to its function by taking the time to describe the reason for the perforation of the basin. This is the acknowledgement of imperative of *utilitas*, which echoes the thrust of the prologue, where he explicitly defines the liturgical objects that his instructions will teach others how to make.

Utilitas can be defined as usefulness, but it is a concept that also connoted profit, benefit, or advantage.¹⁹² As Hugh of St. Victor explains it, while no learning is superfluous, its value is connected to its usefulness; it must lead to the service of God.¹⁹³

A theme throughout the *Didascalicon* is the restoration of man through the ordering and learning of knowledge, and a sermon, which has at times been attributed to Hugh of St.

Victor, explicitly connects learning to medicine as a remedy for the fall.¹⁹⁴ For Rupert of Deutz, too, the purpose of writing was to seek “useful” interpretations of scripture.¹⁹⁵ For

¹⁹¹ Theophilus, Book III, ch. lvii, “The Strainer;” Dodwell, *DDA*, as ch. 1 note 5: 108-109.

¹⁹² Charles du Fresne Du Cange, *Glossarium mediæ et infimæ latinitatis conditum a Carolo du Fresne, domino Du Cange, auctum a monachis ordinis S. Benedicti, cum supplementis integris D. P. Carpenterii, Adelungii, aliorum, suisque digessit G. A. L. Henschel; sequuntur Glossarium gallicum, Tabulæ, Indices auctorum et rerum, dissertationes* (Niort: Favre, 1884-1887): s.v. “*utilitates*,” VI, 895.

¹⁹³ Hugh of St. Victor, *Didascalicon* I, ch. 4, “What matters pertain to Philosophy,” Taylor, as ch. 2 note 16: 50-51; I, ch. 11, “Concerning the origin of Logic,” Taylor, as ch. 2 note 16: 59-60; V, ch. 10, “Concerning the three types of students,” Taylor, as ch. 2 note 16: 133-134; and VI, ch. 4, “Concerning Allegory,” Taylor, as ch. 2 note 16: 139-144; also Illich, *In the Vineyard of the Text*, as ch. 2, note 180: 64.

¹⁹⁴ Hugh of St. Victor (?), *Sermo XI*, PL 177, 922-924; Taylor, as ch. 2 note 16: 12-13; and Illich, *In the Vineyard of the Text*, as ch. 2, note, 180: 10, 11.

¹⁹⁵ John van Engen, *Rupert of Deutz*, as ch. 2, note 18, 71.

him the value of the sacred writing itself was, in addition to its divinity, its “usefulness, because it leads to the eternal.”¹⁹⁶

Just as we could “read” technique in objects and observe the results of steps in outline processes, we can begin to consider the ways that this emphasis on intent and utility might translate into visual characteristics. The most important visual aspect of the strainer, for example, is then the fact that it has holes, and that it has holes sufficient to function well. These are then visual characteristics that provide the evidence that it is a useful, and not a vain, object. Similarly, we might develop criteria for evaluating a cruet, according to Theophilus’ instructions: “the body of the cruet should be fashioned much wider and its neck should be narrowed on a long, thin anvil ... as it begins to take shape, this cruet is filled with wax and lightly beaten with a medium iron hammer so that the roundness of the body and the profile of the neck may be more elegantly and evenly formed.”¹⁹⁷ The ethical can be seen in the concrete.

The Triumph of the Church: An Eschatological Trajectory

A last trajectory brings the many strands of the text together, toward a final purpose. In a final progression, the ascension toward wisdom that emerges in the three books can be seen as an eschatological trajectory, a history of the church and salvation. The first prologue describes the fall of man and the possibilities for his restoration through the coming of Christ: “Human skill sustained this purpose and, in its various activities, pursued profit and pleasure, and finally, with the passage of time transmitted it to the predestined age of Christian religion. So, it has come about that, what God intended to

¹⁹⁶ Rupert of Deutz, *De operibus spiritus sancti*, Book VII, cap. 11; in *De sancta trinitate*, CCCM 24, as ch. 2, note 18: 2051.

¹⁹⁷ Theophilus, Book III, ch. xviii, “The Cruet;” Dodwell, *DDA*, as ch. 1 note 5: 109.

create for the praise and glory of His name, a people devoted to God has restored to his worship.”¹⁹⁸ The second book describes the pious man and quotes Paul: “God is mindful of the humble and quiet man, the man working in silence in the name of the Lord, obedient to the precept of Blessed Paul the Apostle: ‘but rather let him labour, working with his hands the thing which is good that he may have to give to him that needeth.’”¹⁹⁹ With Paul as teacher here, Theophilus evokes the Christian mode of life and the work of the Church. Lastly, themes of paradise, wisdom, and the heavenly temple of Solomon in the third prologue suggest the last age of history and the triumph of the Church. Here the gift of wisdom is like the gift of grace through Christ: the physical embellishment of the house of God looks toward the embellishment of the celestial court. The narrative of the fall of man and the dawn of the Christian age in the first prologue leads to the quotation of St. Paul in the second and, finally, to the embellishment of the temple of Solomon, the prototype of the Heavenly Jerusalem, in the third.

This trajectory embeds the history of the church within a narrative of learning, of spiritual ascent, and of embellishment of the church. It makes art making, and the furnishing of the house of God, a part of a larger Christian trajectory, so that the making of sacred art in some sense pushes history forward toward the end of time and the coming of Christ.

Such eschatological interpretations of daily acts were not uncommon in monastic texts. Monastic chronicles, such as that of St. Pantaleon in Cologne, open the history of their monastery not with their founder but with the beginning of the world, and then they

¹⁹⁸ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1-2.

¹⁹⁹ Theophilus, Prologue II; Dodwell, *DDA*, as ch. 1 note 5: 36. The quotation is from Paul’s letter to the Ephesians, 4:28, translated in Douay-Rheims as: “He that stole, let him now steal no more; but rather let him labour, working with his hands the thing which is good, that he may have something to give to him that suffereth need.”

trace the history of Christianity to the foundation and ongoing life of the monastery.²⁰⁰ Within this broad history, the acts of individual abbots and monks become a part of a larger salvation history.²⁰¹ As Dominique Iogna-Pratt has shown, monasteries such as Cluny conceived of themselves as microcosms of the history of the world, miniature celestial Jerusalems, whose work, even so, extended beyond their walls, so that all of the world would look toward the end of time and the triumph of Christianity.²⁰² Seen in this light, the multiple trajectories of *On Diverse Arts* emerge as acts moving toward the praise of God, the celebration of the mass, and the development of virtue. With pedagogical and exegetical writings of the early twelfth century as a guide, learning and knowledge, leading as they do toward spiritual ascent, are redefined by Theophilus as applicable to the physical practice of art itself. The intent of his tract is manifest in the actions demanded in the instructions, and in the virtues described the prologues. How the visual results of these techniques could be operate in the realm of memory, and what role the artist played in that process, will be addressed in the next chapters.

²⁰⁰ Georg Waitz, ed., *Chronica regia coloniensis (Annales maximi colonienses) cum continuationibus in monasterio S. Pantaleonis scriptis, aliisque historiae coloniensis monumentis, partim ex Monumentis Germaniae historicis recusa*, *Scriptore rerum germanicarum in usum scholarum*, editi 18 (Hannover: impensis bibliopolii Hahniani, 1880).

²⁰¹ The relation between outright eschatological chronicles and more worldly narratives has been explored by Karl F. Morrison, in a study on Otto of Freising; Morrison tries to reconcile the Otto's eschatological *Chronicle* with the more mundane *Deeds of Frederick Barbarossa*, arguing that for Otto the two form a hermeneutic circle, with one always informing the other: Karl F. Morrison, "Otto of Freising's Quest for the Hermeneutic Circle," *Speculum* 55 / 2 (Apr. 1980) 207-236; for a study of other sources using eschatological frames see Ray Petry, "Three Medieval Chroniclers: Monastic Historiography and Biblical Eschatology in Hugh of St. Victor, Otto of Freising, and Odericus Vitalis," *Church History* 34 / 3 (1965) 282-293; and for a theological and art historical approach to the subject, see Gerhart Ladner, *Ad imaginem Dei: The Image of Man in mediaeval art* (Latrobe, PA: Archabbey Press, 1965); and for references to the heavenly Jerusalem that simultaneously reference communal and individual salvation histories, see Thomas Raff, "'Materia superat opus': Materialien als Bedeutungsträger bei mittelalterlichen Kunstwerken," in Beck and Hengevoss-Dürkop, eds., *Studien zur Geschichte der europäischen Skulptur*, as ch. 1, note 18: 17-28.

²⁰² Dominique Iogna-Prat, *Ordonner et Exclure: Cluny et la société chrétienne face à l'hérésie, au judaïsme et à l'islam, 100-1150* (Paris, Aubier, 1998).

Chapter Three

The Vienna Manuscript and the Remembrance of an Artist

The tantalizing inscription inserted in the oldest surviving copy of *On Diverse Arts*, Vienna 2527, preserves the memory of a certain “Rogerus” by identifying him as the author hidden behind the pseudonym Theophilus (Figure 2). Since the early twentieth century, it has been widely held that the actual writer of the tract is one Roger of Helmarshausen, an artisan named in a document as having made an altar and possibly a cross for Henry of Werl, the bishop of Paderborn. Complicating the story, as will be discussed below, is the fact that the document in question postdates the twelfth century: it may be a forgery or may be a copy of an earlier charter (Figure 29). One remarkable feature of the Vienna manuscript that has not yet been drawn into discussion and that can help to focus our study is the appearance of marginal drawings. These are fragments of ornamental designs, characteristic of the broader circle and workshop of Roger.

Taken together, the inscription and the drawings suggest that one function of this manuscript of *On Diverse Arts* was to carry the memory of an artist. The following analysis will be based on the Vienna manuscript, on the Paderborn document, and on objects associated with Roger. It will take into account the esteem in which a given artisan was held and seek to go beyond the usual question of whether or not the

attribution is trustworthy; as Patrick Geary has shown, a memory itself could carry enough weight to create, or supersede, a real or imagined event.¹ We will look instead for the ways in which the memory of a twelfth-century artist functioned in the social and visual network of cathedrals and abbeys, of prelates and patrons.

The Vienna Manuscript: Memory of a Name and Memory of a Style

The Vienna manuscript is quite different in appearance and suggests a different use. This manuscript may have been a workshop copy; it is less than half the size of the Wolfenbüttel manuscript (126 x 74 mm). The text is written in a single column on reused parchment, with all three of its prologues gathered at the front of the volume, as though placed out of the way. Containing colored ink marks and fragments of sketches, the manuscript bears signs of use. The manuscript is particularly prized because of the inscription identifying its author Theophilus as a certain “Rogerus,” thus connecting the pseudonym to a known authority -- long considered Roger of Helmarshausen. The inscription runs for a full line above the first line of text, on the first folio, where Theophilus introduces himself as the humble servant of God. Written in slightly larger letters, with wider spacing and in simpler letters, the inscription reads as a title and attribution: “Here begins the prologue of the first book of Theophilus, who is Roger, on the diverse arts” (*Incipit prologus libri primi Theophili qui et Rogerus de diversis artibus*) (Figure 30).²

¹ Patrick Geary has done much work on the subject of medieval memory, constructions of memories and histories, and how these memories serve a given community; see Geary, *Phantoms of Remembrance, memory and oblivion at the end of the first millennium* (Princeton: Princeton University Press, 1994) and Geary, *Furta sacra: thefts of relics in the central Middle Ages* (Princeton, NJ: Princeton University Press, 1990).

² *Incipit prologus libri primi Theophili, qui et Rogerus, de diversis artibus*, Vienna, Österreichische

The fact that a scribe chose to record the identity of the man behind Theophilus suggests that for this copyist or for the institution behind the copying, the name and person of Roger carried significant value. The inscription is written in the hand of the rubricator – a figure who supplied rubrics throughout the text, titling the books with numbers one, two or three, titling the chapters, and writing the table of contents. It is one of only two hands in the Vienna manuscript. Although written in a slightly more angular script, and clearly added later since the line extends into the right margin, the inscription is roughly contemporary with the rest of the text. The mysterious persona of “Theophilus, who is Roger,” has generated much scholarly interest. And while, on balance, it seems likely that Roger is Roger of Helmarshausen, it is not certain.

The Vienna manuscript of *De diversis artibus* was bound alone, copied as a single entity. In this way too it differs from the Wolfenbüttel manuscript, with its elegant eleventh-century copy of Vitruvius’ *De architectura*, as is visible in Figure 1a and 1b. In fact, the manuscript with Roger’s name seems likely to have been used in or intended for a workplace, and is much unlike the expensive Wolfenbüttel manuscript, conceived as a compendium of learned texts on artistic practice, and which seems likely to have been made for a library.

The arrangement of the text in this manuscript is peculiar, as the prologues are all gathered together at the front. All three prologues are contained in the first quire, and they are spread across the bifolios, so it becomes clear that they were not simply inserted or rearranged at a later time. There are two inserted folios at the end of the quire, but these do not seem to be later additions either; they contain the capitula and incipit of Book one and follow without a break in the text. The prologues then, were certainly

Nationalbibliothek, Cod. 2527, fol. 1r.

written as a single set and were placed at the start of the treatise from the beginning. Just why this happened cannot be ascertained, but by placing all the prologues before rather than within the text, the copyist highlighted precisely that which makes *On Diverse Arts* distinct. The arrangement in the Vienna manuscript highlights the prologues and allows them to be read continuously; the narrative of the gifts here emerges quite clearly.³ It also suggests that they are texts quite different in kind from the instructions.

The Vienna manuscript was not a luxury book, but it was not haphazardly made either. Its parchment is of a varying grade, and reused sheets of parchment are included in the quires. Some bifolios are very thin, some are very thick, and the variation is spread across the volume, so that given quires sometimes contain different grades of parchment. The difference in quality of the parchment is in stark contrast to the consistency in the Wolfenbüttel manuscript, where the same finely polished, thin, and fine parchment is encountered throughout. Three bifolios and one single folio in the Vienna manuscript are written on the reused parchment taken from a ninth-century liturgical manuscript.⁴ The liturgical text, however, is only visible at the edge of one page: the folio has been well-scraped in preparation for the new text. These folia are distributed throughout the volume, in the first, ninth, and eleventh quires, and only one folio, in the last quire, is an inserted sheet. The use of various grades of parchment, then, was not an emergency measure, nor was it a secondary development. While not an expensive manuscript, the Vienna manuscript nevertheless seems to have been very carefully assembled, with attention and for a purpose.

³ Much work has been done on this topic including Stephen Nichols and Siegfried Wenzel, eds., *The Whole Book*, as ch. 1, note 103; and Richard H. Rouse and Mary A. Rouse, “*Ordinatio* and *Compilatio* Revisited,” *Ad Litteram, authoritative texts and their medieval readers*, ed. Mark Jordan and Kent Emery (Notre Dame: University of Notre Dame Press, 1992) 113-134.

⁴ Dodwell, *DDA*, as ch. 1 note 5: lix.

Rearranged for convenience, made with care, if inexpensively, the book may have done service in a workshop. Though it shows no traces of workshop debris, still the first few folios are darkened with dirt and oil, marking the book as one that was often consulted. Moreover, it seems not to have been bound for library use, but kept as a pamphlet. The first and last folios (fol. 1r and 117v) of the volume are especially dirty, and there is substantial damage to the inner corner of folio 1r, suggesting the text, at least for a time, had no outer binding (Figure 2). The current binding of the volume dates to the seventeenth century and hence was probably rebound by Rottendorff, who owned the manuscript in the later seventeenth century and whose name appears on the opening folio, but the text seems always to have been bound alone.

Precious evidence of one reader's interest emerges in the form of a small marginal drawing. In the left margin of folio 18v a gloved hand is drawn. The hand points to a line in chapter seventeen of Book one, "The panels of altars and doors and casein glue," which describes bathing cheese in cold water in preparation for the making of glue:

Soft cheese is cut up into small pieces and washed in warm water with a pestle and mortar until the water, which you have poured on several times, comes out unclouded. Then this cheese is thinned out by hand and placed in cold water until it becomes hard.⁵

That this process should be singled out suggests that at least one reader referred to one of the instructions.⁶ No such marks are to be found in the fine Wolfenbüttel manuscript; its

⁵ *Deinde idem caseus attenuatus manu mittatur in frigida aqua donec indurescat*, Theophilus, Book I, ch. xvii, "The Panels of Altars and Doors and Casein Glue;" Dodwell, *DDA*, as ch. 1 note 5: 16.

⁶ The step highlighted is indeed a crucial element of the process: without the cold bath, the cheese will not harden. Theophilus, Book I, ch. xvii, "The Panels of Altars and Doors and Casein Glue;" Dodwell, *DDA*, as ch. 1 note 5: 16.

margins are broad and clean (Figure 1). And even in the early thirteenth-century Harley manuscript, four pointing hands found in the margins were all inserted in the prologues.⁷

The Vienna manuscript is the oldest surviving copy of *On Diverse Arts*, and was probably copied some twenty years after the text was composed, yet it represents a separate line of transmission from all the other pre-modern copies of the text. The variations are small, but a few of them are possibly deliberate and seem to be adjustments made to buttress the authority of the text. At the close of the second prologue, Theophilus describes his own process of learning the art of glassmaking. In the Wolfenbüttel manuscript and most other manuscripts, this passage is written as *quod artificium, sicut visu et auditu didici; studio tuo indagare curavi*: “This art, as I have learned from what I have seen and heard, I have endeavored to unravel for your use.” The Vienna manuscript, however, does not say *visu*, or seeing, but *usu*, or using or experiencing: *quod artificium, sicut usu et auditu didici*... “This art, as I have learned from what I have experienced and heard, I have endeavored to unravel for your use.”⁸ Thus here Theophilus’ claim is that he has used these techniques, while in the Wolfenbüttel manuscript he states only that he has *seen* them used. Neither manuscript is an autograph, though both are probably only one or two generations removed from the presumed “original.”⁹ The reading in the Vienna manuscript is an oddity: most curiously, the only other manuscript containing this variation is the seventeenth-century copy of the Wolfenbüttel text now in Vienna that

⁷ British Library, Harley 3915, fols. 20r, 20v, 36r, 36v.

⁸ Theophilus, Prologue II. Vienna, Österreichische Nationalbibliothek, Cod. 2527, fol. 5r. Translation by Dodwell, *DDA*, as ch. 1 note 5: 37.

⁹ Suggested by Degering, “Theophilus qui et Rogerus;” as ch. 1, note 12: 254-55; Bernhard Bischoff, “Die Überlieferung des Theophilus-Rugerus,” as ch. 2, note 2: 177. Also Dodwell, *DDA*, as ch. 1 note 5: lx-lxiii.

contains a title page naming Roger.¹⁰ The variant appears to have been purposeful.¹¹ The change of wording in the Vienna manuscript, if not a copyist's error, may offer further evidence of an effort to personalize the text, to claim its unique authority as a source.¹²

The Vienna manuscript is written in an archaizing style of script, another visual means of establishing authority. The manuscript is usually dated to the mid-twelfth century, based largely on the words and abbreviations it employs.¹³ The script, however, is more akin to a very particular group of manuscripts from Paderborn, transcribed in the early eleventh century, around the time of Bishop Meinwerk (r. 1009-1036).¹⁴ The script of one of these manuscripts, a fragment of a lectionary now preserved in the Stuttgart Hauptstaatsarchiv, typical of this group (Figure 31),¹⁵ is astonishingly close to the script of the Vienna *On Diverse Arts*. In both manuscripts, the lower half of the g is relatively large, with a squared off lower loop that tilts up and to the right. The lower left stem of the x falls below the ruled line and then curves back up until it almost meets the bottom

¹⁰ Vienna, Österreichische Nationalbibliothek, Cod. 11236; the near "twin" of this manuscript, Venice, San Marco 3597 follows G in this variation.

¹¹ Studies of book production and scribal practices have brought to the fore the ways in which manuscripts can carry signs of their own authority or make claims to authenticity, particularly in practices of copying and compiling, or in the insertion of textual variants. For the practicalities of book production, and how details of the book as an object might be evidence for understanding it, see the essays in Linda L. Brownrigg, ed., *Medieval Book Production: Assessing the Evidence*, Proceedings of the Second Conference of the Seminar in the History of the Book to 1500, Oxford, July 1988 (Los Altos Hills, CA: Anderson-Lovelace, 1990); For some of the ways in which manuscripts can be understood to make a claim for the authority of their author, and carry signs of authenticity, see Malcom Beckwith Parkes, *Scribes, Scripts and Readers: Studies in the communication, presentation and dissemination of medieval texts* (London: Hambledon, 1991); for a more specific study of this process, in terms of text compilations, see Rouse and Rouse, "Ordinatio and Compilatio Revisited," as ch. 3, note 3.

¹² For a discussion of artistic work in terms of physical experience see Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago: University of Chicago Press, 2004); Smith discusses Theophilus, and particularly the second prologue, as emphasizing bodily experience, which she sees as a part of knowing about the transformation of matter, 108-110.

¹³ Bernhard Bischoff, "Die Überlieferung des Theophilus-Rugerus," as ch. 2, note 2.

¹⁴ For a study of this group of manuscripts see Hartmut Hoffmann, "Die Paderborner Schreibschule im 11. Jahrhundert," in Stiegemann and Wemhoff, eds., *Canossa 1077*, as ch. 2, note 41: vol. 2, 449-464.

¹⁵ Lectionary, Stuttgart Hauptstaatsarchiv, J 522 B Xa 588. For a study of this group of manuscripts see Hartmut Hoffmann, "Die Paderborner Schreibschule im 11. Jahrhundert," *Canossa 1077*, as ch. 2, note 41 and ch. 3, note 14: vol. 2, 449-464.

of the previous letter. The a's are straight, with a belly that, although narrow, hits the stem near the top of the letter. Stems of b's, h's, and d's are perpendicular, and the bottom stem of the s falls just below the ruled line of text. The similarity in script, therefore, seems to suggest a connection between the twelfth-century Vienna manuscript and these Paderborn codices of the eleventh century. The visual link is significant, for it connects *On Diverse Arts* to the legacy of Meinwerk, Bishop of Paderborn, and thence to the abbey of Helmarshausen, Roger's monastery, and also to the abbey of Abdinghof in Paderborn, for which Roger is thought to have made a portable altar.

The visual reference to the Paderborn tradition in the Vienna manuscript is part of a trend, a local surge of interest in the legacy of Meinwerk in the twelfth century.

Meinwerk was not only credited with greatly increasing the wealth and stature of the bishopric of Paderborn, but he was also the founder of the abbey of Abdinghof in 1031. In 1165, the Bishop was so much revered that Abbot Konrad of Abdinghof (1142-1173), wrote the *Vita Meinwerci*, recording the bishop's many deeds and accomplishments and earning him the status of the *beatus*. In the twelfth century, the memory of Meinwerk could be invoked as an authenticating force. Thus Roger of Helmarshausen depicted him on the top panel of the altar of Henry of Werl: Meinwerk appears as the predecessor and model for this later bishop of Paderborn, whom the emperor Henry IV appointed to the position in 1084, a controversial appointment in the midst of the Investiture Controversy that lasted from 1075 to the Concordat of Worms in 1122.

The Vienna manuscript's ties to Paderborn apply to Helmarshausen as well. Bishop Meinwerk was a significant figure in the history of the abbey of St. Godehard at Helmarshausen, as it was under this bishop that the abbey acquired its protected status.

Meinwerk seems to have continually struggled with the aristocracy for control of the abbey.¹⁶ One document, for example, dating to the early eleventh century, records Duke Henry II's protection of it. Such documents, sometimes forged, usually served to authenticate and authorize, such power structures and histories; archaizing script was an essential part of this function, because it was a visual reference to the older history and could even make a forgery look legitimate.¹⁷

The script of eleventh-century Paderborn, then, carried connotations of authority, and could refer to the history of Helmarshausen as well as the history of Paderborn. It even makes it more likely that the Vienna manuscript was written by someone within the larger Paderborn-Helmarshausen circle, someone who knew of Roger and his legacy. It is even possible that the text is a consciously close copy of an older manuscript kept in Roger's monastery.

The manuscript in Vienna thus gives evidence of a great concern for establishing the authority of the text, making its claim in different ways. While the unique arrangement of the prologues underscores the most distinctive character of *On Diverse Arts*, the inscription naming Roger as Theophilus endows the text with the clout of a known artisan; finally, the archaizing style of the script links the manuscript to the

¹⁶ The document is now preserved in Marburg Staatsarchiv as Kloster Helmarshausen 1017 Juli 11. According to Hoffmann, the document records an agreement by which the Duke Henry II assumes responsibility for the abbey of Helmarshausen from the church of Paderborn; see Hoffmann, "Die Paderborner Schreibschule;" as ch. 2, note 14 and ch. 3, note 14: 450. See also Eckhard Freise, "Adelstiftung, Reichsabtei, Bischofskloster – Konvent der Kalligraphen, Künstler und Fälscher. Zur Geschichte der Äbte und Mönche von Helmarshausen (997-1220)," in Stiegemann and Westermann-Angerhausen, eds. *Schatzkunst*, as ch. 1, note 2: 12-27.

¹⁷ Malcolm Beckwith Parkes, "Archaizing Hands in English manuscripts." *Books and Collectors, 1200-1700: essays presented to Andrew Watson*. James P. Carley and Colin G. C. Tite, eds. (London: British Library, 1997) 101-144. A similar archaizing script, with long stems of x's and g's is even visible in a twelfth-century manuscript from Stavelot of Flavius Josephus' *Antiquitates Iudaeorum, Bellum Judaicum*, from Stavelot, c. 1100, now preserved as Brussels MS II 179; see Stiegemann and Wemhoff, eds. *Canossa II*, as ch. 2, note 41: cat. no. 461. The similarity with Stavelot is particularly striking since it is another center of manuscript production where Roger may have worked, as will be addressed below.

heritage of Paderborn and Helmarshausen, where Roger was active. The manuscript is endowed with a personal reference and situated in a very particular literary and historical tradition.

One further element in the Vienna manuscript, surprising and little discussed, served a similar function. As is the case with all the surviving manuscripts of Theophilus' text, the Vienna manuscript contains no formal illustration. Yet tucked closely into two of its quires are drawings that may connect the manuscript to the work, and possibly the person, of Roger of Helmarshausen. The first is a fragment found on the edge of a stub, the protrusion of an inserted folio. Visible between folios 70v and 71r, it is continuous with folio 75. On this narrow strip of parchment there is found a drawn pattern of acanthus leaves (Figure 32), which runs upward from the lower edge to the upper. The pattern is formed of two alternating sets of leaves, one bound by a band at its base, with four leaves curving downward; the other bound with a circle, with four leaves turning upward. The series repeats twice; a portion of a fifth unit is cropped at the top of the page. The designs are drawn in black ink; one, toward the top, is filled in with red ink. The drawings are contemporary with the manuscript. The design fits well into its odd space, and the red ink used in the uppermost design matches the ink of the rubrics. This matching leads the viewer back to the inscription naming Roger. Both drawing and insertion were likely made by the same hand, and the two interventions seem reinforce one another.

In fact, there is a close connection between the drawing and Roger's own work. The pattern closely resembles an ornamental border visible on the underside of the object most certainly linked to Roger of Helmarshausen, the altar of Henry of Werl, made

perhaps between 1107-1122 and now in the Diözesanmuseum in Paderborn (Figure 4).

This copper gilt panel is engraved with an image of the saint Liborius inside a decorative frame (Figures 33, 33a). The frame is made up of a series of alternating acanthus leaves which closely resemble those in the manuscript. Each unit contains four leaves, set into an alternating pattern, with one set of leaves turning upward, and the next turning downward. All are bound with a roundel.

This pattern drawn in the manuscript and engraved on the underside of the altar are not common, but are found on objects connected, in one way or another, with Roger of Helmarshausen. An ornamental border of acanthus leaves in a border in the sacramentary of Wibald of Stavelot is also very close to the drawing, suggesting a further link to Roger. It is known that Roger professed at the abbey of Stavelot, and his hand has even been identified in an image of the prophet Jeremiah on folio 161r of the Stavelot Bible (Figure 10). Even the round circles at the center of the leaves in the Vienna manuscript might be recognized at the center of the upper canopy and at the top of the vines framing the image. Two other examples connect the pattern to the atelier that produced works for the Theophanu, granddaughter of Otto II and abbess at Essen (r. 1039–1058). A bookcover made for Theophanu is composed of a gilded repoussé plaque, into which is set an ivory showing the Crucifixion, the Ascension and the Nativity (Figure 34). The ivory is surrounded by a border of acanthus leaves, each unit of which contains either three or five leaves. The leaves here alternate, one curving upward while the next curves down, and the leaves are bound either by slim bands or roundels and framed by a spandrel. The pattern matches very closely that copied into the Vienna manuscript. Peter Lasko, who first attributed the Jeremiah initial in the Stavelot bible to

Roger, has also called attention to the close resemblance between certain objects made for Theophanu and certain objects made by Roger: these are most visible in the gem settings at the center of the Enger cross and those on the cross given by Theophanu to the abbey of Essen in 1040 (Figure 35).¹⁸

The close resemblance of the drawing of an ornamental pattern in the Vienna manuscript to the Henry altar, and to the Stavelot Bible, and to the cross of Theophanu, begins to suggest that the manuscript was used to record an ornamental motif associated with Roger's work. It is even conceivable that it is a copy after a workshop sketch. In any event, just as the inscription naming Roger records the memory of an author, the drawing likely records the memory of his work.

Less decisive, but buttressing the argument, is a second drawing found in the Vienna manuscript on folio 52v. The page, coming in the break between the second and third books, contains no text but only a much-faded drawing of a semi-circular archway within a rectangular frame with some cross-hatched texture drawn within (Figure 36). It is strikingly close to the frame around the head of Liborius on the underside of the altar of Henry of Werl (Figure 33, 33a). While the motif is a common enough in manuscripts, the cross-hatching is a texturing technique seen more often in metalwork. It is particularly common in twelfth-century objects from the Mosan region, around Stavelot, and on objects made at Stavelot during the abbacy of Wibald (r. 1130-1158). These include the reliquary of Pope Alexander (Figures 24, 24a), discussed above, or the famous Stavelot Triptych, now in New York (Figures 37, 37a). Placed at the beginning of Theophilus'

¹⁸ In addition to the form of the two crosses, both a latin cross with widened end units, Peter Lasko has shown that the filigree and gem settings used for the Enger cross are nearly identical to those used on Theophanu's cross. Lasko, "The Enger Cross," *Studies on Metalwork, Ivories and Stone* (London: Pindar Press, 1994) 197-236.

book on metalwork, serving almost as an introduction to the text, the drawing takes on significance. Here too the emphasis is on ornament and composition, not on iconographies. The likelihood that the two drawings in the Vienna manuscript record a pattern used by Roger in his workshop becomes ever greater.

Overall, the drawings, copied into blank spaces in the earliest surviving manuscript of Theophilus' text, seem to have recorded the memory of an image.. As Mary Carruthers has famously shown, the act of remembering in the Middle Ages was often achieved through visual means, and images often served as mnemonic devices.¹⁹ Placed in the manuscript that preserves Roger's name, possibly drawn by the very same hand that identified the author, these drawings record visual characteristics of his work. The images may refer to but do not belong to the genre of the pattern book.²⁰ Rather, they are part of a process of the activation of community and identity.²¹ Following the lead of Patrick Geary, we might begin to see the drawings as helping to create a history, solidifying memory and links between persons past and present. The manuscript preserves the memory of an artisan and authenticates a text. It becomes clear that Theophilus and Roger, as author and an artist, held enough authority or significance to be remembered by a later generation.

¹⁹ Mary Carruthers work on memory is well known and much discussed, and used especially by art historians to discuss how images could stimulate contemplation. For a study of images as mnemonic devices see Carruthers, *The Book of Memory: A Study of Memory in Medieval Culture* (Cambridge: Cambridge University Press, 1990) and for its application to reading and contemplation in particular, Carruthers, *The Craft of Thought*, as ch. 2, note 188. For an art historian's use of Carruthers' work on memory, where images solidify memory of events, see Carolyn Carty, "Dream Images, Memoria, and the Heribert Shrine," *Memory and the Medieval Tomb*, ed. E. Valdez del Alamo (Brookfield, VT: Ashgate, 2000) 227-247.

²⁰ For studies of transmission of drawings and patterns in the Middle Ages see Birgit Bänsch, *Kölner Goldschmiedekunst*, as ch. 1, note 9.

²¹ Patrick Geary, *Phantoms of Remembrance*, as ch. 3, note 1; idem, *Furta sacra*, as ch. 3, note 1; and Geary, "Sacred Commodities: The Circulation of Medieval Relics," *The Social Life of Things: Commodities in Cultural Perspective*, ed. A. Appadurai (Cambridge: Cambridge University Press, 1986) 64-94.

The Paderborn Charter: Remembering an Agreement, and an Artist's Work as an Item of Exchange

The idea that the name Roger in the Vienna manuscript might refer to the artist Roger of Helmarshausen has been largely based on happy coincidence. The latter is known at all through the chance survival of a charter in Paderborn that mentions a certain Roger as a monk and artist at the abbey of Helmarshausen in Northern Germany, located on the Weser River near the city of Paderborn (Figure 29 and Diagram 2, map).²² The charter, the record of an agreement, attests to events that purportedly took place in 1100 and names Roger as an artist.²³ The reference to Roger has become a central to discussions of Roger and his career, but the document was written more than a century after the events it describes. Paleographical and internal evidence suggest it was transcribed in the early thirteenth century; it is therefore either a copy of an earlier document, or, in a very different scenario, a forgery.²⁴

The document records an exchange between Thietmar, the abbot of Helmarshausen, and Henry of Werl, the bishop of Paderborn, whereby the abbey of Helmarshausen received the parish church of Thesle, and “all things that are accessory to

²² Albert Ilg, *Schedula Diversarum Artium*, as ch. 1, note 31.

²³ The document is now conserved as Paderborn, Erzbistumarchiv, Generalvikariat, Urkunde 11. For a study of the document, see Clemens M. M. Bayer, “Der Paderborner Dom-Tragaltar und die zu 1100 gefälschte Urkunde Bischof Heinrichs II. von Werl für die Abtei Helmarshausen,” in Stiegemann and Westermann-Angerhausen, eds., *Schatzkunst*, as ch. 1, note 2: 65-77.

²⁴ The most recent analysis of the document, with images, transcriptions, and a German translation, is Bayer, “Der Paderborner Dom-Tragaltar,” in Stiegemann and Westermann-Angerhausen, eds., *Schatzkunst*, as ch. 1, note 2 and ch. 3, note 23: 65-77; and Freise, “Adelstiftung, Reichsabtei, Bischofskloster,” in idem, and as ch. 3, note 16: 12-27, esp. 23. See also Eckhard Freise, “Adelstiftung, Reichsabtei, Bischofskloster - Konvent der Kalligraphen, Künstler und Fälscher : zur Geschichte der Äbte und Mönche von Helmarshausen (997 - 1196),” in Baumgärtner, ed., *Helmarshausen*, as ch. 1 note 12: 9-44; and Freise, “Roger von Helmarshausen in Siener Monastichen Umwelt,” as ch. 1, note 79. Though it does not account for the most recent studies of Freise and Bayer, see also Lasko, “Anthropomorphic Evangelist Symbols,” as ch. 2, note 176: 19-20.

it,” in return for a golden cross and a *scrinium*, or reliquary box, dedicated to Saints Kilian and Liborius, which the “monk Roger” had made. The altar of Henry of Werl is usually thought to be the *scrinium* mentioned: it is inscribed with the name and image of Bishop Henry, it carries images of Saints Kilian and Liborius, and it dates, on stylistic grounds, to the first quarter of the century (Figures 4, 38).²⁵

The property received included the tithes of the village of Muthen, pastures, lands “cultivated and uncultivated,” a meadow, and the water of the river; this last is later referred to as “fishing rights.” As Clemens Bayer has shown, the charter was written in the context of a larger dispute over whether the abbey of Helmarshausen would be the seat of the archdeacon of Paderborn; it was but one of a series of documents transcribed at the abbey in the late twelfth and early thirteenth century, that sought to establish rights and privileges for Helmarshausen, each purportedly composed at an earlier date.²⁶ This particular document could have been written to confirm ownership of that property, or in response to a property dispute.²⁷ No written records survive to confirm or negate the claims of the document.

²⁵ Peter Lasko has dated the work to 1100-1107 on stylistic grounds, while the more recent catalogue for the *Canossa* exhibition dates the work to between 1120-1127 due its stylistic similarity with the manuscripts of Helmarshausen from the 1120s, such as the Gospels of Helmarshausen, now Getty MS. Ludwig II 3, dated between 1120 and 1140. See Lasko, “Germany: Roger of Helmarshausen,” *Ars Sacra*, as ch. 2, note 176: 163-170; and Stiegemann, and Wemhoff, eds. *Canossa 1077*, as ch. 2, note 41: II, cat. no. 506, 418-419. For the manuscripts of Helmarshausen, Martin Grosebruch, ed. *Helmarshausen und das Evangeliar Heinrichs des Löwen*, Schriftenreihe der Kommission für Niedersächsische Bau- und Kunstgeschichte bei der Braunschweigischen Wissenschaftlichen Gesellschaft 4 (Göttingen: Goltze, 1992); Ekkehard Krüger, *Die Schreib- und Malwerkstatt der Abtei Helmarshausen bis in die Zeit Heinrichs des Löwen* (Darmstadt: Selbstverlag der Hessischen Historischen Kommission Darmstadt, 1972); for the relation between the manuscripts and metalwork at the abbey, see particularly in relation to metalwork, see the essays in Baumgärtner, ed. *Helmarshausen*, as ch. 1, note 12.

²⁶ Bayer, “Der Paderborn Dom-Tragaltar und die zu 1100 gefälschte Urkunde,” in *Schatzkunst*, as ch. 1, note 2 and ch. 3, note 23; and Freise, “Adelstiftung, Reichsabtei, Bischofskloster;” as ch. 3, note 16.

²⁷ A sharp increase in documents dealing with disputes over property is particularly visible in the many surviving documents and charters from the abbey of Stavelot. Here too, the increase begins in the mid-twelfth century. See *Liste chronologique des édits et ordonnances de la principauté de Stavelot et de Malmédy, de 650 à 1793* (Brussels: Devroye, 1852).

According to the *Vita Meinwerci*, written in 1165, Thesle, along with a number of other village churches, had been given over to the protection of Saints Kilian and Liborius at Paderborn in the eleventh century by Duke Bernhard, who was acting as proxy for a group of three sisters; it was a gift they had made for the benefit of their souls.²⁸ The Paderborn document, claiming a date roughly fifty years later, records a follow-up exchange, when Thesle was given to the abbey of Helmarshausen by Bishop Henry in exchange for an altar dedicated to the same saints, Kilian and Liborius. Object and church, whoever its owner, shared a dedication, and the shrine, in the Paderborn exchange, functions as a kind of substitute, both spiritual and economic, for the church itself. The contractual relationship is made visible and ratified by the altar. The charter focuses on property, and it goes to great lengths to describe the bishop's right to transfer income- and prestige-providing land, tithes, and fishing rights to Helmarshausen. What is interesting, however, is the unquestioned role played by precious objects in the exchange. The transfer of Thesle in particular seems to make equivalent the church property and a piece of metalwork.

Whether or not it is a forgery, and thus a reliable source for the name and work of Roger, the Paderborn document offers clear evidence that in the thirteenth century, it was not questioned that an art object made by a known artist could hold serious economic

²⁸ *Vita Meinwerci*, MGH SS 59, cap. 123, pag. 61, lin. 22-24: *Quedam sorores Bosan, Cristina, Ebbican nominatae predia sua in Thesli, Sidessun, Uffanhusun, Essiberch, Ananroth, Walieressun, Suthem, Erpessun, quae hereditario iure possederunt, per manum Bernardi ducis ad altare sanctae Mariae sanctorumque Kiliani et Liborii pro remedio animarum suarum dederunt...* The possibility that these are connected requires further work, however, as the *Vita*, dates to the mid-twelfth century, and the falsification of the contract to later, though it claims the date of 1100.

value. The exchange involved three parties: the bishop, the abbot, and the artisan; each made a contribution, and Roger's contribution appears to have been skill and reputation. His name, even if included at a later date in order to authenticate a document recording an earlier agreement, seems to have lent the object a higher monetary worth. Just as the Vienna manuscript records the name of Roger and preserves workshop patterns, so too the Paderborn charter preserves the memory of works by Roger, authentic or no. We come to see the identity of the artist and memory of his handiwork and signature style as contributing to the value of a treasured object to be seen in Paderborn.

The Necrologies: Remembrance of an Artist, Remembrance of a Monk

The practice of remembrance was the work of any monastery; and the name "Roger" has been discovered in five early-twelfth-century necrologies from monasteries in the Rhine-Meuse region. These lists of the dead – whether monks, figures related to an abbey, or patrons – record the names of persons whose souls are to be remembered in prayer.²⁹ One of the best known necrologies of the time, the so-called *Liber vitae* from the abbey of Corvey, includes a list of brothers from the abbey of St. Godehard in Helmarshausen that includes a certain Roger (Figure 39).³⁰ Four other necrologies, as Eckhard Freise has found, name Roger, if with some variations in institutional affiliation and date of death: these come from the abbey of Abdinghof in Paderborn, St. Pantaleon's in Cologne, St. Mauritz in Minden, and the abbey of Echternach, in modern day Luxembourg (Diagram

²⁹ For a study of necrologies of the region as a source and genre in itself, see Alfons Zettler, "Gedenkbücher und Nekrologien als Quellen zur monastischen Welt," in Stiegemann and Westermann-Angerhausen, eds., *Schatzkunst*, as ch. 1, note 2: 28-40.

³⁰ *Liber Vitae* of the abbey of Corvey, Münster, Staatsarchiv, Msc. I, 133, pag. 26.

2, map). Freise believes that all refer to Roger of Helmarshausen.³¹ The presence of Roger's name in so many necrologies would indicate that his name was known well beyond his own abbey, throughout the region.

Analyzing the various surviving documents and objects, Freise has reconstructed the life of the monk. He suggests that Roger was born sometime around 1070 in German speaking region of the diocese of Liège, on the Meuse river in present day Belgium, and spent the early part of his career at the royal abbey Stavelot, in the hills nearby, where he professed, learned his trade, and eventually worked on the great manuscript, the Stavelot Bible, completed in 1097 (Figures 10, 26). Freise surmises, however, that Roger left the royal abbey soon after, in the wake of internal strife that occurred in 1100, and went to the abbey of St. Pantaleon, in Cologne, where he wrote *On Diverse Arts*.³² He would have been in Helmarshausen, then, in the 1110s and 1120s. This movement would explain discrepancies in the documents. In the necrology of St. Pantaleon, Roger is named a brother of St. Pantaleon, not Helmarshausen, while in the necrology of the abbey of Echternach, in the neighboring archdiocese of Trier, an early insertion in the text names Roger as monk of St. Remaclus, likely a reference to the abbey at Stavelot.³³ The shift may correspond to the point in life at which Roger had contact with these neighboring abbeys; known at Echternach as having come from Stavelot, known at Paderborn as a monk from Helmarshausen.

³¹ Eckhard Freise, "Roger von Helmarshausen in seiner monastischen Umwelt," as ch. 1, note 79; a shorter version, summarizing some of the results of this research, is in Eckhard Freise, "Zur Person des Theophilus und seiner monastischen Umwelt," in Legner, ed., *Ornamenta Ecclesiae*, as ch. 1, note 14: I, 357-362.

³² Freise, "Zur Person Theophilus," in Legner, ed., *Ornamenta Ecclesiae*, as ch. 1, note 14, and ch. 3, note 32: 360.

³³ Freise, "Zur Person Theophilus," in Legner ed., *Ornamenta Ecclesiae*, as ch. 1, note 14, and ch. 3, note 32: 359; Lasko, "Anthropomorphic Evangelist Symbols," as ch. 2, note 176: 18.

It appears, then, that Roger had a significant relation to a number of abbeys, enough so that he was remembered by the monks in their prayers. A parallel between the remembrance of Roger in the necrologies and the remembrance of him in the Vienna manuscript and in the Paderborn charter is evident. Roger seems to have worked within a larger network of Benedictine abbeys: his travels and the objects he fashioned led to his acquiring a reputation across the region, in Liège and in Helmarshausen, in Echternach, Stavelot, and Cologne.

The Paderborn Objects: Recognizable Style and Ottonian Precedent

The group of objects attributed to Roger display recognizable visual characteristics, whether in style, structure, fabrication, or ornament. These “recognizable elements,” also encountered in the drawings in the Vienna manuscript, seem to have functioned as a hook for memory. Consistencies in figural style and ornament helped to define a workshop style, while distinctive characteristics of the structure of a work and manner of its fabrication worked to endow objects with the authority of specific past traditions. Turning an eye to contemporary networks of abbeys and their interlocking interests, then, we can begin to see these recognizable elements are visible manifestations of social connections, creating and solidifying links between institutions, even carrying the ties into future generations.

Many of the distinctive characteristics that connect a work to Roger of Helmarshausen are visible in the altar of Henry of Werl (Figure 4). Scholars have used this Paderborn altar to identify the “hand” and œuvre of Roger and his followers,³⁴ while

³⁴ Otto von Falke identified various works as the “hand” of Roger in his 1904 study, and again in an article of 1907, attributing to Roger the portable altar of Abdinghof, now in Paderborn, and the Enger cross, which

departures from this norm have led scholars to question whether objects were indeed made by Roger.³⁵ Yet the ways in which such a clearly recognizable style of work might have functioned in the local artistic context has not been considered. It is precisely the consistencies and variations across works that can help us to determine how aspects of a style may have worked to connect objects and patrons in a network.

The altar of Henry of Werl is composed of silver-gilt plates affixed to a wooden core, while, on the top, nielloed plaques frame a mottled-green, altar stone of *verde antico*. (Figures 4, 21). On the narrow front panel the dedicatory saints Kilian and Liborius are shown in high relief repoussé, flanking Christ, who sits on an arch in a jeweled and filigree roundel (Figure 38). Opposite, on the narrow back panel, is an image of the Virgin as intercessor, enthroned and flanked by the apostles, John and James the Greater (Figure 40). The plates on the sides of the altar contain engraved images of the remaining ten apostles, five per side, seated under an arcade (Figure 41). Around the altar

he further argued was the cross mentioned in the Paderborn document. Otto von Falke and H. Frauberger, *Deutsche Schmelzarbeiten des Mittelalters. Und andere Kunstwerke der kunsthistorischen Ausstellung zu Düsseldorf* (Frankfurt am Main: Baer, 1904) 13-17; and Otto von Falke, "Das Kunstgewerbe im Mittelalter," *Illustrierte Geschichte des Kunstgewerbes* I, ed. Georg Lehnert (Berlin: Oldenbourg, 1907) 190-420, esp. 240-243. It was then Max Creutz who in 1909 Max Creutz expanded the oeuvre of Roger to include a bookcover now in Trier, and two crosses, now in Frankfurt and Cologne; for the Trier bookcover, see Max Creutz, *Kunstgeschichte der edlen Metalle, Geschichte der Metallkunst* 2 (Stuttgart: Enke 1909) 154f; and for the crosses, Max Creutz, "Aus der Werkstatt des Rogerus," *Zeitschrift für christliche Kunst* 22 (1909) 357-370; 359-361; Later studies have largely corroborated these attributions, and the objects attributed Roger have since established him as a well-known artist with a stable body of work, and objects similar to those of Roger have been attributed to his "followers:" von Falke, for example, attributed a cross in Fritzlar to a follower of Roger, as well as an oval reliquary in Xanten, 17, and expanded the circle of objects in his 1907 article: von Falke, "Das Kunstgewerbe im Mittelalter," as above, 240-243. For further attributions to Roger, see the catalogue, *Kunst und Kultur in Weserraum, 800-1600*, exh. cat. (Münster: Aschendorff, 1966); esp. vol. 2, no. 251; Hermann Fillitz, "Rogerus von Helmarshausen," in Grosebruch, ed., *Helmarshausen und das Evangeliar Heinrichs des Löwen*, as ch. 3, note 27: 43-62, 58; Ursula Mende, "Goldschmiedekunst in Helmarshausen," in Baumgärtner, ed., *Helmarshausen*, as ch. 1, note 12: 163-198, esp. 180-183; Stiegemann and Wemhoff, eds., *Canossa 1077*, as ch. 2, note 41: II, no. 509; Lasko, "Germany: Roger of Helmarshausen," *Ars Sacra*, as ch. 2, note 176: 163-170; idem, "Roger of Helmarshausen, Author and Craftsman," as ch. 1, note 12; idem, "The Enger Cross," ch. 3, note 19.

³⁵ The most recent work on this comes from the *Canossa* exhibition, at Paderborn, in 2006. See Stiegemann and Wemhoff, eds. *Canossa 1077*, as ch. 2, note 41; and the series of essays published in tandem with the exhibition, Stiegemann and Westermann-Angerhausen, eds., *Schatzkunst*, as ch. 1, note 2.

stone on the top of the altar are four nielloed silver plaques (Figure 21). On the upper plaque of the composition, the angel of Mark and the eagle of John flank an image of Bishop Meinwerk of Paderborn, who raises the eucharistic chalice in celebration of the mass, while below, the Lion of Mark and the Ox of Luke flank an image of Bishop Henry of Werl censing the altar.

The most distinctive feature of the style of Roger as seen on this altar is the use of line in the rendering of drapery, especially visible in the figures of the Apostles. The figure of St. Bartholomew (Figure 41) is rendered in lines of varying thickness, set close together to set off characteristic areas of blank space at the most prominent elements, for example, the right knee of the figure, or the left shoulder. They create “nested V-folds,” which define the bodily elements as they create a linear surface pattern that shows little depth or mass.

A similar manner of rendering drapery is visible on the reverse of the so-called Enger cross (Figure 6a). The cross, as discussed above, is very probably that mentioned in the Paderborn document, as it holds a relic of the true cross and shows stylistic features typical of Roger of Helmarshausen’s work,³⁶ especially in the niello panels on the reverse side (Figure 42-45).³⁷ The cross is relatively small, measuring just 22 cm high. It is a *crux gemmata*, a gold field set with numerous gems and pearls, with four squared ends and a central square panel, each containing large gems bordered by a string of pearls. The central panel of the cross is dominated by a large crystal, probably Carolingian, carved with a figure of an angel, which covers a fragment of the True Cross.³⁸ The reverse of the cross holds four panels, one set in each terminus, which contain anthropomorphic images

³⁶ von Falke, *Deutsche Schmelzarbeiten*, as ch. 3, note 34: 16.

³⁷ von Falke, *Deutsche Schmelzarbeiten*, as ch. 3, note 34: 16-17.

³⁸ Lasko, “The Enger Cross,” ch. 3, note 19.

of the four Evangelist symbols, Matthew, Mark, Luke, and John; a fifth panel is set in the center of the cross, with an image of the Lamb of God. The drapery of the figures show the V-shaped folds that define the “Roger style:” the drapery on the Ox of Luke, for example, shows a series of V-s just below the animal’s left knee, and the hooked lines at the bottom of the drapery are very similar to those just above the left ankle of St. Philip on the Henry of Werl altar (Figure 41). The notched background of the panels and the heads of the beasts are also similar to the backgrounds and faces of figures of the Henry altar.³⁹ The V-folds and notched backgrounds do not define the space of the image; they form a linear design and distinctive pattern that was able to be repeated in other contexts.

Inconsistencies in the execution of these very panels show the challenges scholars have faced in trying to define workshop practice. There were probably three different hands at work in the piece (Figures 6a, 42-45): one is seen in the figures of the Eagle and the Lion, another for the Angel, and a third for the Ox. It is this last that the closest similarities are seen to what is regarded as the hand of Roger, notably in the V-folds around the animal’s left knee, as described above (Figures 41, 42). In contrast, the drapery on the figure of Matthew (Figure 43) contains the same V-folds, but distributed to very different effect: this artist has drawn little contrast between linear pattern and blank space. Instead, the lines are set close together and distributed evenly across the figure, leaving few open spaces to delineate the forms beneath. This may reflect a difference in skill. The repeated use of the sharp folds suggests that each figure follows standardized patterns of a workshop, probably the Helmarshausen atelier under the direction of Roger.

³⁹ Lasko, “The Enger Cross,” ch. 3, note 19: 97.

Elements like the sharp, nested V-folds and criss-crossing lines are recognizable as a workshop style and can be read as formulae, in this case, a manner of rendering drapery that is developed in relation to preferred technique. The Eagle and the Lion do not share the contrast of closely set lines and open spaces visible on the Ox, nor the busier, more even pattern of the drapery seen on the Angel of Matthew; yet it is as though each is following the same formula. The fold of the cloth at the neck of the three animals is not identical, but in each case a sideways V at the left points toward an overlapping layer comprised of two lines that create drapery folds. Hands and feet follow similar formulae, but again with similarly varied effect: the right hand of the Ox, the Lion, and the Angel are nearly identical: each hand is held upright, with palm outward in a presentation gesture, the smallest finger slightly bent, and a thumb muscle drawn to mirror the backward curve of the outer palm. A line above each thumb muscle creates another fold in the flesh, but at different heights; the rendering of the Angel's hand again shows a lack of clarity: the artist has added an extra crease in the hand, and the folds of the drapery behind the hand obscure the shape of the hand as it is set against the figure. The methods of drawing are consistent, if the execution is not.

The different hands converge to define a workshop style, even when they display less careful work or varying degrees of expertise with the medium. The Eagle's left hand is missing, more likely an omission than part of the iconography, as the other hand, bare, holds the scroll. The Angel's halo differs from the others, as it lacks a ring of dots on its edge, and the angel is also the only figure rendered with solid black fill beneath the drapery of the raised hand. Indeed the means of filling of the background varies the most: that behind the Ox is the busiest, with twenty-three lines, while that behind the Angel

opposite has only sixteen. The backgrounds were filled in last, and were not ruled, but done by eye. Rows behind the Ox do not match from bottom left to bottom right, though the artist eventually compensated for this, adding an extra row of arches below the symbol's right wing. A disjunct in the pattern is also visible behind the Eagle, where the third row from the top was corrected and filled with arches to match the other side. It becomes clear, then, that the panels on the reverse of the cross were not executed by a single hand, nor with the same level of expertise and consistency, as was the portable altar of Henry of Werl. The details which vary the most are not those which scholars have used to define Roger's style. The elements characteristic of Roger – the V-folds of the drapery and the ornament of the background – remain the same. These are stylistic elements that can remain consistent and identifiable, despite execution by different hands or adjustments for different contexts. The effect is one of consistency, and it creates a kind of visual brand that would, over time, serve to evoke the memory and the work of Roger of Helmarshausen.

That style might carry valence in itself is suggested by the clear references to, and variations on, Ottonian precedent in the work. Similarities between objects made for imperial patrons like Theophanu (d. 1058), abbess of Essen and granddaughter of the Holy Roman Emperor Otto II, or those commissioned by Gertrude, countess of Braunschweig (d. 1077), have led scholars to see in the Helmarshausen works a “revival” of the Ottonian style,⁴⁰ or even the fruits of an unbroken workshop tradition.⁴¹

⁴⁰ Lasko, on Gertrude and Theophanu; for the connections between Corvey and Helmarshausen see Ursula Mende, “Goldschmiedekunst in Helmarshausen,” in Baumgärtner, ed., *Helmarshausen*, as ch. 1, note 12 and ch. 3, note 34: 163-198; and in the same volume, Harald Wolter-von dem Knesebeck, “Göttliche Weisheit und Heilsgeschichte: Programmstrukturen im Miniaturenschmuck des Evangeliars Heinrichs des Löwen,” 147-162. See also Ekkehard Krüger, *Die Schreib- und Malwerkstatt*, as ch. 3, note 25; and Elisabeth Klemm, “Beobachtungen zur Buchmalerei von Helmarshausen. Am Beispiel des

But practicalities of workshop practice can only be part of the answer: across the objects associated with Roger, there is a conscious use of imperial motifs, and a consistency and clarity in the deployment of ornamental motifs, that together create a visual mode at once new and recognizable that remains evocative of imperial heritage.

The altar of Henry of Werl seems, in fact, to be in its form, structure, and ornamental program a reconfiguration of an altar now in the Cleveland Museum of Art, commissioned by Gertrude between 1037 and 1045 (Figure 46). Gertrude commissioned the altar some time just after the death of her husband, Count Liudolf of Braunschweig, and gave it to the Cathedral of St. Blaise at Braunschweig, where it later became a part of the Guelph treasure. The two altars conform in basic shape: both are structured as reliquary boxes, with an overhanging top panel, an equally large bottom panel, and beveled edges. The altar of Gertrude is one of the few Ottonian hinged lid altars to survive; and there are just a few others of this form extant from the late eleventh and early twelfth century.⁴² Most altars of the entire period in question are simpler boxes, some just wide enough to hold an altar stone, and without the cantilevered edges: this includes one from Fulda, now in the Musée National de Moyen-Âge–Thermes Cluny, in Paris, and a surviving eleventh-century altar top from Ippendorf, near Cologne, now in the Louvre (Figures 47, 48) The particularity of the shape of Bishop Henry’s altar is less like a box, though it is made to hold relics; the Paderborn contract, accordingly, uses the

Evangelistenbildes,” in Grosebruch, ed., *Helmarshausen und das Evangeliar Heinrichs des Löwen*, as ch. 3, note 25: 133-164.

⁴¹ See especially Lasko, “The Enger Cross,” as ch. 3, note 19; and idem, “Germany: Roger of Helmarshausen,” in *Ars Sacra*, as ch. 2, note 176: 163-170.

⁴² The form does become more common, however, in the mid- and late-twelfth century, as is evident on the altar of Eilbertus of Cologne, of 1130 or 1140, now in the Kunstgewerbemuseum in Berlin, or on the Stavelot altar, of 1150 or 1160, in Brussels, Musées royaux d’art et d’histoire.

word *scrinium*, or box or case, to describe the Henry altar, closely linking it to objects like its illustrious precedent, the altar of Gertrude.⁴³

The altar of Henry of Werl is also slightly bigger than contemporary or later twelfth-century altars, but similar in size to Gertrude's imperial altar. Measuring 34.5 centimeters in length, and 21.2 centimeters in breadth, it stands on four bronze cast clawed feet, bringing its height to 16 centimeters. This makes it, slightly taller than altars such as the one also attributed to Roger of Helmarshausen for the abbey of Abdinghof, made between 1107 and 1122, which has much shorter feet and only measures 11.8 centimeters in height (Figure 5). Eleventh-century altars with ivory panels, such as one at Darmstadt and another now at Dumbarton Oaks tend to be significantly smaller: each is around 21 or 22 centimeters long and 15 or 16 centimeters wide. Repoussé altars, such as that of Gertrude and Henry of Werl, can be bigger than those constructed in relation to a preexisting ivory. The altar of Gertrude is slightly shorter than the Henry altar (27 by 21 cm), while the Ippendorf altar cover is slightly longer and narrower than the Henry altar (33.5 by 16 cm). But the relatively monumental proportions of the Henry altar clearly bring it into connection with these earlier, Ottonian-era altars.

The adjustments made reflect the particular religio-political context in which the Henry altar was commissioned, but the parallels are several. On top of the Gertrude altar two concentric filigree bands frame an altar stone and these contain a niello inscription naming Gertrude as the patron (Figure 49). Similarly on the top of the Henry altar, there are two concentric bands around the altar stone, and between them, panels of niello with

⁴³ Bayer has argued that the *scrinium* would not refer to a portable altar, but to a box-formed reliquary, and thus may not refer to the altar. Bayer, "Die gefälschte Urkunde Bischof Heinrichs II," in Stiegemann, and Westermann-Angerhausen, eds., *Schatzkunst*, as ch. 1, note 2: 69.

an inscription that refers to the patron, but here the plaques contain an image of the commissioner as well as a commemorative inscription.

The altar of Henry of Werl rotates the orientation of the Gertrude altar, and the reason can be seen to be iconographic. The images on the top of Henry's altar, oriented vertically, are to be seen in a specific order: from Meinwerk above to Henry below, they trace an episcopal lineage. On the Ottonian altar, the long sides contain images of the apostles under arcades. On the "front" six apostles flank Christ, while on the "back" the remaining six flank the Virgin. The Henry altar rearranges these, keeping the apostles under arcades on the long sides, but placing Christ flanked by Saints Kilian and Liborius on one short end and the Virgin on the other. Seen from this point of view, the episcopal lineage traced on top continues to include Kilian and Liborius, with Christ at the center.

Similarities in structure between the altar of Henry and the altar of Gertrude show consciousness of a visual heritage. The clear references to and variations on the Ottonian precedent suggest an interest in recalling the past, and building upon its authority, while reconfiguring it for a new present. Ornament, as a manipulation of material, can be then what Oleg Grabar has called a mediator, serving a middle ground between meaning and non-meaning.⁴⁴ It can function as a referent, and as an underlying visual "theme," or, broadly speaking, a pattern or visual structure, which can be reconfigured and reused.

Recognizable formal elements seen across a range of objects could alert the viewer to both historical legacies and current economic interests. Gertrude, wife of Count Liudolf of Braunschweig, was of the Saxon royal house. Henry of Werl was as well. His reign as bishop was marked by political strife brought on by the investiture controversy; Henry was installed as bishop by the emperor Henry IV, in Rome, in 1084, taking the

⁴⁴ Oleg Grabar, *The Mediation of Ornament*, (Princeton, NJ: Princeton University Press, 1992).

seat from the candidate preferred by the cathedral chapter, Henry of Assel. The period of Henry of Werl's bishopric is sometimes referred to as the "schism" of Paderborn.⁴⁵

Viewed from this tumultuous context, the imperial connections of the altar and cross become more significant. Through the reconfiguration of elements of the altar of Gertrude, then, the Paderborn altar sets Bishop Henry in the lineage of the Saxon royal house, and thus helps to legitimize his position as an imperial bishop. The reworking of such an older program for political purposes suggests that ornament itself, as well as overall form, could express political connections.⁴⁶ Such links served the interests of the abbey as well; Helmarshausen's relations with the house of Braunschweig would continue through the twelfth century, culminating in the commission of a lavishly embellished Gospel Book for the Duke of Braunschweig, Henry the Lion, in the 1170s, and now preserved in the Herzog August Bibliothek, Wolfenbüttel.

The distinctive style of Roger of Helmarshausen, seen in an array of contemporary objects, could also serve to consolidate social networks connecting contemporary abbeys and persons to each other, as well as to a shared imperial past. The altar Roger made for the abbey of Abdinghof, was also likely a project commenced under the auspices of Henry of Werl (Figure 5). It is smaller than the bishop's altar, as noted above, and unlike the Henry altar, with its variety of techniques and materials, is simply

⁴⁵ Thomas Vogtherr, "Handlungsspielräume Bishöflicher Parteinahme in Westfalen," *Vom Umbruch zur Erneuerung? Das 11. und beginnende 12. Jahrhundert – Positionen der Forschung*, ed. Jörg Jarnut and Matthias Wemhoff (Munich: Wilhelm Fink, 2006) 417-425, here 422.

⁴⁶ The study of ornament as a carrier of meaning has a long historiography, particularly in the study of Islamic art: see Oleg Grabar, "Die Ethische Dimension des Ornaments," as ch. 2, note 189. Oleg Grabar, "The Shared Culture of Objects," *Islamic Visual Culture, 1100-1800, Constructing the Study of Islamic Art II* (Aldershot: Ashgate Variorum, 2006) and Gülru Necipoglu, *The Topkapi Scroll – Geometry and Ornament in Islamic Architecture: Topkapi Palace Museum Library MS H. 1956* (Santa Monica, CA, 1995); classic texts include Oleg Grabar, *The Mediation of Ornament* as ch. 3, note 44. Ornament has been less studied in the western medieval context. For an analysis of the political implications, or aspirations of style, see Willibald Sauerländer, "Antiqui et moderni at Reims," *Gesta* 42 / 1 (2003) 19-37.

ornamented, with copper gilt plaques on all sides. The top of the altar has been much restored; it now comprises four gilded copper plaques with images of the dedicatory saints Paul, Felix, Peter, and Blaise framing an engraved band of silver and a modern altar stone (Figure 50).

The martyrdoms of saints seen on the sides of the altar are rendered in openwork. A technique described by Theophilus, openwork, (*opus interrasile*) requires a hammer and chisel to cut away ornament or figures from metal pieces which are then mounted against contrasting grounds.⁴⁷ Though relatively uncommon on surviving altars, the technique is also employed on the rear short end of the Henry altar, where the Virgin is shown enthroned between two saints, and may in fact be a technique for which Roger was recognized.

The series of martyrdom scenes on the sides of the altar display the V-folds of drapery that are so characteristic of Roger's style -- whether the three scenes of the martyrdom of St. Blaise of Sebaste or two scenes from the life of St. Felix of Aquileia on the long side (Figures 51, 52),⁴⁸ or the images of the baptism of St. Peter and the martyrdom of a monk on one short end (Figure 53), or a scene possibly illustrating the martyrdom of St. Paul on the opposite short end (Figure 54).⁴⁹ An especially clear example is provided by the martyrdom of Saint Blaise (Figure 51), where the cape of the soldier falls in a series of V's, and the movement of his legs are defined by an alternation of broad spaces and closely set, patterned lines. The variation of line so visible on the altar of Henry of Werl is also visible here: the line is a very thick in the upper part of the

⁴⁷ Theophilus, Book III, ch. lxxii, "Openwork;" Dodwell, *DDA*, as ch. 1 note 5: 130.

⁴⁸ Legner, ed., *Ornamenta Ecclesiae*, as ch. 1, note 14: C 34, I, 454; Lasko, *Ars Sacra*, as ch. 2, note 176: 165.

⁴⁹ Legner, ed., *Ornamenta Ecclesiae*, as ch. 1, note 14: C 34, I, 454; Lasko, *Ars Sacra*, as ch. 2, note 176: 166.

figure's cape, for example, but very thin in the figure's fore-arms. Von Falke also noted the similar patterns of ornament, finding, for example, the zig-zag decorating the columns on the side panels of the Henry altar in the background of the half-figure of Paul on the upper plate of the Abdinghof altar (Figure 41, 50).⁵⁰

Stylistic differences between the two altars are sharp, but as in the altar made for Henry of Werl, the basic forms are built on similar formulae. Figures on the Abdinghof altar, more dynamic, are not confined under arches as are the seated figures on the Henry altar, but this is because they are actors in narrative scenes. These differences have been seen as reason to separate the two altars in date or even authorship.⁵¹ The variations seem rather to reflect function and to demonstrate the range of modes to which workshop style could be adapted. Consistencies create a recognizable style that corresponds to the other objects of the group; discrepancies, then, may be the divergent forces of workshop practice, where the artisans follow similar practices, albeit in individual ways, in order to create a unified style. These links mirror connections between the religious institutions of the region.

As Willibald Sauerländer and, more recently, Robert Maxwell have shown, stylistic affinities could express social ties and function as an identifying mark of a community.⁵² The abbey of Abdinghof was founded by the Bishop Meinwerk, who had come to Paderborn from the abbey of Helmarshausen; in the early twelfth century, too,

⁵⁰ One recognizes the same fluting in enamel on the Gertrude altar.

⁵¹ Michael Peter has argued, for example, that the figures on the Abdinghof altar are more dynamic, and less flat, than the still figures of the Henry altar, and thus the Abdinghof altar should be dated to later than Henry altar, and may be a different hand: Michael Peter, "Neue Fragen und alte Probleme. Die beiden Paderborner Tragaltäre und der Beginn der Helmarshausener Goldschmiedekunst im 12. Jahrhundert," in Stiegemann and Westermann-Angerhausen, eds., *Schatzkunst*, as ch. 1, note 2: 80-96.

⁵² Willibald Sauerländer, "*Antiqui et Moderni* at Reims," as ch. 3, note 46; Robert A. Maxwell, *The Art of Medieval Urbanism: Parthenay in Romanesque Aquitaine* (University Park, PA: Pennsylvania State University Press, 2007).

monks and abbots were moving between the two abbeys. It is no surprise, then, that the Abdinghof altar seems to be a version of the Henry altar. Given Henry of Werl's interest in connecting himself to the lineage of Meinwerk, it is not unlikely that he played some part in the commissioning of the Abdinghof work, and hence the altar's boxlike form, much like the Henry altar and the altar of Gertrude. A second link to the abbey of Helmarshausen is through the abbot of Abdinghof himself. The altar was likely made under the abbacy of Hamuko, abbot from 1115 to 1142, who, like Meinwerk, had come to Abdinghof from Helmarshausen. Even though a different kind of object, carrying a different kind of image, the altar conforms to the pattern set by the Henry altar, and thus is connected visually to Henry himself and, by extension, to the great Meinwerk. Made at the abbey of Helmarshausen, in Roger's distinctive style, it also solidifies links between the two institutions. Much like the fragments of a saint's body distributed across abbeys and institutions could create a heavenly community,⁵³ so here distinctive features created a visual community.

Ornament too, could carry political or social valence and create ties between the abbeys and bishoprics of the region. This is suggested by the choice to include drawings of ornamental design in the Vienna manuscript, and the emphasis on technique, as opposed to iconography, in *On Diverse Arts*. While scholars have done much to show how the images could trigger memory, and play a role in the writing or re-writing of history, the ways in which ornament might serve this kind of function has been relatively

⁵³ Cynthia Hahn has written much to argue for interpicturelity and commonalities across saints' objects refer communities of saints in heaven; see Hahn, "Picturing the Text," as ch. 1, note 104; idem, "Interpicturelity in the Limoges chasses of Stephen, Martial, and Valerie." *Image and Belief*, ed. Colum Hourihane, *Index of Christian Art 3* (Princeton, NJ: Princeton University Press, 1999) 109-124.

little explored.⁵⁴ The “recognizability” of Rogerian ornamentation is especially clear in the case of the Enger cross. In its shape (though not its size), it mimics and emulates the forms of the great imperial crosses, such as the Lothair cross, made between 985 and 991, or the imperial cross in Vienna, begun under the Ottonian Emperor Henry II in 1024, with their arms in nearly equal length, with squared ends, and gem-encrusted panels (Figures 55, 56). This is also the shape of the Osnabrück cross, made at the end of the eleventh century for another bishop, Benno, who, like Henry, was appointed by Henry IV (Figure 57).⁵⁵ The Enger and Osnabrück crosses follow the tradition of imperial crosses, they reconfigure the Ottonian emperor’s cross to establish and assert the current emperor’s authority, and episcopal allegiance, in the era of the investiture controversy.

The gems on the Enger cross themselves carry past histories and evoke an imperial heritage. The bottom arm of the gem-encrusted front of the cross is set with an ancient Roman cameo, which Lasko has dated as early as the 4th century BCE (Figure 6),⁵⁶ while the left arm, is set with another ancient intaglio.⁵⁷ The significance of the re-use of gemstones on sacred objects has been well studied: Ilene Forsyth has made the argument that an accumulation of ancient gems on a medieval object evoked salvation history with Christianity as its culmination, while Thomas Head, in his studies of objects produced in Ottonian Trier, has seen the reincorporation of older materials on new

⁵⁴ Virginia Reinburg, “Remembering the Saints,” *Memory and the Middle Ages*, ed. Nancy Netzer and Virginia Reinburg (Chestnut Hill, MA: Boston College Museum of Art, 1995) 17-32; the literature on memory and medieval art has become vast; a good overview of the literature up to 2003 is Joan Holladay, “Tombs and memory: some recent books,” *Speculum* 78, no. 2 (2003) 440-450. Most of the literature on ornament and its functions has been in studies of Islamic art: see especially Gülru Necipoglu, as ch. 3, note 46.

⁵⁵ Benno was a strong supporter of the emperors Henry III and Henry IV, and even accompanied the latter during his repentance at Canossa in 1076. Edgar N. Johnson, “Bishop Benno II of Osnabrück,” *Speculum* 16 / 4 (Oct. 1941) 389-403. Here, 399.

⁵⁶ Lasko, “The Enger Cross,” as ch. 3, note 19: 84.

⁵⁷ Lasko, “The Enger Cross,” as ch. 3, note 19: 84.

objects as creating a material-based lineage of episcopal authority.⁵⁸ The gems on the Enger cross may similarly evoke the course of Christian history, but the placement of the cameo adds another layer of reference. An ancient cameo is similarly placed on the late tenth-century Lothair cross, an object kept in the imperial chapel in Aachen, a gift of its patron, the Emperor Otto III. The use of the cameo on the Enger cross can be seen to function as a claim to an Ottonian heritage, as much as, if not more than, as an evocation of a pre-Christian past. Moreover, just as the use of a Carolingian gemstone showing Lothair on the Ottonian cross made claims for continuity, so too did the reference back to an Ottonian cross in the early twelfth century make a claim for continuity and its concomitant prestige.

Even the technique of assembly appears to be an element capable of being consciously manipulated to carry significance. As Lasko has pointed out, details of the construction of the Enger cross hark back to imperial Ottonian examples: the empty field in the front of the cross is filled with a very fine gold filigree, into which are set groups of pearls that closely resemble the cross of Theophanu in Essen (Figure 58, 35), the crown of the Virgin, also at Essen, and the brooch in the Gisela treasure.⁵⁹ Likewise, the looped

⁵⁸ According to Forsyth, some objects were made specifically for the ancient or reused object, as is the case with the Herimann Cross (Figure 31); This cross, made for Herimann the Archbishop of Cologne, and his sister Ida, the Abbess of Santa Maria im Kapitol, also in Cologne, were the siblings of Theophanu. The cross incorporates as the head of Christ a piece of ancient spolia: a gem of lapis lazuli, carved with a portrait of Livella, the sister of the roman Emperor Claudius. According to Forsyth, the use of spolia on objects was especially important in the Ottonian period, as the Ottonians saw such incorporation of foreign objects as analogous to the culmination of Christian history in the Ottonian age, and the combinations implied a “transcendence of time and space as these references are aesthetically and tangibly linked together.” Ilene Forsyth, “Art with History: The Role of Spolia in the Cumulative Work of Art,” *Byzantine East, Latin West: art-historical studies in honor of Kurt Weitzmann* (Princeton: Princeton University Press, 1995) 153-162. William Heckscher, too, saw the reuse of pagan gems on Christian objects as a way of reconstructing them, christianizing them, and ‘saving’ them from decay. W. S. Heckscher, “Relics of Pagan Antiquity in Mediaeval Settings,” *Journal of the Warburg Institute* 1 / 3 (1938) 204-220; and along these lines, see Genevra Kornbluth, “The Alfred Jewel: Reuse of Roman Spolia,” *Medieval Archaeology* 33 (1989) 32-37 and Head, “Art and Artifice in Ottonian Trier,” *Gesta* 36 / 1 (1997) 65-82.

⁵⁹ Lasko, “The Enger Cross,” as ch. 3, note 19: 85-86.

and trilobed wire clasps that set central stones of the Enger cross are just like the those that fix the central crystal on the cross of Theophanu and the stones decorating the sides of the brooch.⁶⁰ The beaded pearls that frame the larger stones on the Enger cross can likewise be seen on the borders of the Essen crown.⁶¹ As Lasko has shown, these fittings are nearly impossible to distinguish.⁶² The quotation of a process of assembly is unusual; it shows that the distinctive characteristics of the “style” of Roger, and his practice of alluding to imperial precedent, extend even to the minutiae of gem settings. Ornamental patterns, like those drawn in the Vienna manuscript, seem certainly capable of serving such a memorial or identifying function. Filigree patterns on the back panels of the Enger cross are in fact quotations of and variations on patterns discovered in older objects (Figure 6a). A heart-shaped filigree pattern on the Enger cross is encountered on the panels of the central arm of the cross of Theophanu, and a tiny band that binds the strands of the filigree where they meet is visible in the top end unit of the latter.⁶³ Still it is significant that the filigree panels on the reverse of the Enger cross are more ornate than those on the Theophanu cross: now hearts and trilobes are placed within larger heart shapes, and scrolls and lobes fill up inner spaces.

Analysis of a bookcover in Trier attributed to Roger shows how Roger may have been using eleventh-century images and ornament as a source for his own style. The cover contains four repoussé figures of the Evangelist symbols, all executed in silver gilt and filling the spaces between the arms of a gem-studded cross. The kneeling figure of the Angel of Matthew seems to mimic the angel carved on the central gem of Enger

⁶⁰ Lasko, “The Enger Cross,” as ch. 3, note 19: 85-86.

⁶¹ Lasko, “The Enger Cross,” as ch. 3, note 19: 85.

⁶² Lasko, “The Enger Cross,” as ch. 3, note 19: 86.

⁶³ Lasko, “The Enger Cross,” as ch. 3, note 19: 86.

cross, holding a book out while turning his head in the opposite direction.⁶⁴ This way of rendering Matthew's symbol is seen in the eleventh-century Gospel book within the Trier cover, and the star around the central stone of the bookcover is likewise an evocation of the painted halo of Luke within.⁶⁵ Ornament too hearkens back to the metalworking tradition of the region of Trier and the nearby abbey of Echternach, whose workshop is known for its Codex Aureus, a bookcover commissioned by Theophanu, and the reliquary of St. Andrew's sandal, made around 980 and still kept in the treasury of the Cathedral at Trier, with its cloisonné enamel cells of linear designs (Figures 59, 60). Both bookcovers display a set of repoussé images framed by cloisonné enamels and gems, but more striking is that the cross shape in the enamel on the horizontal arm of the Trier bookcover is the same as that on the vertical arm of the Codex Aureus, while the series of outward turning, scrolls in the enamels on the Trier cover seem to be merely a turning-inside out of the rounded heart shape of the enamels on the Codex Aureus, and are just like those engraved on the Modoaldus cross, and made in filigree on the Enger cross. Lastly, the palmette pattern on the Codex Aureus, with its upturned leaves bound by a circle, is quite close to the drawing in the Vienna manuscript, with its series of palmette shapes.

Drawing on imperial traditions of metalwork, figural and ornamental elements of the bookcover create a new visual lineage and a recognizable style, which can be associated with an artist and is endowed with historical clout. With these multiple links, it seems more than likely that the Roger remembered at Echternach, was indeed Roger of

⁶⁴ Trier Cathedral Treasury MS 139, fol. 14v; and Getty Museum MS Ludwig II 3, fol. 7v. See Lasko, "The Enger Cross," as ch. 3, note 19: 86.

⁶⁵ The form in fact seems to become standard; it is used in the Gospels of Helmarshausen, a manuscript from the 1120s, now at the Getty Museum, where it is MS Ludwig II 3.

Helmarshausen, and it may be that it is the Trier bookcover for which he is remembered there. The bookcover then, may be early evidence for the ornamental motifs that recur throughout the rest of the body of Roger's works.

A survey of the works assigned to Roger shows that given patterns are used again and again, in distinct variations. The heart-shaped motif used on the Modoaldus cross, attributed to Roger and now in the Schnütgen Museum in Cologne, (Figure 8) is engraved in bronze and gilded, rather than applied as filigree. The heart-shaped scrolls contain eight-pointed stars and lobed flowers. Simpler than both of these is the heart-shaped filigree filled with interior lobes that borders the top of the Henry altar (Figure 61). Here, the pattern is more symmetrical, more rounded and, as on the Theophanu filigree, the ends of each strand are beaded, while, as on the Enger cross, intersections of filigree strands are connected by small links.⁶⁶ These variations on the motif of the heart-shaped lobe, manipulated into three different forms of varying complexity give evidence of workshop practice, demonstrating how older patterns were studied and reconfigured for new and resonant use.

The closeness in the similarities in ornamental patterns and technique, even down to minute details, suggests the creation and exchange of models and designs, passing from generation to generation, or from workshop to workshop. Such elements as the nearly identical gem settings and filigree on the Enger cross, the Henry altar, and objects owned by Theophanu and Gertrude, or the engraved patterns of the arcade, zig-zagged fluting, and use of niello in the openwork arches of the Henry altar and on the Gertrude altar indicate conscious imitation of older patterns. The similarities in ornament not only

⁶⁶ A similar pattern to this, though engraved, can be seen on the reverse cross of the abbess Mathilde and Duke Otto, another gift to Essen, made between 973 and 982 (Figure 30) making the links between these workshops ever stronger.

connect objects made in Helmarshausen to the imperial Ottonian past, but they also emphasize the intertwined operations of the abbeys and patrons for whom Roger and his shop did work.

Local Networks: From Politics, to Trade, to Art Object

Social ties, it seems, could be made manifest through similarities in style and ornament across objects. These are the visual trace of the circulation of artists and the practicalities of artistic production within a network of religious institutions, most of whom, it emerges, were deeply involved in the metals trade. Much of an abbey's income came from the ownership of property, and, as is evident in the contract of Henry of Werl, the production of art objects could itself be source means through which to gain additional property. As suggested by Clemens, much of the dispute that the Paderborn document was trying to resolve concerned rights to property and the income gained from revenues accrued.⁶⁷ Land and art objects, particularly precious art objects, were closely related; both were a source of income and prestige.

Most of the religious houses with which Roger or his works has been linked – Helmarshausen, Corvey, Stavelot, and Echternach in particular– appear to have been wealthy land owners and all played an important part in local and regional commerce. This commerce was heavily reliant on the mining of and trade in precious metals, the very substances which enabled the production and trade of highly precious objects like the Henry altar or the Enger cross. Some of the imperial abbeys of the region, like Helmarshausen or Corvey, had long histories as imperial mints, and it is from this history

⁶⁷ Bayer, “Der Paderborner Dom-Tragaltar,” in Stiegemann and Westermann-Angerhausen, eds., *Schatzkunst*, as ch. 1, note 2 and ch. 3, note 23: 65-77.

that their participation in the metal trade appears to have originated. Helmarshausen, for example, was assigned revenues from a toll, had rights to a market – given by the emperor Otto III in 997 – and the right to mint coins. While the earliest coin to survive dates from 1050, there is evidence that by the later twelfth century the mint was big enough to support the import and forging of silver from Scotland. The nearby abbey of Corvey had held minting rights since 883.⁶⁸ The abbey of St. Pantaleon, meanwhile, was located in the midst of Cologne, the major urban center for the trade of metals, while abbeys like that of Abdinghof at Paderborn, were located at the junction of routes to the mines of central Germany and the main road to Cologne .

Cities on the Rhine-Meuse and Sambre rivers had been connected by trade and shared mining interests from Roman times; these gained significant economic power under the Ottonians. The Meuse-Sambre river route provided a throughway between northern Gaul and the Rhine, from Reims to Cologne, and the combination of mines, mints, and access to fluvial transport led to enrichment of the region's cities, as well as its ecclesiastical and monastic institutions. By the fourth century Tongeren had been made a bishopric, but by the sixth, Bishop Monulphus moved the seat of the diocese to Maastricht, by then a large urban center located on the Meuse and at the intersection of trading routes. By the Merovingian period, other cities on the Meuse, including Dinant, Namur, and Huy were all monetary centers, with those of Huy and Maastricht the largest in the region. Seventh-century coins minted in Huy and Dinant have been found in

⁶⁸ Peter Berghaus, "Die Münzprägung westfälischer Stifte und Klöster," *Monastiches Westfalen: Klöster und Stifte, 800-1800*, ed. G. Jászai, H.K.L. Schulze, and J. Luckhardt, exh. cat. (Munster: Westfälisches Landesmuseum für Kunst und Kulturgeschichte, 1982). 455-457.

England and Scandinavia.⁶⁹ The minting industry of the Meuse grew under Charlemagne, with additional mints established at Liège, St.-Trond, and Aachen. Evidence of surviving coins suggests that the Mosan mints were some of the most productive of the Empire.⁷⁰ Although briefly interrupted by Norman invasions in the mid-ninth century, Huy in particular was an economic force well into the Ottonian period, minting coins for a string of emperors, including Charlemagne, Louis the Pious, Lothair, Charles the Bald, Louis II (or Louis III), Louis the Child, and later, Otto I and Conrad II.⁷¹ Coins from these later periods can be found as far away as the eastern Slovakia, northern Scandinavia, Iceland, Poland, and Russia.⁷²

The region was the primary source for mining and trade in metals – metals of the kind used in objects like those made by Roger of Helmarshausen. Silver and copper mines were opened in the Harz mountains under the Ottonians, and the products were brought to Cologne to be traded. By the twelfth century the trade network extended across Germany and Belgium and into England and northern France: tin was being imported from England, zinc from Belgium, copper and silver from Germany; the major center for the trade in all these metals was Cologne, and the Rhine and Meuse rivers were

⁶⁹ Felix Rousseau, *La Meuse et le pays Mosan en Belgique, leur importance historique avant le XIIIe siècle*, extrait des annales de la Société Archéologique 39 (Namur: Société Archéologique et Maison d'éditions ad. Wesmael-Charlier, 1930). See also Maurice Lombard, "La route de la Meuse et les relations lointains des pays mosans entre le VIIIe et le XIe siècle," in *L'Art Mosan, journées d'études, Paris, février 1952*, ed. Pierre Francastel (Paris: A. Colin, 1954) 9-28, and Germain Faider-Faytmans, "Les arts du métal dans la vallée de la Meuse du Ier au Xe siècle," in the same volume, 29-37. For Huy in particular see Hektor Ammann, "Une importante contribution suisse à l'histoire hutoise: Huy sur Meuse dans l'économie médiévale," *Annales du cercle Hutois des sciences et beaux-arts*, 1954; and Andre Joris, *La ville de Huy au Moyen Âge, des origines à la fin du XIVe siècle* (Paris: Société d'édition "Les belles lettres," 1959).

⁷⁰ Ammann, "Huy sur Meuse," as ch. 3, note 69: 8; see also Joris, "La ville de Huy," as ch. 3, note 69: 88-89.

⁷¹ Ammann, "Huy sur Meuse," as ch. 3, note 69: 8-9; Rousseau, "La Meuse," as ch. 3, note 69: 71.

⁷² Ammann, "Huy sur Meuse," as ch. 3, note 69: 9-11; Rousseau, "La Meuse," as ch. 3, note 69: 85-89.

major throughways.⁷³ The cities of this region, especially Cologne, Liège, Huy, and Maastricht, grew increasingly urban and mercantile in the course of the twelfth century, and wealthy commercial burghers were important patrons. The abbey of regular canons at Neufmoutier, in Huy, for example, was founded by burghers of the town, and earned its income from tolls on the river Meuse.⁷⁴ The city of Paderborn was a major trading point between the Rhine and the Weser, with the abbey of Corvey situated on the latter, and Helmarshausen on the Diemel, near its junction with the Weser. The region of Helmarshausen, Corvey, Paderborn, and Hildesheim, therefore were on the eastern edge of the trading corridor of the Rhine and Meuse, but were significant for their placement on the east-west route that, from the eleventh century onward, brought silver and copper from the Harz mountains to Cologne.

Because the making of metal objects often required a combination of materials, artistic production was reliant on the availability of special metals. The Mosan cities, for example, were particularly powerful because they had ready access to zinc. This metal, needed to make alloys of bronze, could be found only in Belgium and Lorraine: the mines of Moresnet, in particular were known to yield high quality zinc, and the location of these deposits near the city of Visé, itself on the Meuse between Liège and Maastricht, allowed for the growth of the trade.⁷⁵ In addition, the region of the Meuse contained a number of iron deposits. Copper was mined in the Harz mountains, at Goslar, and tin

⁷³ By the thirteenth century the Harz mines were significant enough for Albertus Magnus to visit them, and write about his experience, and the nature of the metals there; see the article and excerpts printed in Dorothy Wyckoff, "Albertus Magnus on Ore Deposits," *Isis* 49 / 2 (Jun. 1958) 109-122.

⁷⁴ The most significant study of the economy of the Mosan region, and of the larger region of the Rhine in the Middle Ages is that of Rousseau, *La Meuse*, as ch. 3, note 69, and Lombard, "La route de la Meuse," as ch. 3, note 69. For Huy in particular, see Ammann, "Huy sur Meuse," as ch. 3, note 69. For the abbey in particular, its history and the documents relating to it, see Ursmer Berlière, ed. "Abbey of Neufmoustier, Huy," *Province de Liège, Monasticon Belge* 2 (Maredsous: Abbaye de Maredsous, 1928) 283-299.

⁷⁵ Rousseau, *La Meuse*, as ch. 3, note 69: 105.

came from England, especially Cornwall, where it was mined from the eleventh century onward.⁷⁶

Because of the difficulty of extracting zinc, and because of the convenience of the river routes, the center for the trade of all these metals was the valley of the Rhine and Meuse, and it is from such trade and assets that the economic might of the cities grew in the tenth and eleventh centuries. There is evidence that merchants from Huy, Liège, and Nivelles traveled to the markets in London and paid taxes in Koblenz.⁷⁷ While the production of what is now called *dinanderie*, small bronze or brass objects from the region around Dinant, dates back to the Merovingian and Carolingian periods, the industry grew quickly in the eleventh century.⁷⁸ From 983 there is evidence that a fair was held at Visé, and through the tenth and eleventh centuries the presence of Mosan-made metal objects, such as cauldrons and basins, is noted at the fairs in Cologne.⁷⁹ Cologne, with its proximity to the Meuse, the North Sea, and, via the Rhine and the Main, a southern and eastern route toward Frankfurt and Nuremberg became in the eleventh century a commercial and trading center. Hildesheim was at the foot of the Harz mountains and on the trade route to Cologne, where copper was traded, and were representatives of the Mosan cities received special privileges.⁸⁰ The proximity of the Mosan cities to the North Sea also gave them easy access to trade with England and the

⁷⁶ Rousseau, *La Meuse*, as ch. 3, note 69: 106-107; Konstantin Höhlbaum, *Hansisches Urkundenbuch* (Leipzig: Halle, 1876) III, 386-387, and I, 3. See also Stanislas Bormans, *Cartulaire de la commune de Dinant*, documents inédits relatifs à l'histoire de la province de Namur, 7 (Namur: Wesmael-Charlier, 1880-1908): I, 4.

⁷⁷ Ammann, "Huy sur Meuse," as ch. 3, note 69: 12-13.

⁷⁸ Rousseau, *La Meuse*, as ch. 3, note 69: 104.

⁷⁹ Rousseau, *La Meuse*, as ch. 3, note 69: 90.

⁸⁰ Rousseau, *La Meuse*, as ch. 3, note 69: 106; Konstantin Höhlbaum, *Hansisches Urkundenbuch* (Leipzig: Halle, 1876) III, 386-387, and I, 3.

acquisition of tin.⁸¹ For these many reasons, it was the region of the Rhine and Meuse, precisely where Roger most likely received his education and training, that was the center for the trade in metals through the eleventh and twelfth centuries.

Metalworkers in particular benefited from the flow of metals through the region, and there is evidence that Roger was not the only artisan to circulate among abbeys. One of the famous artists of this region roughly contemporary with Roger is Godefried of Huy, who may have produced an early twelfth-century censer now at the Cloisters in New York (Figure 62). As is the case with Roger, much has been done to try to reconstruct the life of Godefried and attribute works to his hand, including enamels made for the abbey of Stavelot.⁸² Godefried is known primarily from a late twelfth-century necrology of the abbey of Neufmoutier in Huy. The necrology also lists artisans such as drapers and millers, but the entry for Godefried is much longer than the others, setting out an illustrious artistic career: “Godefried, goldsmith, our brother ... was burgher of Huy, later he became a canon and our brother. He was not superseded in the art of metalwork,

⁸¹ Rousseau, *La Meuse*, as ch. 3, note 69: 107; Hohlbaum, as ch. 3, note 78: III, 386. See also Stanislas Bormans, *Cartulaire de la commune de Dinant*, as ch. 3, note 76: I, 4.

⁸² Philippe George, “Le plus subtil ouvrir du monde: Godefroid de Huy, orfèvre Mosan,” *Cahiers de civilisation médiévale* 39 (Oct-Dec. 1996) 321-338; Theo Jülich “Godefroy von Huy, der Goldschmied G und vergleichbare Fälle: Zur Problematik der Forschung zu Künstlerbiographien im hohen Mittelalter,” in Beck and Hengevoss-Durkop, eds., *Studien zur Geschichte der europäischen Skulptur*, as ch. 1, note 18: 193-203; for the enamel work attributed to his hand, or related to his work, see William H. Forsyth, “Around Godefried de Claire,” *Metropolitan Museum of Art Bulletin*, 24 / 10 (1966) 304-15; for an attribution of his hand to the shrine of St. Vitonus, in Verdun, see Floridus Röhrig, “Godefridus von Huy in Verdun,” *Aachener Kunstblätter* 32 (1966) 83. Past scholarship has also tried to link Godefried to Abbot Suger, see, Marcel Laurent, “Godefroid de Claire et la croix de Suger a l’abbaye de Saint-Denis,” *Revue archéologique* 19 (1924) 79-87; and from a fourteenth-century source he is attributed a shrine of Saints Mangold and Domitian, Jules Helbig, “Les châsses de Saint Domitian et de Saint Mengold de l’ancienne collégiale de Huy. Le reliquaire offert en don expiatoire à la cathédrale de Saint-Lambert de Liège; les auteurs et l’histoires de ces reliquaires,” *Bulletin de L’Institut Archéologique Liégeois* 13 (Liège: H. Vaillant-Carmanne, 1877) 221-244; as mentioned above, he has also often been connected to the artist in the letter from Abbot Wibald, as discussed by Fidel Rädle, “Abt Wibald und der Goldschmied G.,” *Mittelateinische Jahrbuch* 10 (1975) 74-79; for an overview of the issues of attribution surrounding Godefried, see Lasko, “Germany: Roger of Helmarshausen,” *Ars Sacra*, as ch. 2, note 176: 186.

by any artist of his time; he made a large number of reliquaries, shrines of saints in different lands, vases and other objects for the use of kings.”⁸³

The life of an artist like Godefried gives evidence of the increasing commercialization in the region, which affected art production as well as urban life. The growth of trade fairs and markets such as those in Cologne in the eleventh century encouraged urban commerce and shifted the weight of the industry from the rural areas in which the mines were located to urban centers. Representatives of Huy or Liège, for example, would buy their copper in Cologne, rather than traveling to the mines of Harz itself.⁸⁴ Cities grew accordingly. In the tenth century there is evidence of only one bridge crossing the Meuse, at Maastricht. In the eleventh and twelfth centuries, bridges were built at Givet, Dinant, Namur, Huy, Liège, and Visé, all within a distance of one hundred kilometers.⁸⁵

Trading networks relied upon relations among cities, abbeys, and mines. Unlike Neufmoutier, Helmarshausen was Benedictine, and it was also located in more rural situation, but it too played a role in the commerce of the region: as we have seen, it stood to gain property and tithes in exchange for the production of precious objects. Abbeys were often owners of both of land and of mines. The abbey of Florennes held the rights to

⁸³ J. Alexandre, “Nécrologe de l’abbaye de Neufmoustier, de l’ordre des chanoines réguliers de Saint-Augustin, à Huy,” *Annales du cercle Hutois des sciences et des beaux-arts* V (1883): 280-303, VI (1884): 101-143; here VI, 135, is the French translation: “Commemoration de Godefroid, orfevre, notre frere. Ce Godefroid orfevre etait bourgeois de Huy; plus tard il devint chanoine et fut notre confrere. Cet homme ne le cedait, dans l’art de l’orfevrerie, a aucun artiste de son epoque; il fit un grand nombre de reliquaires, chasses de saints en divers pays, des vases et autres objets a l’usage des rois. Il a fabriqué, pour l’église de Notre-Dame a Huy, deux reliquaires, un encensoir et un calice d’argent; et pour notre eglise une cassette ornee d’un travail magnifique dans laquelle il a placé un articulation de saint Jean-Baptistes, recue par lui en don du seigneur Almaric, eveque de Sydon, pour lequel il avait fait des vases charmants.” See also Lasko, *Ars Sacra*, as ch. 2, note 176: 186.

⁸⁴ Rousseau, *La Meuse*, as ch. 3, note 69: 104-105. Höhlbaum, *Hansiches Urkundenbuch*, as ch. 3, note 76: III, 387; Bormans, *Cartulaire du Dinant*, as ch. 3, note 76: I, 20.

⁸⁵ Rousseau, *La Meuse*, as ch. 3, note 69: 83.

a mine as a part of its property holding,⁸⁶ and the abbey of Floreffe traded its rights to the mines of Prüm for those at Ardoisières.⁸⁷ The abbey of Corvey was similarly endowed: the free use of the mines at Monte Eresburg was the subject of a privilege dating to 1150, given by Conrad II to Wibald of Stavelot, then also custodian of Corvey. What is most notable here is that the privilege includes not only the mining but also the refining and use of the metals attained for the abbey's own purposes:

... through you, of the church of Corbei, we grant, give over and confirm by the present writing, and it is permitted for you and your successors, apart from the objection of any person, in the same mountain, to dig all metals, which are to be found, to mine and to refine, and to freely apply for your use and that of your brothers, so that so much better the church of Corbei could serve so much the divine things as the things of the kingdom.⁸⁸

Mines were an important part of property holdings. From at least 1250, mines were opened in the Berg district, east of Cologne, by Archbishop Conrad von Hochstaden to raise money for the Gothic rebuilding of Cologne Cathedral. The archbishopric also

⁸⁶ Rousseau, *La Meuse*, as ch. 3, note 69: 100-101. Ursmer Berlière, *Documents inédits pour servir à l'histoire ecclésiastique de la Belgique* (Maredsous: Abbaye de Saint-Benoît, 1894) I, 30-31. The rights to this mine fell under dispute when Hugues de Rumigny, seigneur of L'entre-Sambre-et-Meuse, claimed it for himself, though he later renounced his claim.

⁸⁷ Rousseau, *La Meuse*, as ch. 3, note 69: 117-118. V. and J. Barbier, *Histoire de l'abbaye de Floreffe de l'ordre de Prémontré* (Namur, Wesmael-Charlier, 1880) II 28, no. 43.

⁸⁸ Conradus II Germaniae, *Diploma XXIX*, PL 189, cols. 1496d - 1497a. *Conradi regis diploma pro Wibaldo abbate.--Fodinas argenti et metallorum in monte Eresburg permittit liberatas.* (Anno 1150.) *Conradus, Dei gratia Romanorum rex secundus, Wibaldo Corbeiensi abbati suisque successoribus regulariter ordinatis in perpetuum. Venas metalli, videlicet auri, argenti, cupri, plumbi et stanni, et omnem pecuniam, sive rudem, sive formatam, quae intra montem Eresburg, qui Corbeiensi Ecclesiae jure proprietario pertinere noscitur, latet, tibi, et per te Corbeiensi Ecclesiae concedimus, damus, et praesenti scripto confirmamus, et liceat tibi et successoribus tuis, absque ullius personae contradictione, in eodem monte fodere, omne metallum, quod inventum fuerit, eruere et conflare, tuisque et fratrum tuorum usibus licenter aptare, ut tanto melius possit Corbeiensis Ecclesia tam divinis quam regni rebus subservire. Data est haec monumenti chartula apud Wizeburg anno Dominicae Incarnationis 1150, indictione XIII, propter servitium fidele supra scripti abbatis.*

owned mines at Ems, further up the Rhine, called the “Cologne Pits.” These were given as a loan by Frederick II.⁸⁹

The ownership of mines was a highly valued right that came under the control of imperial patrons such as Conrad II or Frederick II and could be traded for advantage. The production of art objects in locally available metals played its part in local economies, especially when relics were involved. The Paderborn charter, showing an equivalence between property rights and precious objects, may have been speaking to this as well.

The Modoaldus Cross: Materiality, Ornament, and Memory

In this particular twelfth-century context, where abbeys were implicated in the production of metals as well as the production of metal objects, I suggest that we are right to look at the objects in terms of a dual valence -- as material, with implications of wealth and access, and as form, with value added through the employ of recognizable stylistic elements associated with a local artisan. Such is evident through analysis of the Modoaldus cross, Probably datable after 1107, the cross was likely made for the relics of St. Modoaldus, Archbishop of Trier (614/15 – 647/649) and advisor to King Dagobert of France, when they were transferred from Trier to Helmarshausen.⁹⁰ Like the Enger cross, the Modoaldus cross has square panels at the end of each arm on which the evangelist symbols are depicted, as well as a central panel, now round rather square, which bears an image of the lamb of God; it also displays an image of St. Modoaldus on the lower arm.⁹¹ As typical for the style of Roger, the drapery on the figures is rendered by means of

⁸⁹ Dorothy Wyckoff, “Albertus Magnus on Ore Deposits,” as ch. 3, note 73: 112.

⁹⁰ Creutz, “Aus der Werkstatt des Rogerus,” as ch. 3, note 34: 359-361. *Translatio S. Modualdi*, MGH SS 8, 223ff.

⁹¹ Inscriptions on the cross naming the saint and referring to the Lamb of the Apocalypse attest that this *crux gemmata* probably held a relic of the early medieval bishop. Apocalypse 5:12; Legner, ed. *Ornamenta Ecclesiae*, as ch. 1, note 14: I, C44.

closely set drapery lines juxtaposed with blank spaces, especially visible on the eagle, where the spaces of the animal's shoulders and upper chest are clearly differentiated from the falling robe around its neck and the lower edge of the drapery as it recedes beneath the scroll.

The material of this relic-bearing cross seems to have carried meaning through its display of ornament. The cross is made of gilded copper, and engraved with Roger's signature heart-shaped leaves filled with palmettes, yet it bears no filigree; it seems, in fact, to be a less expensive version of the Enger cross. It is linked with Roger's more precious works through a shared ornamental vocabulary.

The ornamental structure of the Modoaldus cross is very close to that found on the reverse of the Frankfurt crucifix, now in the Museum für Angewandte Kunst, probably made shortly after the Enger cross, between 1107 and 1122 (Figure 7). It is a small cross bearing a cast bronze figure of Christ, with niello plaques containing images of the evangelist symbols at the end of each arm. The reverse of the cross contains the same cross in square pattern lining the sides of the end panels as found on the Modoaldus cross, a similar central medallion bearing the Lamb of God, and a running heart-shaped pattern in the center of the arms of the cross closely resembling that on the Modoaldus cross, and on the Henry altar. The folds of the drapery of the Christ figure, as well as the ornamental patterns of the reverse of the cross, are typical of the hand of Roger.⁹²

Technique changes slightly, but there is consistency in ornamental pattern from the Enger cross to the Modoaldus cross to the Frankfurt cross. The material changes and makes an object unique; the ornament stays roughly the same. The value placed on this

⁹² This led to the first attribution of the cross to Roger by Creutz, "Aus der Werkstatt des Rogerus," as ch. 3, note 34.

kind of consistency may help to explain why Theophilus never describes the precise forms elements should take, even though his instructions for technical processes are so specific and detailed. Ornament may well have been a proprietary element, a manipulation of material that tied an object to specific makers, to specific producers of metals, to specific workshops.

In view of the commercial and political connections across monasteries, we may understand that commonalities in artistic style could also serve as the touchstone for consolidating ties among the religious institutions in the region. The art object that could be recognized by an educated viewer as having been made by a known artisan, Roger of Helmarshausen, who deftly incorporated reference to revered works of the past, would have particular resonance. The memory of the current and past connections by visual means finds analogies in the memory of the artisan as turns up in the necrologies, in the insertion of ornamental patterns in the Vienna manuscript, in the Paderborn contract. The continued presence of and reference to Roger's "hand" even after his death, at St. Michael's, Hildesheim, an abbey with which he was known to have association, continues the story.

The Legacy of Roger and the Idea of Roger: From Tradition to Memory

The relations between the abbeys of Helmarshausen and those at Hildesheim exemplify how abbey connections, and artistic connections, could be passed from generation to generation. Objects made at Hildesheim in the later twelfth century, after Roger's death, are often discussed as belonging to the larger circle of Roger, yet the correspondence seems to have begun much earlier, and initially to have gone in the reverse direction. The

side panel showing the martyrdom of Felix of Aquileia on the Abdinghof altar shows the sun's rays, falling upon the soldier in a triangular form (Figure 52), just as they do on the earlier bronze doors of Hildesheim Cathedral (c. 1015) in the scene of the offerings of Cain and Abel, where the hand of god reaches down through the burning sun (Figure 63). In a similar case, Roger seems to have reconfigured the layered scrolls that form the hill upon which Eve sits, laboring for her children, when he created the borders of the medallions on the Henry altar, or the scrolls over the arch of Saint Philip on the side of the Abdinghof altar. The same pattern is visible in the bronze column at Hildesheim (c. 1015), where it forms the ground in the miracle scenes of Christ (Figure 64). These elements, while possibly passed on in pattern books, seem to be more a mode of rendering than simply a design and thus better grasped on-site. The parallels might suggest an early connection between the two abbeys, and an awareness of artistic heritage on the part of a twelfth-century artisan.

This correspondence, but in the other direction, becomes concrete, and perhaps more personal, in the later twelfth century, when similarities suggest the movement of objects and the continuation of the new "Helmarshausen style" at Hildesheim. Godehard succeeded the bishop Bernward at Hildesheim in 1022, and was canonized in 1131; the shrine commissioned to hold his relics is acknowledged to be closely related to works of the Helmarshausen atelier.⁹³ Close parallels between the figure of St. Matthew on the Godehard Shrine and the Angel figure on the Enger cross, make it highly likely that the

⁹³ There may have been a similar situation at the nearby abbey of St. Michael's, where a bookcover was commissioned by Frederick, abbot of St. Michael's in Hildesheim in the mid-twelfth century; a mid-twelfth century portable altar from Hildesheim now in the British Museum shows similarities as well. Georg Swarzenski, "Aus dem Kunstkreis Heinrichs des Löwen," *Städel-Jahrbuch* vii-viii (1933) 241-397; and S. H. Steinberg, "A Portable Altar in the British Museum," *Journal of the Warburg Institute* 2/1 (Jul. 1938) 71-72; Ursula Mende, "Romanische Bronzen. Hildesheim und sein Umkreis," *Abglanz des Himmels*, ed. Michael Brandt, exh. cat. (Hildesheim: Schnell Steiner, 2001) 197-209; esp. 200ff; and for the Godehard Shrine, see cat. no. 4.12, 185-186.

artist had come from Helmarshausen, armed with the traditions of Roger's workshop. Ornamental elements, and techniques for rendering drapery, are precisely those elements which can be taught, and are easily transferred. The choice of an artist from Helmarshausen, and subsequent conscious use of ornamental elements associated with that house in Hildesheim, may suggest that an interest in preserving a lineage of artistic practice corresponded to proclaim an abbatial heritage. This may have been especially effective in a time when the abbeys of St. Michael and St. Godehard were rivals as each abbey sought to have its founders canonized: Godehard was canonized in 1131, while Bernward, despite the efforts of the monks of St. Michael, was not canonized until 1193.

Abbey histories and contracts such as that surviving for the altar of Henry of Werl, show that the abbeys had a serious interest in establishing their position within a long chronology of monastic continuity, prestigious patronage, and Christian history. Landed property and revenues, and by extension, art objects, were commodities and these could serve in negotiations among abbeys. It is possible therefore to see the mining of metal and the production of precious objects made from these same materials, as extensions of institutional powers and ambitions. The ability to acquire and manipulate such materials spoke to an abbey's influence and significance as a force in the region. The artists, by deploying the signatory marks of workshops could create a visual reference which could enhance prestige or tie monasteries together in financial as well as spiritual terms.

From this perspective certain styles can be read across objects as distinguishing marks of institutional networks or signs of allegiance. We might take the case of the metalworker Reiner of Huy, like Godefried, a monk of Neufmoutier. Reiner's bronze

font in Liège, made around 1118, is well known for its classicizing style, with its softly molded figures (Figure 65). His style stands in sharp contrast to Roger's angular and linear forms. Just as Roger is remembered in the document of Paderborn as maker of an altar and cross, and as Godefried is praised in the necrology of Neufmoutier for shrines, reliquaries, and vases, so too Reiner is remembered in a later document, dated 1402, which recounts how the bishop commissioned the font from Reiner, "goldsmith of Huy," which he made, covered in "marvelous images."⁹⁴ The artist, like Roger, created a trademark style, which could be extended, via the trade of objects, from the monastic community or the city in which he was working to the region at large. Visual stylistic elements could forge a visual identity that could even be transmitted across generations.

How we understand Roger's life and movements as an artist, then, might be reevaluated in these terms. Freise's arguments are accepted by most scholars, his reconstruction of Roger's life and peregrinations has superseded earlier suggestions that Theophilus was Greek, was writing about Byzantine artistic techniques in Europe, was living in the Carolingian period, or situated in southern Germany.⁹⁵ Yet the specific chronology of Roger's life must remain rough, particularly because the dates of some of the works assigned to him, like the early Modoaldus cross, remain uncertain.⁹⁶

⁹⁴ *Chronique liégeoise* de 1402: "Alberonis Leodiensis episcopi iussu Renerus / aurifaber Hoyensis fontes eneos in Leodio fecit / mirabile ymaginum varietate circumdatos, stantes / super duodecim boves / diversimodo se habentes." In Eugène Bacha, ed., *Chronique Liégeoise de 1402*, Commission royale d'histoire (Brussels: Librairie Kiessling, 1900) 131.

⁹⁵ Dodwell, *DDA*, as ch. 1 note 5: Introduction to *On Diverse Arts*; Degering, "Theophilus, qui et Rogerus," as note 12, and Theobald, *Technik des Kunsthandwerks*, as ch. 1, note 84, thought Theophilus was Byzantine; Lessing, *Vom alter der Oelmalerey*, as ch. 1, note 1; had originally dated the text to the 10th century, making him a contemporary of Tuotilo.

⁹⁶ Lasko in particular suggests different dates from those of Freise, see Lasko, "Roger of Helmarshausen," in *Ars Sacra*, as ch. 2, note 176; idem, "Anthropomorphic Evangelist Symbols," as ch. 2, note 176; Peter Lasko, "Roger of Helmarshausen, Author and Craftsman," as ch. 1 note 12. Difficulties in dating are particularly true for objects such as the Modoaldus cross, which, as a portable object, need not indicate Roger's presence at Helmarshausen.

Dating and localizing portable objects is fraught with difficulty, but it is also this portability that may suggest new avenues of meaning.⁹⁷ The problems of dating are clear: if Roger spent a part of his life at St. Pantaleon, and the procession of the relics of St. Modoaldus stopped at St. Pantaleon in Cologne, is it possible that the Modoaldus cross was made to celebrate the Cologne event, rather than that of Helmarshausen? Similarly, the manuscript under the Trier bookcover is usually dated to c. 1100, making it evidence that the Helmarshausen workshop was producing manuscripts before the arrival of Roger, and had established a unique style, working in the Saxon tradition, at an early date.⁹⁸

But another story has emerged from the documentary and visual evidence, one in which the memory of an artisan-monk who developed a recognizable style from an earlier artistic heritage is cultivated and preserved. Our starting point was the mid-twelfth century copy of the text, made some time after Roger of Helmarshausen's death, which identifies the author "Theophilus" as Roger. It is in many ways a surprising manuscript. Made of varying quality of parchment, it was nonetheless not hastily put together. Written in a cramped, one-column format, it was transcribed continuously by one hand throughout in an archaizing script suggesting a connection to Paderborn. It also contains two inserted pieces of parchment containing panels of drawn ornament – and ornamental pattern, as has been shown, is precisely the element that most often gets traded, changed, and adjusted to new purposes, even while retaining a level of recognizability. The manuscript, I argue, attempts to enshrine a memory of Roger, and assert his prominence.

⁹⁷ For the problems of studying portable objects and their origins, see Eva R. Hoffman, "Pathways of Portability: Islamic and Christian interchange from the tenth to the twelfth century," *Art History* 24 / 1 (2001) 17-50; Hoffman, "Christian-Islamic Encounters on Thirteenth-Century Ayyubid Metalwork: Local Culture, Authenticity, and Memory," *Gesta* 43 / 2 (2004) 129-142; and Oleg Grabar, "The Shared Culture of Objects," as ch. 3, note 46.

⁹⁸ Lasko, *Ars Sacra*, as ch. 2, note 176: 170.

The famed metalworker himself has come to be considered a part of the heritage and history of the abbey in which he worked .

The production of art was an integral part of the economy in the Rhine-Meuse region in the twelfth century: art production was closely related to the trade and acquisition of relics, and required both human and material resources. It in turn provided income, connections, and prestige; to this end art production was often included in written accounts as evidence of a well-run and illustrious abbey. The text composed by Theophilus and the objects made by Roger demonstrate the increasing value placed on technical skill evident in the creation of a work, an importance exemplified especially in ornament, which, being non-pictorial, is essentially a demonstration of the mode of its making, a trace of labor expended. From this it begins to appear that the acts and behavior of the artist and the relation between his labor and personal or institutional virtue, might be significant. This might itself endow an object with meaning, with sanctity, with virtue. This theme, as hinted at by stray marks in the third oldest copy of *On Diverse Arts*, will be the subject of the next chapter.

Chapter Four

Artisanal Work and Monastic Virtue: The Labor of the Artist

Distinct from both the Wolfenbüttel and Vienna manuscripts, both visually and in its contents, British Library MS Harley 3915 focuses our attention on the rich theoretical depth of *On Diverse Arts*. Dating to the early thirteenth century, the Harley manuscript is the third oldest complete manuscript to survive. While the Wolfenbüttel manuscript encouraged a reading of the text in terms of spiritual ascent, and the Vienna manuscript pointed toward the esteem and reputation of a local artist, the Harley manuscript offers evidence of a perception of the text that straddles the two, revealing how virtue might be practiced in the active labor of artistic work (Figure 3). Transcribed in the early thirteenth century in Northern Germany, the Harley manuscript shows signs of interest in artistic labor and spiritual virtue, and helps us to approach the question of what constitutes and defines the activity of art production for Theophilus – just how he aligned artist, labor, object, and virtue, and to examine surviving objects in new ways.

A major theme of the text, notably in the three prologues, is the practice of virtue, yet just how the techniques Theophilus describes might encourage actual practices and behaviors that would aid in spiritual restoration is less immediately apparent. The Harley manuscript contains a scattering of marginal notes and drawings that considered in

relation to surviving objects, help us to see how a spiritual pedagogy can be made manifest in the actual labor of art-making, to seek out concrete connections between the action of art-making and moral actions, to be alert to these signs of virtuous labor in the final object, and to understand the value of the artist's work in a monastic context.

The Harley Manuscript

The Harley manuscript is puzzling on several counts (Figure 3). A good and careful copy, it betrays a number of idiosyncrasies that defy expectations. Measuring 150 x 110 mm, it is a small handbook, much smaller than the Wolfenbüttel manuscript but larger than the Vienna manuscript (75 mm x 125 mm). The text is written in a single column with ample margins, visible rulings, and fine rubrication. The 109 folios containing *On Diverse Arts* are written neatly, with plenty of space, in a single, rather pointed bookhand. The book is a composite volume, containing a whole series of technical and medical treatises. The rest of the quire in which Theophilus' texts ends is filled, without a break, by chapters of Heraclius' *De coloribus et artibus romanorum*. To the rest of the volume are added a series of extracts: fragments of the *Mappae clavicula*, a short section from Faventius' commentary on Vitruvius, and, beginning on folio 120r in a new hand and a new style of rubrication, a compilation known as *De unguentis*, an ancient text on ointments. The script of the Harley manuscript localizes it to Germany, and an inscription on the back fly-leaf notes that a certain "N." obtained the book in 1444 in Münster, the seat of a Bishopric north of Essen, and west of Osnabrück and Minden (Map, Diagram 2).¹ While everything points to the text having been copied in the same north German

¹ Fol. 149v. Although part of the inscription is lost due to a wormhole, it reads: *Emi ego N. hunc librum munster [...] 1444, in die sancti lamberti in dieta inter dominum Eugenium papam et antipapam felicem.*

region as the Vienna and Wolfenbüttel manuscripts, Dodwell concluded that it represents a separate recension of the text, and it is known for having the most extensive set of instructions of any manuscript.²

The manuscript does not contain the first prologue, and it seems never to have done so. The text, transcribed in a regular quire, begins with the index of chapters of Book one, followed immediately by instructions on the art of painting. The signature mark 'i' appears in the bas-de-page of folio 8v, and the numbering of the quires is continuous until the just after the explicit of *On Diverse Arts*. The absence of the prologue may be due to an oversight or a defect in the manuscript being copied, yet pointing hands in the margins of the second and third prologues suggest that these texts were of particular interest to at least one medieval reader.

The marginal pointers seem to fall into a pattern. The first focuses attention on the title of the second book and the opening words of the prologue: *Incipit prologus in librum secundum / in precedenti libello, frater karissime...*³ The entire passage reads: "Actuated, dearest brother, by a sincere affection, I did not hesitate to suggest to you in the preceding book how much honour and advantage there is in eschewing idleness and in spurning laziness and sloth..."⁴ By highlighting this passage, the reader seems to call attention to the absence of the first prologue, particularly as it is the only place in the entire treatise in which Theophilus refers explicitly to the other books. Importantly, the passage is also a moral urging, an encouragement to take a virtuous path, to avoid the sins of idleness and laziness and sloth.

² Dodwell, *DDA*, as ch. 1 note 5: lxiv-lxv, also Bischoff, "Die Überlieferung des Theophilus-Rugerus" as ch. 2, note 2: 179; Johnson, "The Manuscripts of the *Schedula* of Theophilus Presbyter," as ch. 1, note 5: 90.

³ London, British Library MS Harley 3915, fol. 20r.

⁴ Theophilus, Prologue II; Dodwell, *DDA*, as ch. 1 note 5: 36.

The second pointer marks a passage with a more explicit warning against the perils of sin: *Nam luce clarius constat quia, quisquis otio studet ac levitati...*⁵ The beginning of a list of the vices that the artisan should avoid, the entire passage is as follows: “It is as clear as day, that whoever is abandoned to idleness and irresponsibility also indulges in empty chatter and scurrility, inquisitiveness, drinking, orgies, brawls, fighting, murder, fornication, theft, sacrilege, perjury and other things of this kind which are repugnant in the sight of God.”⁶ The importance of avoiding sin is here highlighted; the passage is detailed. Theophilus indicates what specific activities should be avoided, but more interestingly he takes pains to explain how seemingly small sins, like idleness, are in fact what lead to much larger sins, such as theft or even murder. .

The third pointer is in the margin of the third prologue and highlights a passage that neatly mirrors this litany of vices, for it is the beginning of the list of the gifts of the Holy Spirit: *per spiritum sapientiae cognoscis a deo cuncta creata procedere, et sine ipso nihil esse.*⁷ This is the passage that pronounces the value of virtue and the value of the gifts; the sentence just prior reads: “And lest perchance you have misgivings, I will clearly demonstrate that whatever you can learn, understand or devise is ministered to you by the grace of the seven-fold spirit;” and continues to the passage marked: “Through the spirit of wisdom, you know that all created things proceed from God, and without Him nothing is,” thus calling attention to the correspondence between the forms of the spirit and the making of works of art.⁸ These last two pointing hands, taken together,

⁵ London, British Library Harley MS 3915, fol. 20v.

⁶ Theophilus, Prologue II; Dodwell, *DDA*, as ch. 1 note 5: 36.

⁷ London, British Library Harley MS 3915, fol. 36r.

⁸ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 62.

suggest that for this reader, the avoidance of vice and the embrace of the workings of the Holy Spirit were two of the most important messages in the text.

The reader's focus may encourage us to look more closely for the correspondence between spirit and artistic work, that is, to read the prologues and the instructions as existing in harmony. We see in the third prologue that the author has posited a particular set of virtuous actions as the manifestation of each specific gift: wisdom is the knowing of God's work (*cognoscis a Deo cuncta creata procedere*); understanding, the capacity for skill in variety, measure, and order (*capacitatem ingenii, quo ordine qua varietate qua mensura*); counsel, as working and teaching openly and displaying faithfully (*cum humilitate palam operando et docendo cognoscere cupientibus fideliter ostendis*); fortitude, as working with vigor (*plenis viribus ad effectum perducis*); knowledge, the confidence of intelligence, directed toward greater good (*dominans ingenio, et quo perfecte abundas plenae mentis audacia uteris in publico*); piety, moderation of method, purpose, and reward (*quid, cui, quando, quantum, vel qualiter operis ... mercedis pretium pia consideratione moderaris*), and fear, that you can do nothing without God (*te nihil ex te posse consideras, nihil inconcessum a Deo*). More briefly, then, we see that Theophilus has defined an array of virtues appropriate to the monastic artisan: recognition of God, skill, variety, measure, order, honest work, vigor and completion, knowledge and public benefit, moderation, and the awareness that nothing is given without God's help. It is precisely these virtues and values that we will see emerge throughout the text in the instructions, as guiding principles.

A last pointer is placed toward the end of the third prologue, and builds upon its predecessors, marking the line that begins: *...et opus pretiosissimi varietatem miratur.*⁹ Here, the passage, a long one, describes the experience of seeing the beauty that embellishes the House of God. The particular line marked in the manuscript describes the appreciation of workmanship:

You have given them cause to praise the Creator in the creature and proclaim Him wonderful in His works. For the human eye is not able to consider on what work first to fix its gaze; if it beholds the ceilings they glow like brocades; if it considers the walls they are a kind of paradise; if it regards the profusion of light from the windows, it marvels at the inestimable beauty of the glass and the infinitely rich and various workmanship. But if, perchance, the faithful soul observes the representation of the Lord's Passion expressed in art, it is stung with compassion.¹⁰

Workmanship here is included amongst the visual values to be recognized by the pious viewer. It is one of the means by which the artist gives the viewer reason to praise the Creator.

The pointing hands isolate a series of ideas that later readers might do well to follow. They mark out themes of vice, virtue, and labor. From the avoidance of sin, to the practice of virtue and work of the Spirit, they indicate a progression that leads up to the value of fine workmanship as a contribution to the beauty of the House of God and the glory of the Creator, and the stirrings of devotion that are called up as a result. As the hand in the second prologue literally points to the idea that sin is to be avoided because it

⁹ London, British Library MS Harley 3915, fol. 36v.

¹⁰ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 63-64. The entire passage is as follows: *... quodque Creatorem Deum in creatura laudant et mirabilem in operibus suis praedicant, effecisti. Nec enim perpendere valet humanus oculus, cui operi primum aciem infigat: si respicit laquearia, vernant quasi pallia; si consideret parietes, est paradysi species; si luminis abundantiam ex fenestris intuetur, inestimabilem vitri decorem et operis pretiosissimi varietatem miratur. Quod si forte Dominicae passionis effigiem liniamentis expressam conspicatur fidelis anima, compungitur...*

repugnant to God, the next hand points out that all gifts, all virtues, are given by the Creator; accordingly, the last hand is the logical extension of these two: praise of the Creator comes from the recognition of His “wonderful” works; workmanship and visual qualities of embellishment in turn point toward, and are the indicators of these wondrous works, and their appreciation is an aspect of devotional practice. Taken as a group, the logical progression which these marks define may serve to shed light on the themes of artistic labor, and the practice of virtue that run through *On Diverse Arts*.

***Imago Dei* and Man’s Potential: Restoration and Learning as a Process**

On Diverse Arts offers a series of choices to the reader, and thus presents a future artisan with a means of practicing virtue. In alignment with the ideas surrounding the notion that man is the *imago Dei*, made in the image of God, and that monasticism is a way of life, decision making is shown to be central to the practice of virtue and to the ascent of the spirit. Even the gifts that give structure to the text can be interpreted as a series of choices. The gifts enumerated in the first prologue, fear, piety, and knowledge, are all essentially about intent, of which the first is to be one who will “contribute both care and concern,” and who will learn “to recognise God’s favour towards me [ie. Theophilus] and to appreciate his generosity.”¹¹ Piety and knowledge are choices too, since they entail looking to God and a willingness to learn. For Theophilus, these good decisions are rewarded: “I would have them know that they can be quite sure that the same things [benefits] are at hand for themselves if they will add their own labour.”¹²

¹¹ Theophilus, Prologue I, Dodwell, *DDA*, as ch. 1 note 5: 1, 2.

¹² Theophilus, Prologue I, Dodwell, *DDA*, as ch. 1 note 5: 1, 2.

From here the second prologue, with its praise of the gifts of fortitude, counsel, and intelligence, offers choices of a more active nature: “Nor should anyone be slow to approach him, of whom Solomon says: ‘He that increaseth knowledge increaseth labour,’ because, if he thinks seriously about it, he will be able to observe how much progress of the soul and body results thereby. ... ‘but rather let him labour, working with his hands the thing which is good that he may have to give to him that needeth.’”¹³ The prologue is concerned with working, teaching, and gaining skill. Whereas the first prologue is primarily of the mind and involves a turning toward God, an adjustment of attitude, or as Carruthers defines it, a lending of “stance” that will moralize activity, the second asserts that knowledge drives labor and that such labor can aid the progress of the soul.

The last prologue, focusing on the gifts of wisdom and perfection, and story of David and the embellishment of the temple of Solomon, describes choices made through devotion and faith. These are the highest purposes for art, and they combine the contemplative and the active choices presented in the first two prologues. Embellishment is an activity that is performed with a heart full of God: “When you have adorned His House with such embellishment ... you will believe with a full faith that your heart has been filled with the Spirit of God.” This prologue then addresses the purpose of art: that the “faithful soul” might be “stung with compassion” at the sight of the Lord’s Passion, or “animated by the hope of its good deeds” when it “beholds how great are the joys of heaven and how great the torments in the infernal flames.” It concludes with a listing of the objects to be made for the divine office,¹⁴ And this list is introduced in terms of a choice: “prepare to execute what is still lacking in the vessels of the House of God,

¹³ Theophilus, Prologue II; Dodwell, *DDA*, as ch. 1 note 5: 36.

¹⁴ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 64.

without which the divine mysteries and service of the Offices cannot continue. These are they: chalices, censers ... covers for Gospel Books and the rest of the things which usage necessarily demands for ecclesiastical rites.”¹⁵ This prologue, with “wisdom” as its gift, with David as its example, implies that faith and love of God leads to an understanding of the purpose of art, which is to stimulate the faithful soul and to provide what is necessary for the celebration of the mass.

From the first to the last prologue, in a sweep that encompasses broader themes related to the nature of each gift, there is a progression in the kinds of choices available: from contemplative ones of intent, to active ones involving physical labor, to the fulfillment of wisdom and the ultimate purpose of art, the choice to love and serve God. Knowledge is guided by the proper intent and piety; these drive physical labor and moralize it. Lastly, faith and love of God allow one to see the larger purpose of art-making, which is the service of God, a return, as it were, to intention. As Jean Leclercq explains it, learning is to be made compatible with the contemplative life; knowledge is not curiosity, but must be used to serve the virtuous goal of Love of God.¹⁶ With knowledge driving labor, and wisdom guiding its purpose, it may be possible for the abstract values of virtue in Theophilus to be practiced in physical form.

Seen as a set, the pointing hands in the Harley manuscript outline the narrative of *On Diverse Arts*, and the series of choices offered in the text suggest that we should focus our attention on the ways in which the physical practice of art making might aid in restoration. This process of restoration is dependent on the idea of *imago Dei*, and begins in the first prologue with the creation of man in the likeness of God: “In the account of

¹⁵ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 64.

¹⁶ Leclercq, *Love of Learning and Desire for God*, as ch. 2, note 182: 256.

the creation of the world, we read that man was created in the image and likeness of God and was animated by the divine breath, breathed into him.”¹⁷ The passage draws on the first chapter of Genesis: “Let us make man to our image and likeness.... And God created man to his own image: to the image of God he created him: male and female he created them.”¹⁸

The idea of *imago Dei* evokes a notion of creative activity. As both Gerhart Ladner and Robert Hanning have shown, for the twelfth century, the idea of the *imago Dei* was largely seen in neoplatonic terms, where man’s creative activity was described in analogy to God’s own creative activity, epitomized in the Incarnation itself.¹⁹ As various scholars have shown, Theophilus’ idea of the artist, accordingly, contains elements of this neoplatonic approach, and many have seen his defense of artistic practice as dependent on the notion *imago Dei*.²⁰ But man as the image of God is only the start of the story; the

¹⁷ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1.

¹⁸ Genesis 1:26-7.

¹⁹ The idea that man’s artistic activity could be analogous to God’s work is based on the idea of the incarnation as a pre-existent, neo-platonic pattern, a claim which itself comes from the opening of the Gospel of John, and the phrase “In the beginning was the Word, and the Word was with God, and the Word was God.” John 1:1. With the creative activity of God as a model and ideal pattern, the work of man on earth could be understood similarly. Ladner, *Ad Imaginem dei, the Image of Man*, as ch. 2, note 201; and Ladner, “Terms and ideas of renewal,” *Renaissance and renewal in the twelfth century* (Cambridge, MA: Harvard University Press, 1982) 1-33; Robert W. Hanning, “‘*Ut enim faber... sic creator*’: Divine Creation as Context for Human Creativity in the Twelfth Century,” *Word, Picture, Spectacle*, Clifford Davidson, ed. (Kalamazoo, MI: Western Michigan University Press, 1984) 95-149, esp. 95-99, and summarized on 102.

²⁰ Pierre Alain Mariaux, for example, uses the symbolism of divine unction in the first prologue and the reference to David in the third, to interpret Theophilus’ artist as on analogy to Christ and the priesthood: the artist, like Christ and the priest, function as a vehicle between the divine and the earthly; Christ is a vehicle for the divine through his nature, the priest through his occupation, the artist through his creative activity. See Pierre-Alain Mariaux, “La ‘double’ Formation de l’artiste,” as ch. 1, note 15: “je soutiendrai que l’artiste, dans l’esprit de Théophile, appartient au monde des élus de Dieu, et cette élection se marque très précisément par l’onction divine que signale, entres autres, le parallèle dans le troisième prologue entre David et l’artisan.” Meanwhile, Erica Deuber-Pauli and Dario Gamboni have suggested that the artist is closer, on analogy, to God, because he is creative in his activities, and thus holds an exceptional, exalted position. Erica Deuber-Pauli and Dario Gamboni, “Suger, Théophile, le guide pèlerin,” as ch. 1, note 15: esp. 66. See also Andrew Martindale, “‘There is neither speech nor language but their voices are heard among them’, Psalm 19, verse 3, sixteenth century translation from the English Book of Common Prayer: The Enigma of Discourse Concerning Art and Artists in the 12th and 13th centuries,” in Beck and Dürkop,

progressive trajectory of *On Diverse Arts*, and the idea of *imago Dei* itself, makes the defense of art one that is dependent on process.

When considered in light of the overarching narrative structure of *On Diverse Arts*, Theophilus' notion of the artist's work emerges as a significant theme, and the catalyst that helped determine the narrative structure of the text. In the first prologue, Theophilus' reference to the *imago Dei* is but the lead-in to a longer passage, defining the primary requirement for man's Restoration to God. Theophilus, having established that man was made "in the image and likeness of God," continues: "By the eminence of such distinction, [man] was placed above the other living creatures, so that, capable of reason, he acquired participation in the wisdom and skill of the divine intelligence, and, endowed with free will, was subject only to the will of his Creator, and revered His sovereignty."²¹ But Theophilus has no sooner defined man's privilege than he recounts its loss in the fall. He does, however, suggest that there remains potential for restoration to God:

Wretchedly deceived by the guile of the Devil, through the sin of disobedience he lost the privilege of immortality, but, however, so far [was] transmitted to later posterity the distinction of wisdom and intelligence, that whoever will contribute both care and concern is able to attain a capacity for all arts and skills, as if by hereditary right.²²

Theophilus defines man's distinction as *imago Dei* to be his capacity for reason and his possession of free will: because man is endowed with reason, he can participate in the "wisdom and skill" of divine intelligence, and because he has free will, he can choose to

eds., *Studien zur Geschichte der Europäischen Skulptur*, as ch. 1, note 18: 205-217. The work of Ernst Kris and Otto Kurz have shown ideas of similar types dating back to Antiquity and current in modern conceptions and myths of the artist. Kris and Kurz, *Legend, Myth, and Magic in the Image of the Artist*, as ch. 1, note 104.

²¹ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1.

²² Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1.

revere his Lord.²³ The sin of the fall of man resulted in the loss of immortality, but to the extent that man still possesses wisdom and intelligence, he may improve himself.

The idea of man as *imago Dei* is the enables a narrative of progress. Restoration is possible through the exercise of the abilities which man, as the image of God, has inherited: reason, skill, intelligence, and wisdom. The Christian religion encourages the process, by giving us reason to turn to God:

Human skill sustained this purpose... and finally, with the passage of time, transmitted it to the predestined age of Christian religion. So it has come about that what God intended to created for the praise and glory of His name, a people devoted to God has restored to His worship.²⁴

Importantly, Theophilus does not discuss man as *imago Dei*, his heritage of intelligence, or his rationality except in relation to the narrative of the fall and restoration to God. The idea of *imago Dei* is inseparable from the idea of restoration; man's inheritance from God is not a state of being, but only the potential to fulfill man's nature which has been damaged, or obscured, by the fall.

For Theophilus, man's "capacity for arts and skills," is attainable, but it is the result of a choice to contribute "both care and concern."²⁵ Personal progress toward restoration is therefore dependent upon a series of good decisions, the first of which is to turn toward God. Beginning with this decision to take a virtuous path, choices define the journey toward nearness to God, one must repeatedly choose to contribute "care and

²³ See also Reudenbach, for the connection of man's rationality to the *imago Dei*, "Praxisorientierung," as ch. 1, note 12: 205-207.

²⁴ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1-2.

²⁵ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1.

concern.” As such, it is choices and actions that become the backbone of Theophilus’ defense of art making and define his notion of artistic labor.

Choosing Virtue

The very language that Theophilus uses to describe man’s capacities and the possibility of restoration emphasizes the idea that the journey to personal salvation is a process and a continual struggle; his notion of artistic work follows suit. In a single sentence divided into four clauses, linked by a carefully chosen set of conjunctions, Theophilus places the fall, the possession of knowledge and intelligence, and the possibility of restoration in a continuum. The passage, quoted in English above, describes the deception of man by the devil. It is worth examining closely in the Latin to see Theophilus’ use of the language:

*Qui astu diabolico misere deceptus, licet propter inobedientiae culpam privilegium immortalitatis amiserit, tamen scientiae et intellegentiae dignitatem adeo in posteritatis propaginem transtulit, ut quicumque curam sollicitudinemque addiderit, totius artis ingeniique capacitatem quasi hereditario iure adipisci possit.*²⁶

The clauses are separated by *licet*, *tamen*, and *ut*. The first is a participial clause, describing the current state of man: “having been wretchedly deceived by the cleverness of the devil.” The second two begin with *licet* and *tamen*, respectively, a pairing that creates an interlocked logical sequence: the former is a concessive clause expressing condition, *licet*, “although,” or “granted that” and it is followed by the use of the subjunctive *amiserit*, to lose. The latter, *tamen*, is adverbial and marks the start of the main clause, and thus maintains continuity with the prior clause. It translates as “nevertheless” or “still,” and is followed by the perfect tense, *transtulit*. The last clause

²⁶ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1.

expresses result, an *ut* clause that defines the possibilities that can follow from the prior conditions.

The *licet–tamen* clause is significant, as it uses the concessive first, to express the condition of loss at the fall. The fall, then, is the dependent clause; set apart, it defines the larger condition, but it is exceptional. *Tamen*, in contrast, introduces a continuity, from man’s wisdom before the fall, to the inheritance of man even after the fall. This continuity is also emphasized by use of the verb *transtulit*, to transmit, or carry through. An English paraphrase, somewhat literal to emphasize the connotations of the words would be: “Even though he lost the privilege of immortality, still he carried through the dignity of wisdom and intelligence, so that whoever would contribute care and concern could gain a capacity for arts and skills.”²⁷ Were *tamen* replaced with a conjunction like *sed*, the semantic and grammatical break would separate clause expressing the transmission of knowledge: “he was deceived and he lost the privilege of immortality, but he retained wisdom and intelligence, and as a result, whoever would contribute care and concern could gain a capacity for arts and skills.”

The use of *tamen*, then, although a seemingly small detail, underscores the continuity between the state of man before the fall and the state of man after the fall, and draws attention to the meaning of the word *transtulit*, to transmit. Man only must choose to contribute care and concern (*ut quicumque curam sollicitudinemque addiderit*). Theophilus casts his prose with great care. Not content simply to recount the fall and describe man’s post-lapsarian condition, he uses clauses, conjunctions, and adverbial conjunctions, and chooses words like *tamen* and *transtulit*, to emphasize the continuities between pre- and post-lapsarian man. Creation as the *imago Dei* is both beginning and

²⁷ Theophilus, Prologue I, my translation.

the end; it makes man distinct from other creatures, and allows the possibility of restoration to God after the fall. As a by-product the idea is used to set in motion the progressive trajectory of *On Diverse Arts*. The narrative of Restoration that guides Theophilus' text shifts the question of the nature of artistic production away from ideas about artist's agency or creativity toward the virtue attached to his labor and the potential value of the work accomplished.

Theophilus' notion of man as created in the image of God is in keeping with his contemporaries' ideas of restoration. Hugh of St. Victor, too, defines the *imago Dei* as the potential of man to progress toward restoration; in the *Didascalicon*, he makes a distinction between *imago Dei* and *similitudo*, and casts learning as a part of restoration:²⁸

This, then, is that dignity of our nature which all naturally possess in equal measure, but which all do not equally understand. For the mind, stupefied by bodily sensations and enticed out of itself by sensuous forms, has forgotten what it was... But we are restored through instruction, so that we may recognize our nature and learn not to seek outside ourselves what we can find within. 'The highest curative in life,' therefore, is the pursuit of wisdom: he who finds it is happy, and he who possesses it, blessed.²⁹

For Hugh, the notion of man as the *imago Dei* is a way of describing potential: the beginning of restoration is the recognition of one's nature as *imago Dei*. In a post-lapsarian world, this is the beginning of the pursuit of wisdom. Importantly, it is based on recognition that a choice to restore oneself, to learn, exists.

Although implicit, this notion of *similitudo* is present in Theophilus' narrative.

For he too describes restoration to God and the process of learning as based on the

²⁸ Hugh of St. Victor, *Didascalicon*, Book I, chapters 1-3, 8, and Jerome Taylor's introduction, 18-19 as ch. 2, note 16. Also linking learning to redemption, Richard Southern addresses in depth the precepts of scholastic thought and its basis in the idea that man's knowledge of the world was lost in the fall, Richard W. Southern, *Scholastic Humanism*, as ch. 2, note 15.

²⁹ Hugh of St. Victor, *Didascalicon*, Book I, ch. 1, Taylor, as ch. 2, note 16: 46.

potential endowed by man as *imago Dei*. Potential exists, but it must be recognized, and one must choose to act upon and cultivate in the knowledge of God. That restoration was defined both by the potential of mankind – the *imago Dei*, and the ultimate goal of restoration, that of *similitude* – stems in large part from Augustine and is the basis of a larger strand of twelfth-century writing.³⁰ Rupert of Deutz, in his commentary on the sacrament of Baptism, also distinguished between image and similitude and set them in relation to the Restoration to God:

What difference there is between image and similitude and that man by sinning did not lose the image but the similitude of God, to which he can be restored through the Baptism of Christ. Man was made in the image of God, naturally, because he is rational, and to the similitude of him truly because he is driven to imitate divine goodness. ...Therefore, as we have lost, by our volition, the similitude of God, by our volition we can nevertheless recuperate the goodness of God, and the holy spirit there always descends where we easily can reach, while it is brought to waters which are ready, requiring only will, procuring all other things freely.³¹

As it was for Theophilus, the *imago Dei* for Rupert is the gift of free choice and rationality. According to Theophilus man possesses “wisdom and intelligence” even after the fall; he has not lost his capacity for reason. For Rupert too it is man’s rationality that

³⁰ For the twelfth-century use of these ideas, and the relation to Augustine, see Giles Constable, “The Ideal of the Imitation of Christ,” *Three Studies in Medieval Religious and Society Thought* (Cambridge: Cambridge University Press, 1995, rpt. 1998) 143-248, especially 166-167, 186.

³¹ Rupert of Deutz, *Liber de diuinis officiis*, Book VII, CCCM 7, as ch. 2, note 17: 225. *Liber septimus de ordine eiusdem baptismi*, cap. iv: *Quae imaginis et similitudinis dei distantia sit et quod non imaginem sed similitudinem homo peccando perdidit ad quam et reformatur per baptismum christi. Ad imaginem quippe dei homo factus est in eo quod rationalis est ad similitudinem uero in eo quod diuinae bonitatis imitator conditus est....Igitur ut similitudinem dei quam nostra uoluntate perdidimus nostra nihilominus uoluntate recuperare possimus bonitas dei spiritus sanctus illuc usque descendit quo peruenire nos facile possumus dum superfertur aquis quae praesto sunt de nostro solam uoluntatem postulans cetera gratis omnia procurans.*

makes restoration possible.³² In his commentary on the Gospel of John, Rupert explains the distinction further: “by sinning man lost imitation of God’s goodness, ‘according to which he was made in the likeness of God,’ but he did not lose his reason, according to which he was made in the image of God.”³³ Drawing heavily on Augustine’s theology of likeness and restoration, Rupert distinguishes man in the image of God from man’s likeness to God: likeness was lost in the fall, and must be regained, a process made possible because man, as *imago Dei*, is rational.³⁴

Restoration is a process, which can be helped, according to Hugh of St. Victor, by the practice of beneficial activities, such as the practice of mechanical arts:

this then, is what the arts are concerned with, this is what they intend, namely to restore within us the divine likeness, a likeness which to us is a form but to God is his nature. The more we are conformed to the divine nature, the more do we possess wisdom, for then there begins to shine forth again in us what has forever existed in the divine Idea or Pattern, coming and going in us but standing changeless in God.³⁵

For Hugh, Rupert, and Theophilus, the *imago Dei* is the latent part of man’s nature; it is a sign of his potential and allows man free, rational choices of activity. Restoration is an

³² Rupert of Deutz, *Liber de divinis officiis* Book VI; CCCM 7, as ch. 2, note 17: 187-188. See esp. 187, which reads: *Nam de homine cum faceret eum duo praesciuit scilicet et quomodo per fraudem diaboli decipiendus esset et quomodo per omnipotentiam suam deceptum et perditum restaurare posset. Haec inquam duo praesciuit sed eorum alterum id est lapsum hominis fieri permisit ad cumulum diabolo debitae damnationis alterum autem id est restaurationem eius praeordinavit ut sicut ait apostolus ad ephesios innotesceret principatibus et potestatibus in caelestibus per ecclesiam multiformis sapientia dei.* See also *Commentaria in evangelium Sancti Iohannis*, CCCM 9, ed. Hrabanus Haacke, 14.

³³ Rupert of Deutz, *Commentaria in Evangelium Sancti Iohannis*, Book I, I, 4, and Book IX, 8, 49; CCCM 9, as ch. 4, note 32: 17, 481; and for a discussion, Constable, “The Ideal of the Imitation of Christ,” as ch. 4, note 30: I, 186.

³⁴ Augustine distinguishes man’s pursuit of likeness to God from that of Christ, who alone is like God. See Augustine, *De vera religione*, Book XXXVI, 66, in CCSL 32, 231; and Augustine, *De diuersis quaestionibus octoginta tribus*, CCSL 44A, ed. Almut Mutzenbecher (Turnhout: Brepols 1975) 51,74; and especially, Gerhart B. Ladner, “St. Augustine’s Conception of the Reformation of Man to the Image of God,” *Images and Ideas in the Middle Ages, Selected Studies in History and Art*, 2 vols. (Rome: Edizioni di Stoiria e Letteratura, 1983) II: 595-608.

³⁵ Hugh of St. Victor, *Didascalicon*, Book 2, ch. 1, Taylor, as ch. 2 note 16: 61.

ongoing process; it is the fluctuating, moving nature of man's striving for wisdom, and it is set in contrast to the "changeless God."

The progression toward God is continuous process for Theophilus; following the ascent of the gifts, it moves from choices of intent to choices made manifest in action. This shift also affects how Theophilus tells his reader to use his instructions. The emphasis on the contemplative intent in the first prologue extends to Theophilus' initial encouragement for his reader to study his book, not to practice his instructions: "When you have read through these things several times and commended them to a retentive memory, you will recompense me for the labour of instruction..."³⁶ In contrast, it is only in the last prologue that Theophilus urges his readers explicitly to create objects, rather than learn of them, thereby employing skill for the sake of God: "Come now, therefore, my wise friend ... be inspired henceforth to greater deeds of skill..." The trajectory of *On Diverse Arts*, therefore, seems to adhere to the idea that the practice of virtue occurs when mind and action are aligned and directed toward God.

That virtue could be practiced through the imitation of certain physical actions has been explored in recent scholarship, and the idea is expounded by contemporary twelfth-century writers.³⁷ Wibald of Stavelot, in a letter to a monk, describes the beginning of wisdom as interior knowledge, and the role of the teacher to stimulate and to guide: "Let our example stimulate you, imitation rouse you, concern incite you"; and later: "You learn if you see him, you are instructed if you hear, you are perfected if you follow."³⁸

³⁶ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1, note 5: 4.

³⁷ Ineke van 't Spijker, *Fictions of the Inner Life; Religious Literature and Formation of the Self in the Eleventh and Twelfth Centuries*. (Turnhout: Brepols, 2004) 10-11; Jaeger, *The Envy of Angels*, as ch. 2 note 15.

³⁸ Wibald, letter to a monk, epistles 127 and 167. *Monumenta Corbeiensia*, Bibliotheca rerum Germanicarum I (Berlin: Weidmann, 1864): 205 and 286. Quoted and translated by Constable, "The Ideal

The way in which art aids this learning process, and is evidence of it, has been studied by Ilene Forsyth in her analysis of the sculptural representation of Abbot Durand (d. 1077) made around 1100 for the cloister of Moissac. The image of the abbot, in the company of apostles, set into the piers of the cloister, replaces the traditional image of Christ and functions to invite living monks to follow the apostolic path, as set out by Christ and continued in the monastery.³⁹ Cynthia Hahn has focused on aspects of representations of saints who, because they are members of the heavenly realm and are present on earth through remembered actions, function as invitations to veneration and models of behavior.⁴⁰ Ienje van 't Spijker tries to reconcile these seemingly conflicting views by seeking the relation between the external models of saints and the discourse on the inner man. For van 't Spijker, the interiorization of spirituality was itself a method of mimesis, where the imitation of examples was a way of bridging the exterior and the interior; imitation of action was man following man.⁴¹ This method, she suggests, is inherently limited, but because man is human, he can but follow fellow humans; the quest for likeness to God is mediated by the model of Christ and the saints. It is because of, and precisely, via the abstraction of the virtues described or exemplified in saints' lives, and because of the inaccessibility of the saints, that there was a necessity for the imitation of saints to have a certain distance from actual life. As van 't Spijker points out, this was especially the case for martyrs, whose martyrdom was, for the monk, inimitable, but nonetheless held lessons in virtue.

of the Imitation of Christ," as ch. 4, note 30: 186.

³⁹ Ilene Forsyth, "The *Vita Apostolica* and Romanesque Sculptures: Some Preliminary Observations," *Gesta* 25/1 (1986) 75-82.

⁴⁰ Cynthia Hahn, "Seeing and Believing," ch. 1, note 104. More generally, on the establishment of saints as "social pillars" of their community, see Peter Brown, "Relics and Social Status in the Age of Gregory of Tours," *Society and the Holy in Late Antiquity* (Berkeley, CA, 1982) 222-250.

⁴¹ Van 't Spijker, *Fictions of the Inner Life*, as ch. 4, note 37: 8-11, and "Model Reading," as ch. 1, note 104: 136, 140, 144.

The Iconography of Choice: Monastic Life and the Pursuit of Virtue

The gifts offered by Theophilus are essentially a series of choices offered to the reader; they guide the monastic life and are emblematic of the constant struggle for virtue and the choices that lead one toward, or away from, God. Like Theophilus' choice to "contribute care and concern," the first decision of the monk, is the choice to lead a spiritual life, yet this commitment must be renewed daily, as one constantly aligns one's view toward God, dedicates one's work to God, and chooses virtue in the daily struggle between virtue and vice.

The portable altar made by Roger of Helmarshausen for the Abbey of Abdinghof displays a series of martyrdom scenes in which the idea of choice takes central stage. The four side panels of the altar are covered by gilded, openwork bronze plaques that show the sacrifices made by these "witnesses" to their belief, set together in a continuous strip: one long side shows two scenes of the life of St. Felix of Aquileia, and the opposite long side shows three scenes of the martyrdom of St. Blaise of Sebaste (Figures 51-52).⁴² One short side shows the baptism of St. Peter and the martyrdom of a monk (Figure 53); the opposite short side is usually thought to show the martyrdom of St. Paul (Figure 54).⁴³ The side panels, both in terms of subject and technique, are highly unusual for the time period and have few iconographical precedents in eleventh-century *ars sacra*. altars such as the Gertrude altar (Figure 46) contain no narrative images on the side panels, but

⁴² Legner, ed. *Ornamenta Ecclesiae*, as ch. 1, note, 14: C 34, I, 454; Lasko, *Ars Sacra*, as ch. 2, note 176: 165.

⁴³ Legner, ed. *Ornamenta Ecclesiae*, as ch. 1, note 14: C 34, I, 454; Lasko, *Ars Sacra*, as ch. 2, note 176: 166.

shows apostles under arches, and many twelfth-century altars follow this type.⁴⁴

Narrative scenes from the life of Christ are depicted on those few ivory paneled altars that survive. One, an eleventh-century altar still kept in the treasury of the abbey of Melk, has been linked to the Abdinghof altar because both contain continuous fields of imagery, but this is the extent of the comparison.⁴⁵ Roger's panels of saints' martyrdoms, set into a continuous band of imagery, are thus a significant departure from tradition.

The program of the altar puts a particular emphasis on the decisions being made by those who persecute the saints, pausing the action just before the sin occurs. The condemnation and martyrdom of the saint who is likely Paul is shown in two separate scenes. On the left, the magistrate condemns the saint, who is held by a soldier. On the right, another soldier lifts his sword, about to cut off Paul's head. In these scenes, the two largest figures are the magistrate and the soldier with the sword. The magistrate crosses his arm, holding a scroll in his left hand while he condemns the saint with his right. The gesture creates an imbalance; in the slightly earlier Bayeux tapestry, this gesture in images of Harold taking his ill-fated oath, has been seen to underscore the man's inconstancy and moral dilemma.⁴⁶ The throne of the magistrate is turned to face the viewer, while Paul is stands behind the throne, with his right hand raised, choosing to submit to his fate. The size and frontal position of the magistrate creates a contrast with

⁴⁴ The altar of Henry of Werl, and the mid-century altar of Eilbertus of Cologne, dating to c. 1130, now held by the Kunstgewerbemuseum in Berlin, or the Gregorius altar, of 1140, in the Schatzkammer of St. Servatius in Siegburg, are a few examples. There does survive a group of altars with narrative panels on their sides, but they show primarily the life of Christ, as is visible on the eleventh-century altar of the Cathedral of St-Aubin at Namur, where it is now part of the diocesan Museum.

⁴⁵ Michael Peter, "Neue Fragen und alte Probleme," in *Schatzkunst*, as ch. 1, note 2, and ch. 3, note 51: 80-96, esp. 83.

⁴⁶ Madeline Caviness, "Obscenity and Alterity: Images that Shock and Offend Us/Them, Now/Then?" *Obscenity: Social Control and Artistic Creation in the European Middle Ages*, Cultures, Beliefs and Traditions 4, ed. Jan M. Ziolkowski (Leiden: Brill, 1998) 155-175.

the smaller, moving figures in the rest of the scene and emphasizes his role as judge and persecutor. In the following scene, Paul makes the same gesture of witness, while the over-large soldier, set in front of the other figures, holds his head with his left hand and raises his sword with his right. The soldier, like the magistrate, is set in front of the other figures. In both scenes, it is those who have chosen evil who are the active agents.

The scene is continuous, creating a sense of movement and stopped time. There is no frame to divide the scene on the left from that on the right; figures overlap each other and stepping feet and bent and extended arms suggest movement. The action of the scenes is vivid: the magistrate is caught in the act of condemning, the soldier about to decapitate a holy man. The pause mid-action emphasizes the fact that evil is a choice. Rather than the suffering of the saint, it is the agency of the magistrate and the soldier, their actions, their choice of vice over virtue, that are the primary subject of the scene.

The narrative emphasis on the Abdinghof altar becomes all the more clear when contrasted with scenes on the portable altar from the abbey of Stavelot, made some decades later, about 1160 (Figure 13). This altar also contains images of the martyrdoms of the twelve apostles on its sides, but the focus very much on the saints, their sacrifice, and their suffering. Each martyrdom is contained within one framed panel and the saints themselves take up the most space in each scene, shown in distorted positions of suffering, while their persecutors stand at the edge of the scene. In the scene of the martyrdom of Paul, for example, the saint's curved body takes up a wide swath of the foreground, as he leans toward the ground, and his bent legs extend at a diagonal to reach the height of the elbow of the guard behind him; although bent over, he is far larger than the other figures in the scene. The soldier next to him lifts his sword so that it is parallel

to his leaning head and intersects only the word *martirium* in the inscription above, not an actual head. No drapery flies behind him, his body is not distorted by the motion, and the step he takes toward the saint is a narrow one. The martyrdom of Paul on the Abdinghof altar, is far more dramatic: the soldier lifts his sword far back behind him, his arm bent so that the sword is parallel to the ground. The sword, in fact, points across his own head, not Paul's. While the Stavelot soldier's sword points toward the word, and perhaps the idea, of martyrdom, as if to show it was predestined, the Abdinghof soldier's sword here seems to underscore the human choice which occurs in the event of martyrdom, the decision being made at that moment, on the part of the persecutor who has ordered the soldier to perform the deed.

Rather than the drama of the moment of choice, as represented on the Abdinghof altar, the Stavelot altar enamel shows the suffering of the saint and the divine grace of God, as though all are witnessing and participating a divine plan. Indeed, the suffering saints on the Stavelot altar are ultimately subsumed under the ultimate suffering of Christ, whose Passion is represented in a series of typological scenes on the top panel of the altar. As a group, the saints below and Christ above, are but actors in a larger divine plan of sacrifice, suffering, and redemption.

The Abdinghof altar has no such Passion or Crucifixion scene. The top panel on the altar is instead portraits of saints, each shown and labeled according to their roles in the history of the church: Felix, as military saint and labeled as martyr; Blaise, holding a staff and labeled as bishop (*episcopus*); Blaise's counterpart and superior in ecclesiastical affairs, Peter, holding keys, and labeled as apostle; and Paul, holding a book and also labeled as apostle. Having each taken their own path, fought their own vices, the saints

here become part of the divine circle of the blessed. The apostolic martyrs on the Stavelot altar may be seen in relation to the suffering of Christ; they are emblematic of a lineage of saints that emanates from the Crucifixion through time. In contrast, the saints on the Abdinghof altar, retain their individual narratives by being represented twice: once in the action of decision making, and once in heavenly array, as if to display the benefits of their actions.

The idea of choice then, carried enough weight for the early twelfth-century monastic context that it was depicted as a theme in imagery. Roger as artist seems to have been intrigued by narrative possibilities of moral choice, just as Theophilus as author emphasized the concept. As Van 't Spijker has shown, for a monk the very willingness to do something held significance for spiritual progress: one could decide to act, and one could decide how to act. The actions that result from these choices make up the practice of spiritual virtue. Part of a monk's initiation, Van 't Spijker argues, was a consideration of the choices available to him; this included whether or not to pursue the monastic life at all, and what kind of monastic life one would pursue.⁴⁷ The theme emerges in the *Little Book of the Different Orders and Professions which are in the Church*.⁴⁸ Written in the early twelfth century, possibly by Reimbald, a canon regular of St. Lambert of Liège, the book describes the various practices of the different orders of monks. The *Libellus* appears to modern readers to be remarkable for its tolerance of the divergences in monastic practice. But what is interesting in the present context is that the text uses descriptions of the orders of monks to create an elaborate allegory, where the whole

⁴⁷ Van 't Spijker, *Fictions of the Inner Life*, as ch. 4, note 37: 3.

⁴⁸ Giles Constable, and B. Smith, eds., *Libellus de diversis ordinibus et professionibus qui sunt in Aecclesia* (Oxford: Clarendon, 1972).

diversity of monasticism is seen to contribute to the eventual triumph of the Church.⁴⁹

The book also is notable because it presents a series of choices to the reader; The diversity and tolerance in the *Libellus*, therefore, carries added significance, because it confirms the importance of the choice itself.

The gifts are a series of choices offered throughout *On Diverse Arts*; in the instructions, they are presented as possibilities for action. Theophilus introduces his instructions to the reader in the subjunctive, as though they are solely in the realm of possibility. Usually employing the subjunctive forms of the verb “to wish” (*volvere*) when introducing objects, the performance of a technique and making of an object becomes a choice. This occurs in the opening part of the long section of Book three devoted to the making of a chalice: “If, when this [the silver] is purified, you want to make a chalice, divide the silver into two equal parts...” (*quo purificato, si calicem fabricare voveris, divide argentum aequaliter in duo...*)⁵⁰ Theophilus uses the subjunctive form, *voveris*, rather than the indicative *vis*, which is commonly used by Heraclius and in the *Mappae Clavicula*. Indeed, most of the verbs used by Theophilus to indicate wish tend to be a conditional subjunctive, while Heraclius uses the indicative: *quaerit, vultis*, and uses subjunctive only as a hortatory in the body of his instructions. By using the subjunctive, Theophilus’ instructions become hypothetical scenarios, which may or may not be fulfilled, according to the choice of the reader.

Theophilus consistently uses these verbal formulas, and the pattern shows just how thoughtfully constructed and carefully written the treatise was. Even in later variations in the text, the subjunctive remains, as in the chapter on Spanish green. In the

⁴⁹ Constable, introduction, *Libellus*, as ch. 4, note 48.

⁵⁰ Theophilus, Book III, ch. xxiv, “Dividing up the silver for the work,” Dodwell, *DDA*, as ch. 1 note 5: 75.

Harley manuscript, and most manuscripts, the text reads: “If you want to make Spanish green, take some plates of copper that have been beaten thin...” (*Si vero viride Hispanicum componere voveris, tolle cupri tabulas attenuatas...*).⁵¹ But in the two earliest copies, Vienna and Wolfenbüttel, it is not *voveris* but *velis*, a potential subjunctive referring to the immediate future, that is used. Such a shift by Theophilus, or by later copyists to the use of *voveris* in the opening lines of the instructions, emphasizes the hypothetical, the uncertain, the choices and possibilities at stake.

Once he has suggested the possibility for making an object, however, Theophilus replaces the conditional subjunctive with the indicative: “If you want (*voveris*) to make censers of repoussé work in gold, silver, or copper, you first refine the metal in the above way, and according to the size that you want the upper part of the censer to be, you cast two, three or four marks in the iron moulds.”⁵² The entries are carefully structured; their opening words function to confirm intention, and then instructions are given as to how to proceed.

Framed by the narrative structure of the book, the overarching theme of choice transforms the making of an object into an activity laden with moral imperative. The reader’s decision to restore himself to God orients all succeeding instructions and prologues, so that “...that whoever will contribute both care and concern (*curam sollicitudinemque*) is able to attain (*adipisci*) a capacity for all arts and skills....”⁵³ The possibility of gaining wisdom is always dependent on man’s decision to pursue it. The

⁵¹ Theophilus, Book I, ch. xxxvi, “Spanish Green,” Dodwell, *DDA*, as ch. 1 note 5: 33.

⁵² *Si vero thuribula ductili opere componere voveris in auro vel argento sive cupro, primum purificabis ordine que supra, atque fundes in infusoriis ferris duas marcas vel tres sive quatuor, secundum quantitatem quam vis habere superiore partem thuribuli.* Theophilus, Book III, ch. lx “The Repoussé Censer,” Dodwell, *DDA*, as ch. 1 note 5: 111.

⁵³ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 1.

danger, the opposite choice, as Theophilus explains, is to neglect the potential of his nature as *imago Dei*, to let lapse the inheritance of rationality and intelligence:

“Therefore, let not the pious devotion of the faithful neglect what the wise foresight of our predecessors has transmitted to our age; what God has given man as an inheritance, let man strive and work with all eagerness to attain (*hoc homo omni aviditate amplectatur et labore adipisci*).”⁵⁴ Through the trajectory of choice, Theophilus makes art a spiritual undertaking; the choice to make an object at all, and the decision of what object to make, become a series of decisions that can be either a step on a path to virtue or a step on a path of vice.

We find additional evidence for this reading in a fourteenth-century manuscript in Leipzig. This is a manuscript, probably made at the Cistercian abbey of Alzelle, and almost certainly, owned by a Antonite hermit, that contains a recension of the text that is very closely related to the Vienna and Wolfenbüttel manuscripts. Yet in a striking omission, the copyist has left out the very last line of Theophilus’ third prologue, with its list of objects the student might make: “These are they: chalices, candlesticks, censers,

⁵⁴ Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 2. It is notable that in both of these passages Theophilus uses the verb *adipisci*, a verb used by other twelfth-century authors in terms to express the pursuit of heavenly reward, highlighting both the progressive nature of learning and its restorative goal. See for example: Hugh of Saint Victor, *De archa Noe morali*, Book IV cap. xi: *Quod enim timemus incidere, sollicitè studemus euitare; et quod dolemus adesse, sollicitè studemus a nobis remouere; et quod desideramus adipisci, sollicitè studemus obtinere*. In *De archa Noe; libellus de formatione arche*. ed. Patrice Sicard, CCCM 176-176A (Turnhout: Brepols, 2001): III, 76. See also Bernard of Clairvaux’s passage on the gaining of heaven, in *Sermones de diuersis*, no. 65, par 1: *Quid, nisi regnum caelorum? Invenire est in eo salutis opera, quibus regnum caelorum poteris adipisci Ene ergo agrum, et a concupiscentiis tuis tibi vindica corpus tuum, dato nimirum pretio fomentis et occasionibus ipsarum concupiscentiarum ubi vero thesaurum effoderis, esto iam negotiator, et pretiosas margaritas quaere*. In *Bernardi opera*, ed. Jean Leclercq and Henri Rochais, Cetedoc Library of Christian Latin texts 2 (Turnhout: Brepols, 1994) vol. 6,1: 73-406. 298; Andrew of St. Victor makes a similar statement on the acquisition of wisdom in his comments on the book of Solomon; see the *expositio historica in parabolis: Quasi dicat: Si uis perfectam adipisci sapientiam quae est in cultu Dei, in cognitione scilicet et dilectione ipsius, per timoris ianuam stude intrare ad dominam quae in altissimis inhabitat et thronum suum in columna nubis collocat*. In *Expositiones historicae in libros Salomonis*, ed. Rainer Berndt, CCCM 53B, line 190.

cruets, shrines, reliquaries for holy relics, crosses, covers for Gospel Books and the rest of the things which usage necessarily demands for the ecclesiastical rites. If you wish to make these, begin in this way.” The Leipzig manuscript, however, ends simply with “...the rest of the things which usage necessarily demands for the ecclesiastical rites.” Moreover, the manuscript also contains only nine chapters excerpted from Book three. These turn out, however, to follow a logical pattern. Together they provide the information necessary to make items using niello – a black copper sulfate used to fill in engraved design. The first four cover files and crucibles, while the second five pertain to the technique of niello and its application.⁵⁵ There is one further omission – the reference to colored glass in Book two. A pattern emerges and suggests that the text may have been changed to comply with Cistercian ideals of asceticism, where unnecessary objects and lavish colors were discouraged.⁵⁶ This suggests that the text was understood as

⁵⁵ See fols. 22r-v; the unnumbered chapters are as follows: fol. 22r: ch. xvii, “Files;” ch. xviii, “The Tempering of Files;” ch. xix, “The Same as Above;” Dodwell, *DDA*, as ch. 1, note 5: 72-73; and ch. xii, “Crucibles for melting gold and silver;” idem: 74. On fol. 22v: ch. xxviii, “Niello;” ch. xxviiii, “Applying the niello;” idem: 81; ch. xxxii, “Applying the niello;” idem: 84; ch. xli, “Polishing the niello;” idem: 92.

⁵⁶ The history, and enforceability of Cistercian statutes has been much studied; for a literary analysis, see Charles H. Talbot, “The Cistercian Attitude Towards Art: The Literary Evidence,” *Cistercian Art and Architecture in the British Isles* (Cambridge: Cambridge University Press, 1986) 56-64; for the earlier period, and the problems of legislation, see Conrad Rudolph, “The ‘Principal Founders’ and the Early Artistic Legislation of Cîteaux,” *Studies in Cistercian Art and Architecture* 3 (Kalamazoo: Cistercian Publications, 1987) 1-45; and the question of consistency in legislation and principle, see Jean-Baptiste Auberger, *L’unanimité cistercienne primitive: Mythe ou réalité? Cîteaux: studia et documenta* 3 (Brecht: Cîteaux, commentarii cistercienses, 1986). For regulations and the illumination of manuscripts see Walter Cahn, “The Rule and the Book: Cistercian Book Illumination in Burgundy and Champagne,” *Monasticism and the arts*, ed. Timothy Verdon, John Dally, John Cook (Syracuse, Syracuse University Press, 1984) 139-172. Approaches to Cistercian policies in terms of the relation between the visual experience and spirituality have focused much on the period of Saint Bernard. See Emero Stiegman, “Saint Bernard: The Aesthetics of Authenticity,” *Studies in Cistercian Art and Architecture*, 2 (Kalamazoo, Cistercian Publications, 1984) 1-13; Elisabeth Melczer, “Monastic Goals in the Aesthetics of Saint Bernard,” *Studies in Cistercian Art and Architecture* (Kalamazoo: Cistercian Publications, 1982) 31-44. For Cistercian writings as critiques of Benedictine visual culture, see Conrad Rudolph, *The “Things of Greater Importance,”* as ch. 2, note 59; Conrad Rudolph, “Bernard of Clairvaux's Apologia as a Description of Cluny, and the Controversy over Monastic Art,” *Gesta* 37 / 1-2 (1988) 125-132; and for the Benedictine perspective, see John van Engen, “‘The Crisis of Cenobitism’ Reconsidered: Benedictine Monasticism in the Years 1050-1150;” *Speculum* 61 / 2 (Apr. 1986) 269-304. As discussed in Chapter one, Tossatti and White have argued that *On Diverse Arts* was written in part as a response to Bernard and the Cistercian

serving practical and spiritual needs at once, and again suggests these choices carried moral weight, be it the choice to become a monk, the choice of what kind of monk to be, or, for an artisan, the choice of what kind of object to make.

Defining Good Labor: Acting with Virtue and Avoiding Sin

We can now begin to see in the alternating order of prologues and instructions in *On Diverse Arts* a way of linking abstract virtues and concrete actions. As we have seen, Theophilus' explicit descriptions of virtue and vice, such as the avoidance of sloth, only occur in the prologues. In the instructions the virtues are implicit and are embedded in descriptions of the proper modes of procedure to follow. The instructions, it appears, are governed by adverbs subtly suggesting approaches to actions .

In *On Diverse Arts*, actions are defined according to the virtue or vice that they make manifest in the practitioner. The second pointer in the Harley manuscript called attention to the importance of avoiding sin, highlighting the moral implications of behavior. With its list of infractions and sinful activities, this passage is the most explicit statement in the text of the pitfalls of bad choices. Labor and pious action are the means of defending against sloth, against laziness: "It is as clear as day, that whoever is abandoned to idleness and irresponsibility also indulges in empty chatter and scurrility, inquisitiveness, drinking, orgies, brawls, fighting, murder, fornication, theft, sacrilege, perjury and other things repugnant in the sight of God. God is mindful of the humble and quiet man, the man working in silence in the name of the Lord..."⁵⁷ It is, as Carruthers

critiques, see Silvia Tosatti, *Trattati medievali*, as ch. 1, note 13; and Lynn White, Jr., "Theophilus Redivivus," as ch. 1, note 13. Lastly, for labor in the Cistercian context, and labor as a spiritual virtue, see Conrad Rudolph, *Violence and Daily Life: Reading, Art and Polemics in the Cîteaux Moralia in Job* (Princeton: Princeton University Press, 1997).

⁵⁷ Theophilus, Prologue II, Dodwell, *DDA*, as ch. 1, note 5: 36.

has shown, labor itself that can be a way to defend against the wandering of the mind, a defense against *curiositas*, it clears a route for intention to be carried out.⁵⁸ Intelligence, therefore, can govern the actions of the instructions, so, if followed properly, the actions of the instructions can be the practice of virtue.

In the instructions, Theophilus attaches virtues to actions. Throughout he describes precisely how to perform techniques and how to labor. The most common adverb Theophilus uses in the text is *diligenter*: he urges diligence when straining the green earth, in the collecting of sand for the making of frit, in the melting of glass for enamel.⁵⁹ The virtue of diligence is extolled thirty-five times in the text and is by far the most frequently used adverb by Theophilus; he also uses *diligentissime* and *diligentia* to fill the same semantic function. Even other adverbs that he uses, however, are related terms, so that care and diligence become what overwhelmingly defines proper execution of technical processes.

The ablative *diligentia* is used primarily to denote an action of care, of diligence, of attentiveness. Rhetorically, it is used for a manner of listening,⁶⁰ or, with a strong ethical dimension, in opposition to negligence. In his first prologue, as Theophilus presents to his reader the reward of knowledge that will accompany the careful study of his text, he uses the term *diligentius*: “If you will diligently examine it, you will find in it whatever kinds and blends of various colours Greece possesses...”⁶¹

⁵⁸ Carruthers, *Craft of Thought*, as ch. 2, note 188: 80-81, 83.

⁵⁹ Book I ch. ii, “The Colour, Green Earth”: ...*sed missus in aquam resolutur et per pannum diligenter colatur; cuius usus in recenti muro pro viridi colore satis utilis habetur*; Dodwell, *DDA*, as ch. 1, note 5: 5. Book II ch. iv, “The Frit”: ...*deinde tollens duas partes cinerum de quibus supra diximus, et tertiam sabuli diligenter de terra et lapidibus purgati, quod de aqua tuleris, commisce in loco mundo*; idem: 39. Book III, III ch. liv, “The enamel”: ...*sufflansque diligenter considerabis si aequaliter liquefiant*; idem: 105.

⁶⁰ Marcus Tullius Cicero, *De Officiis*, ed. Karl Atzert (Leipzig: Teubner, 1963) 1.103.

⁶¹ *Quam si diligentius prescrueris, illic invenies quicquid in diversorum colorum generibus et mixturis habet Graecia...* Theophilus, Prologue I, Dodwell, *DDA*, as ch. 1, note 5: 4.

The use of the word *diligentia* in connection with good action had a long history. Cicero, in his *De officiis*, includes diligence as that which stems off negligent, or heedless action..⁶² In Benedict’s Rule the term is used to describe the worth of the office in the monastery. The idea of *diligentia* has been shown by Ellen Perry to be a key word in the description of art and craft in Pliny the Elder’s *Natural History*. For Pliny, Perry argues, *diligentia* implied an accuracy, which led to likeness and similitude in naturalistic rendering.⁶³ The best artists have diligence, though, she notes, diligence was “not sufficient to make a work of art great,” for it could be taken too far, and thus obscure *gratia*, or grace.⁶⁴ Isidore of Seville’s commentary on the rule for monks introduces diligence in terms of economy and frugality, and this use appears in Cicero as well, as he describes the moral aspect of a house in terms of its decorum and diligentia.⁶⁵ We might suggest then, that Theophilus’ urging the reader to work carefully, with diligence, follows well-established lines, urging accuracy and decorum.

⁶² *Ex quibus illud intellegitur, ut ad officii formam revertamur, appetitus omnes contrahendos sedandosque esse excitandamque animadversionem et diligentiam, ut nequid temere ac fortuito, inconsiderate negligenterque agamus.* Cicero, *De Officiis*, as ch. 4, note 60: 1.103.

⁶³ Ellen Perry, “Notes on *diligentia* as a Term of Roman Art Criticism,” *Classical Philology* 95 / 4 (2000) 445-458.

⁶⁴ Perry, “Notes on *diligentia*,” as ch. 4, note 63: 445. Perry also notes that for Pliny, *diligentia* can be too much, and obscure the *gratia*, or grace of the work: Pliny, she writes, criticises the work of the sculptor Callimachus (fifth century BCE) for having been made with too much diligence: “*gratiam omnem diligentia abstulerit... memorabili exemplo adhibendi et curae modum.*” *Historia Naturalis*, (as ch. 1, note 53) 34.92, quoted in Perry, 452. From this Perry suggests that *gratia* and *diligentia* function oppositionally, and that *diligentia*, with its connotations of self-criticism, becomes closer to *cura*, or care; see idem: 452-455. Also note that here we have an example where the benefits of diligence, a virtue, if taken too far, can become as a vice. Perry also notes the ethical connotation of such terms as diligence of the late hellenistic period, shift from “artist-oriented discussions of qualities like *symmetria* to viewer-oriented discussions of qualities like *décor*, *auctoritas*, and *pulchritudo*.” Idem: 456.

⁶⁵ In Isidore of Seville, *Regula monachorum*, caput primum, PL 103, 557a. *De monasterio: Inprimis, fratres charissimi, monasterium vestrum miram conclavis diligentiam habeat, ut firmitatem custodiae munimenta claustrorum exhibeant: inimicus enim noster diabolus, sicut leo rugiens, circuit ore patenti quaerens unumquemque nostrum quem devoret.* And Cicero, *de officiis*, as ch. 4, note 60: 1.138-139: *Et quoniam omnia persequimur, volumus quidem certe, dicendum est etiam, qualem hominis honorati et principis domum placeat esse, cuius finis est usus, ad quem accommodanda est aedificandi descriptio et tamen adhibenda commoditatis dignitatisque diligentia.* For a broader discussion of Cicero’s appraisal of art in terms of its decorum and use, see Ann Leen, “Cicero and the Rhetoric of Art,” *The American Journal of Philology* 112 / 2 (Summer, 1991): 229-245; and for discussion of this passage, 237.

From this we might train ourselves to see in extant objects exemplary diligence. In his description of repoussé work, Theophilus describes the initial pressing out of the head of the figure:

When this [heating] is done and the plate has cooled of itself, you again gently and carefully (*leniter et diligenter*) rub it on the underside with the rounded tool, inside the hollow of the head. Turning the plate over, you again rub the upper surface with the smooth tool and depress the ground so as to raise the relief of the head. Once more beat lightly (*mediocri*) round it with the medium hammer, and, putting it on the fire, heat it again. You do this often, carefully raising it inside and out (*diligenter elevando interius et exterius*), frequently beating and as often re-heating it, until the relief is raised (*ducatur*) to a height of three or four fingers, or more or less, according to the size of the figures.⁶⁶

The head of the eagle on the bookcover of Roger of Helmarshausen, now in Trier, is a fine example of the great height of repoussé that Theophilus describes. The eagle head here is raised far above the surface of the metal, and the beak of the bird is entirely freestanding. Theophilus, in his instructions, emphasizes both the care and diligence required for the proper pushing out of the head of the figure, a task requiring repetitive procedures. The head of the eagle is the result of a repeated series of heating, pressing, and cooling of the metal, until it is raised, or in the Latin, *ducatur*, literally, led, to the desired height. Similarly, the patterns of the wings of the eagle, and the texture of feathers pressed into the metal can be interpreted in terms of this repeated careful action. Seen in light of Theophilus' instructions, then, we may see the raised height and textured

⁶⁶ Theophilus, Book III, ch. lxxiv, "Repoussé Work": *Quo facto et tabula per se refrigerata, iterum in inferiori parte cum curuo ferro fricabis leniter et diligenter fossam capitis interius, convertensque tabulam in superiori parte denuo cum aequali ferro fricabis, et depones campum et monticulus capitis elevetur, rursumque cum malleo mediocri circa ipsum leniter percutiens, appositis carbonibus recoques. Sic saepe facies diligenter elevando interius et exterius et crebro percutiendo, totiensque recoquendo, donec monticulus ille ducatur ad altitudinem trium digitorum aut quatuor, sive plus vel minus secundum quantitatem imaginum.* Dodwell, *DDA*, as ch. 1, note 5: 132-133.

surface of the repoussé eagle not simply as a display of virtuosity, but as the result of a prolonged procedure: it is the trace of a series of repeated actions that require both sustained mental focus and physical dexterity, so as to “lead” the metal to the desired height.

Akin to the term *diligenter* or *diligentia*, are the other adverbs and adjectives used in the text, which have similar connotations of carefulness: concern, or *cautela*, attentiveness, or *studiose*. Theophilus describes the preparation of color for painting glass, for example, using both *diligentissime* and *cautela*: “Grind [the ingredients] carefully together on the same stone with wine or urine, put them in an iron or lead vessel, and, following the drawing on the board, paint the glass with the utmost care.”⁶⁷ Notably, *studiose*, or carefully or attentively, is the adverb used to describe how to draw patterns for windows: “this done, draw whatever figures you have chosen, first with lead or tin, and then with a red or black colour, making all the lines carefully because it will be necessary, when you paint the glass, to match up the shadows and highlights to [the outline on] the board.”⁶⁸ Theophilus makes no comment as to how the drawings are to look, leaving that to the volition of the maker, his concern is that it is done with care. While translated by Dodwell as “carefulness,” *studiose* is related to the word *studium*, zeal or eagerness, but takes an additional meaning of attentiveness, similar to *diligenter*.

The adverb *studiose* is used elsewhere to denote a kind of cherishing, an extreme attentiveness. A letter from the monks of Stavelot to the monastery of Corvey,

⁶⁷ *...et commiscens haec tria simul, ita ut sit tertia pars pulvis et tertia viride tertia saphirum, teres pariter super ipsum lapidem cum vino vel urina diligentissime, et mittens in vas ferreum sive plumbeum, pingit vitrum cum omni cautela secundum tractus qui sunt in tabula.* Theophilus Book II, ch. xix: “The Colour With Which Glass is Painted;” Dodwell, *DDA*, as ch. 1, note 5: 49.

⁶⁸ *Quo facto pertrahe imagines quot volveris, imprimis plumbo vel stagno sicque rubeo colore sive nigro, faciens omnes tractus studiose, quia necessarium erit cum vitrum pinxeris, ut secundum tabulam coniungas umbras et lumina.* Theophilus, Book II, ch. xvii: “How to Construct Windows;” Dodwell, *DDA*, as ch. 1, note 5: 47.

congratulating them on the election of Wibald as their abbot in 1146, uses *studiose* to modify the verb *foveri*, to be cherished, in a parallelism with *diligenter*, in praise of the learning of the monks that is demonstrated by their choice of Wibald: “your learning has recognized well, that which ought to be cherished ardently, held and kept diligently...”⁶⁹ Used in parallel with *diligenter*, the use of *studiose* here, as by Theophilus, takes on shades of meaning that emphasize the word’s connotation of carefulness and attentiveness rather than eagerness and zeal. Theophilus uses *studiose* together with *mediocriter* to describe engraving of patterns in his chapter on die stamping: “They [the drawings on the die] are not engraved too deeply, but moderately and with care.”⁷⁰ Indeed Theophilus uses *studium* sparingly; his introduction of the word in the first prologue, connects it explicitly to labor: “Come now, my wise friend, in this life happy in the sight of God and man and happier in the life to come – by whose labour and zeal so many sacrifices are offered to God, be inspired henceforth to greater deeds of skill...”⁷¹ In addition, the zeal and labor is attributed to the wise man, the prudent man (*vir prudens*), who reads the text; it is a zeal that occurs with care and wisdom.⁷²

For Theophilus, then, the idea of care permeates the text, both in prologues and in the instructions. Zeal is an overarching idea read in the prologues; the specific action, however, requires carefulness, and thus actions are to be performed *studiose*. The two

⁶⁹ *quam studiose foveri, quam diligenter haberi et teneri debeat, vestra melius novit eruditio... Letter 27: Wibaldum abbatem iis concessum commendant, of 1146-1147. The letter is a response to letter no. 26: Corbeienses Stabulensibus de Wibaldo sibi abbate concessio gratias agunt. Philippus Jaffé, Monumenta Corbeiensia, Bibliotheca Rerum Germanicarum 1 (Berolini, 1865) 105.*

⁷⁰ *...et non sculpantur profunde nimis, sed mediocriter ac studiose.* Theophilus, Book III, ch. lxxv, “Die Stamping,” Dodwell, *DDA*, as ch. 1, note 5: 135.

⁷¹ *Age ergo nunc, vir prudens, felix apud Deum et homines in hac vita, felicior in futura, cuius labore et studio Deo tot exhibentur holocausta, ampliori deinceps accendere sollertia...* Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1 note 5: 64.

⁷² There are, however, slight variations in the early manuscript on this phrase. While most manuscripts use *vir prudens*, the Wolfenbüttel manuscript, uses *vir bone*, instead, as does Amiens MS 46.

levels, of zeal for the greater project, and extreme care and cherishing, even gentleness in the detail, might be seen as having an analogy in the objects themselves. The Eger cross, for example, is not complicated in its overall form. Yet examined ever more carefully, and ever more closely, more and more layers of detail emerge. The shimmering surface is filled with filigree, the wires of filigree themselves are beaded, ends are finished with small knobs and surfaces are bound with tiny bands. Perhaps, then, we might interpret the nature of the cross as a made object as operating on these two levels: the artisan makes the larger, religious offering of a cross on one hand in his zeal, while the minutely careful detail is witness to the performance of attentiveness, his work *studiose*, where each strand of filigree is attended to as an element to be cherished, through the endlessly repeated actions of beading, bending, and binding.

A third set of adverbs he uses, or nouns in the ablative that function as adverbs, elaborate on the idea of *studiose*, and are words of care and of moderation: *subtiliter* (subtly), *leniter* (lightly), or *moderate* (with moderation), *mensurate* (measured, with moderation), and *modicum* (gently). When setting gems and pearls, he writes, “You adjust the cloisons with delicacy and care, each one in its place, and you stick them on with paste over the fire. When you have filled one piece, you solder it with the greatest care lest the delicate work and the thin gold come apart or melt.”⁷³ Theophilus uses the word *confirmare* – to secure or attach - here to describe how to attach the cloisons to the work, stressing the care required, and he closes the section with a warning against damaging the delicate work by careless work. When two pieces of metal are to be bound

⁷³ ...ordinabis particulas subtiliter et diligenter, unamquamque in suo loco, atque confirmabis humida farina super carbones. Cumque impleveris unam partem solidabis eam cum maxima cautela, ne opus gracile et aurum subtile disiungatur aut liquefiat... Theophilus Book III, ch. liii: “Setting the Gems and Pearls;” Dodwell, *DDA*, as ch. 1, note 5: 105.

together, as in the case of the gem settings, as for instance on the Enger cross, it is a task to be done with such care so as to be on the one hand secure and on the other invisible.

Adverbs like *leniter* guide the maker, lest he perform delicate work with too much zeal. The application of varnish, which may not at first glance appear to be delicate work, gets similar treatment by Theophilus, as he instructs his reader to apply the varnish to the work *leniter*: “When the painting is completed and dried and the work has been carried out into the sun, carefully spread over it the sticky varnish, and when this begins to run with the heat, rub it gently with the hand.”⁷⁴ Similarly, in the making of sheet glass one is to “take [the pipe with the glass on it] out at once, put it in your mouth and blow gently (*suffla modicum*); then immediately take it from your mouth and hold it near your cheek in case you accidentally draw flame into your mouth if you inhale.”⁷⁵ The book on glass contains a number of instances where procedures have to be carried out with speed, yet as he does here, Theophilus still emphasizes that one be cautious and take care with the procedure, and he warns against calamities that could occur when such precautions are not made. The performance of techniques must be done gently, patiently, and with restraint, *leniter*. Like the monastic life, it is a matter of discipline. We might see then, a moral significance in having a light touch: the smooth sheet of glass, for example, the clear face visible in the Strasbourg fragment (Figure 20), for example, can thus be read as evidence of procedure, the proof of the restraint and gentleness of action on the part of the artist.

⁷⁴ ...*et pictura perfecta et siccata delato opere ad solem, diligenter linies illud glutine vernition, et cum defluere coeperit a calore, leniter manu fricabis...* Theophilus, Book I, ch. xxvi: “How Many Times the Same Colour May be Applied;” Dodwell, *DDA*, as ch. 1, note 5: 25.

⁷⁵ *Moxque eiciens appone ori tuo et suffla modicum, statimque removens ab ore, tene iuxta maxillam, ne forte, si retraxeris anhelitum, trahas flammam in os tuum.* Theophilus, Book II, ch. vi: “How Sheet Glass is Made;” Dodwell, *DDA*, as ch. 1, note 5: 40.

Vice is also implicit in the instructions and, as in the prologues, they are the result of the lack of virtuous action. Often, Theophilus' words of caution are used in conjunction with warnings against neglect, and indeed the predominant "vice" that Theophilus warns against are those of neglect and ignorance. The technique of repoussé, for example, requires a beaten gold or silver plate, which should be free of air-bubbles and cracks caused by negligent casting:

When you first cast this gold or silver, examine it, by carefully scraping and scratching around it, in case there happens to be any air-bubble or crack in it. This often happens when, through the carelessness, or negligence, or ignorance, or lack of skill of the founder, it is cast either too hot or too cold, or too quickly, or too slowly. If, when you have cast it with care and circumspection, you perceive a flaw of this kind in it, carefully dig it out, if you can, with a suitable tool.⁷⁶

Here Theophilus warns of the problems that may occur through negligence, and how to recognize the effects of poor work. The problems of cracks and air-bubbles, caused by inattentiveness, are set in direct opposition to the process of casting "with care and circumspection" (*cumque considerate et caute fuderis...*). Yet even if done with such care, the risk that there may be flaws in the metal remains, and so Theophilus also describes how to fix it, by "carefully" digging out the air bubble with a "suitable tool" (*diligenter, cum ferro ad hoc apto*). Theophilus warns against negligence, usually using the construction: "if it happens because of negligence..."⁷⁷ Theophilus follows the same

⁷⁶ *Quod aurum vel argentum, cum primo fuderis, diligenter circumradendo vel fodiendo inspice, ne forte aliqua vesica siva fissura in eo si, quae saepe contingunt ex incuria sive negligentia vel ignorantia aut inscitia fundentis, cum aut nimis calidum aut nimis frigidum, aut nimis festinato aut nimis productim effunditur. Cumque considerate et caute fuderis, si huiusmodi vitium in eo deprehenderit, cum ferro ad hoc apto diligenter effodies, si possis.* Theophilus, Book III, ch. lxxiv, "Repoussé work;" Dodwell, *DDA*, as ch. 1, note 5: 131-132.

⁷⁷ *si contigerit per negligentiam...* As in Book I, ch. xxix, "How [powdered] gold and silver are applied in books," Dodwell, *DDA*, as ch. 1 note 5: 28: If, as a result of carelessness, the glue has not been properly heated... *Quod si contigerit per negligentiam glutinis non bene cocti...*; Book I, ch. xxxviii, "Ink": "If, as a

patterns as in the description of air bubbles, describing the flaw that results, why it matters, and how to repair it.

Although not all of these terms occur, perhaps the chapter most emphatic about carefulness, restraint, and subtlety is that devoted to the pinning and soldering of handles for the chalice:

.... Place the bowl in the fire and *carefully* cover it with coal that you put on, and blow *gently* with a long breath until the soldering melts sufficiently. Take the bowl from the fire and, when it has somewhat cooled, wash it, and if the pins are firm –well and good. But if not, treat them as before.

When they are firm, file them off inside [the bowl], *polish smoothly so that no one can see where they are*, and, refixing the handles outside, *carefully* hold them in position. Then make fine holes through the middle of the handles opposite the pins, and similarly in the same place beyond the pins, and into these you fix them with all the work *perfectly finished so that no one can see how they are attached*. After this, *carefully* scribe and engrave these handles with files and iron tools and, if you want to niello on these, proceed in this way.⁷⁸

result of carelessness, the ink is not black enough, take a piece of iron, an inch thick, put it on the fire until it is red hot and then throw it into the ink.” *Quod si contigerit per negligentiam, ut non satis nigrum sit incaustum, accipe ferrum grossitudine unius digiti, et ponens in ignem sine candescere, moxque in incaustum procie*; idem: 35. Book III, ch. xxv, “Casting Silver”: “If, through some negligence, it happens that the cast silver is not sound, cast it again until it is.” *Et si per aliquam negligentiam contigerit, ut argentum fusum non sit sanum, iterum funde, donec sanum fiat*; idem: 76. Book III, ch. xxvii, “The Large Chalice and its Mould”: “Unless there is great negligence, all silver and gold, which is cast in this way, is invariably sound for working whatever you wish from it.” *Nisi contingat ex magna negligentia, semer est sanum ad operandum in eo quodcumque voveris*; idem: 79. Book III, ch. xxxviii, “Coating and Gilding the Handles [of the Chalice],” Dodwell, 90: “But, if it should happen, as a result of negligence, that some blemish appears on the silver where the gold is thin and unevenly applied, reapply the gold with the copper tool, and spread it out with the dry brush until it is even everywhere.” *Si vero ex negligentia contigerit, ut aliqua macula appareat in argento, ubi aurum tenue sit in inaequaliter positum, cum cupro superpone, et cum siccis setis, aequa, donec per omnia aequale sit*. And again in Book III, ch. lxxiv, “Repoussé Work”: “Then you gently and carefully raise [the details of the figures] inside with smaller rounded tools, taking particular care that the work is not fractured or pierced. But if this should happen through ignorance or negligence, it should be soldered in this way.” *Et sic interius cum minoribus curvis ferris elevabis leniter et diligenter, summopere cavens ut non rumpatur opus aut perforetur. Quod si ex ignorantia vel negligentia contigerit, hoc modo solidari debet*; idem: 133

⁷⁸ Theophilus, Book III, ch. xxxi, “Soldering the Silver;” Dodwell, *DDA*, as ch. 1 note 5: 83.

Throughout the instructions, Theophilus uses words to describe *how* actions are to be performed, and the techniques he describes follow these principles. Good labor is defined by the virtues which it puts into play: working with care, knowing and following appropriate techniques, and understanding how to prevent, as well as repair problems. As in the descriptions of the gifts, these fall into categories of intent, knowledge, understanding, and proper action. This concern for procedure overrides concern for how something looks.

The procedure by which an object is made therefore becomes a path of potential virtue, as every task along the way becomes laden with moral significance. The process of art making, thus sets man on a trajectory of virtue or vice; he must choose whether to make an object, and with what intent. An object ought to be made for the glory of God, not for the pride of man. In turn, the object itself becomes the trace of good behavior, it is evidence of the presence of virtue.

The Visual Trace of Procedure and Skill

Theophilus' reluctance to describe iconography or even to comment on the appearance of finished objects thus aligns with his emphasis on procedure as a moral activity, and his conviction that the object is the trace of that activity. His instructions for affixing the handles of the chalice and for constructing a censer, built shape upon shape, with figures added to each point of the geometry, exemplify this emphasis on process. The procedure for soldering is such that its not being visible at the end is its chief visual characteristic: “fix them with all the work *perfectly finished so that no one can see how they are*

attached.” Objects are described as they emerge through work, they are evidence of a process rather than an finished product to be copied.

The process by which an object is put together thus may or may not be a part of the decorative program: certain kinds of work are be visible, and certain kinds not. The program of the portable altar of Henry of Werl shows how the traces of the process of assembly can themselves function as ornament. Here, the entire lower beveled edge of the altar is covered with the studs used to attach the plate onto the wood beneath. The number of studs visible here by far exceeds the amount necessary to attach the plaque to the wood, and other altars, such as the Stavelot altar, which has a vegetal pattern in repoussé lining this edge, or the Abdinghof altar, with an engraved border with acanthus pattern, have far fewer. Yet even in the Abdinghof altar, the number of studs used to attach the band to the altar is notable, when compared to such works as the mid-eleventh century altar in the treasury of the Cathedral of Namur, which has a smooth beveled band, attached by only a few studs, or the earlier altar of Gertrude (Figure 46), which has no nails visible on this border at all. This might suggest that Roger focused more than normal attention on the process of assembly, leaving traces, making evidence of labor part of the decorative program. Theophilus’ descriptions of objects likewise focus on procedures, the steps en route to the final product. This suggests that material signs of process, as seen in the altar of Henry of Werl, can lend value to a work as signs of good procedure. The process is moralized and can be read as a theme in the finished object.

Process seems to be of greater interest to Theophilus than iconography; in a similar way he defines skill according to procedure. Skill is honed by carefulness and diligence. He never suggests that skill resides in a manner of rendering figures or

patterns, or even that it is evident in compositional complexity. In the chapter on repoussé, Theophilus describes the figures to be made, but his only comment on how they should look is that the head should be in higher relief; all other comments regarding the forms have to do with the carefulness: “Then, with the tracer, mark out the body, or bodies, of the figures, and so, by depressing and from time to time beating, you can raise them as much as you want. Take care of this, however, that the head is always in higher relief...”⁷⁹ Skill is defined according to proper forms of labor, it is a knowledgeable working of material, a performance of procedures according to ethical terms of diligence, carefulness, attentiveness, precisely those virtues which Theophilus enumerates explicitly in the prologues as being those that inhibit the vices of negligence, of idleness, of sloth, and of misbehavior. Thus skill too, becomes moralized, as it is linked with knowledge and proper action on the part of the artist. The skill of the artist, and the object which demonstrates that skill, are valued according to ethical standards.

It is the last pointing figure in the Harley manuscript that highlights the value of good workmanship. Thus we see, from the marks in the manuscript, a set of assumptions about proper artisanal labor: we might see how *On Diverse Arts* defines a manner of skill and a set of properties by which skill can be measured. Introduced in the prologues, and repeated in the instructions, is praise of skills that Theophilus can relate to carefulness; for Theophilus skill is evident in diversity, in variation, in subtlety. This is most clearly evident in the first prologue, as the author describes the knowledge of art to be had from other places: “If you will diligently examine it, you will find in it whatever kinds and blends of various colours Greece possesses; whatever Russia knows of

⁷⁹ Theophilus, Book III, ch. lxxiv, “Repoussé work”: *Deinde cum pertractorio ferro designa corpus vel corpora imaginum, et ita deducendo et interdum percutiendo elevabis ea, quantum libuerit, hoc tamen procurans ut caput semper altius sit.* Dodwell, *DDA*, as ch. 1, note 5: 133.

workmanship in enamels or variety of niello; whatever Arabia adorns with repoussé or cast work, or engravings in relief: whatever gold embellishments Italy applies to various vessels or to the carving of gems and ivories: whatever France esteems in her precious variety of windows: whatever skilled Germany praises in subtle work in gold, silver, copper, iron, wood and stone.”⁸⁰ Here the Latin text is illuminating:

*Quam si diligentius perscruteris, illic **invenies** quicquid in diversorum colorum generibus et mixturis habet Graecia, quicquid in electrorum **operositate** seu nigelli **varietate** novit Ruscia, quicquid ductili vel fusili seu interrasili **opere** distinguit Arabia, quicquid in vasorum **diversitate** seu gemmarum ossiumue sculptura auro **decorat** Italia, quicquid in fenestrarum **pretiosa varietate** diligit Francia, quicquid in auri, argenti, cupri et ferri lignorum lapidumque **subtilitate sollers** laudat Germania.*

Theophilus introduces the passage with *invenies*, meaning to discover or find. The word is also used by Anselm to signify the approach to God, and the word itself perhaps may be more closely translated as “coming near,” or “coming to” knowledge. The rest of the passage uses terms *diversitate*, *varietate*, *subtilitate sollers*. Techniques are praised because they demonstrate these values: diversity, variety, and ingenious subtlety.

In the second prologue qualities of variety and diversity appear again, first as the reason that art should be studied: “how sweet and delightful it is to give one’s attention to the practice of the various useful arts”.⁸¹ It is used again at the end of the prologue as the word used to praise the techniques and products of glass that Theophilus will describe:

I have approached the temple of holy wisdom, and beheld the sanctuary filled with a variety of all kinds of diverse colours with the usefulness and nature of each one set forth.... I have, like a diligent seeker, taken particular pains to discover by what ingenious techniques a building may be

⁸⁰ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 4.

⁸¹ ...*quamque dulce ac delectabile diversarum [0]utilitatum exercitiis operam dare* Theophilus, Prologue II; Dodwell, *DDA*, as ch. 1 note 5: 36.

embellished with a variety of colours, without excluding the light of day and the rays of the sun. Having applied myself to this task, I understand the nature of glass, and I consider that this object can be obtained simply by the correct use of the glass and its variety.⁸²

Here the quality of glass is praised repeatedly for its variety and for its use, even the use of *ingenio*, in the comment on “ingenious techniques” (*artis ingenio*) refers to the variety of color that is made possible. This is a mirror of the reference to *subtilitate sollers* in the first prologue, for there too the ingenious aspect of *sollers*, or cleverness, is strictly in reference to subtlety and, once more, to carefulness.

In third prologue, the praises of skill too concern variety, diversity and subtlety. The height of the students’ work, when he is described by Theophilus as having his heart “filled with the Spirit of God,” is described as “variety of work”⁸³ As he continues to describe the gifts of the Holy Spirit, the gift of intelligence is linked to ingenuity, but here, as above, the purpose of ingenuity is to create variety: “Through the spirit of understanding, you have received the capacity for skill – the order, variety and measure with which to pursue your varied work.”⁸⁴ Lastly, as Theophilus describes the effect of the art on the viewer, its final purpose, he again has recourse to the concepts of variety and diversity: “if [the human eye] regards the profusion of light form the windows, it marvels at the inestimable beauty of the glass and the infinitely rich and various

⁸² ...*apprehendi atrium agiae Sophiae conspicioque cellulam diversorum colorum omnimoda **varietate** refertam et monstrantem singulorum **utilitatem** ac naturam.... quasi curiosus explorator omnimodis elaboravi cognoscere, quo **artis ingenio** et **colorum varietas opus decoraret**, et lucem diei solisque radios non repelleret. Huic **exercitio** dans **operam** vitri naturam comprehendo, eiusque solius **usu** et **varietate** id effici posse considero.* Theophilus, Prologue II; Dodwell, *DDA*, as ch. 1 note 5: 37.

⁸³ ... *cum eius ornasti domum tanto decore tantaque operum varietate.* Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 62.

⁸⁴ *Per spiritum intellectus cepisti **capacitatem ingenii**, quo ordine qua varietate qua mensura valeas insistere diverso operi tuo.* Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 62.

workmanship.”⁸⁵ Throughout the instructions, then, the words used by Theophilus to praise good work, in short to define good work, remain consistent. Good work is characterized primarily by variety and diversity. Ingenuity or cleverness, used quite less often than the former two, take on a subsidiary role: they are what enable variety and diversity.

A central characteristic of early twelfth-century metalwork is in fact, the concern for variety. As Meyer Schapiro has discussed, this is a visual characteristic of Romanesque art that appears to have held great value.⁸⁶ Yet, as seen here, from the perspective of labor and notions of artistic work according to Theophilus, the idea of variety and diversity are technique-based, not, as in the case for sculpture, image based. We may thus read varieties of materials and varieties of techniques as determiners of quality of work, as these are the markers of skill, of knowledge, of careful procedure.

Evidence of skill, and of variety in the performance of skill, is therefore that part of the object that carries the trace of the virtuous and knowledgeable procedure that produced it. The altar of Henry of Werl has often been noted by scholars for the many different techniques that it displays, an analysis which has supported claims that Roger of Helmarshausen can be identified as Theophilus.⁸⁷ Seen in light of Theophilus’ notion of

⁸⁵ *si luminis abundantiam ex fenestris intuetur, inestimabilem vitri decorem et operis pretiosissimi varietatem miratur.* Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 64.

⁸⁶ Meyer Schapiro, “On the Aesthetic Attitude toward Romanesque Art,” *Romanesque Art, selected papers* (New York: Braziller, 1977) 1-27.

⁸⁷ Otto von Falke and H. Frauberger, eds. *Deutsche Schmelzarbeiten*, as ch. 3, note 34: 13-14; Alois Fuchs also analyzed the altar, and he too argued that the variety of techniques seen on the altar of Henry of Werl is a display of virtuosity and technical ability. Fuchs also argued that the altar illustrated the techniques described in *On Diverse Arts*: Alois Fuchs, *Die Tragaltäre des Rogerus in Paderborn: Beiträge zur Rogerusfrage* (Paderborn: Bonifacius-Druckerei, 1916); Herbert Westphal and Francois Schweizer, “Beobachtungen an dem Tragaltar des Rogerus von Helmarshausen aus dem Paderborner Domschatz: die Untersuchung der Metall- und Dekorationstechnik, eine Quelle kulturhistorischer Erkenntnisse?” *Medieval Reliquary Shrines and Precious Metalwork: Proceedings of a Conference at the Musée d’Art et d’Histoire*, Geneva, 12-15 September 2001, ed. Kilian Anheuser (London: Archetype Publications, 2006) 71-74.

skill and labor, however, the demonstration of skill and technique on the Henry altar takes on new meaning as evidence of good, knowledgeable labor, and the trace of virtue: it shows the careful work of repoussé in the Christ figure, the patterns of engraving and stamping on the sides, of niello on the edges, of openwork in the figure of the Virgin, in filigree in the borders. If we see this object as demonstrating a variety of techniques, then, we may read it as the trace of good labor and the evidence of knowledge and skill.

Theophilus emphasizes procedure as the trace of virtue, and Roger does the same.

The idea that skill and variety are marks of monastic and artisanal virtue enables us to see how the objects of Roger would be valued for their technique. We can begin to read sophisticated technique as a substitute for expensive material ornament. Theophilus, in fact often shows just how to vary of techniques to save on expense. In his chapter on tinfoil, for example, which he introduces as a substitute for gold leaf he says: “If you have no gold, take tinfoil which you make in this way.”⁸⁸ From this perspective, the display of techniques evident on the altar of Henry of Werl takes on additional significance. Although they are otherwise closely related, the altar of Henry of Werl is far less ostentatious in material terms than is the Gertrude altar. Both, for example, have bands of filigree on the top panel, yet the Henry altar has only one band of filigree, while that of Gertrude has two; similarly, the jeweled bands running around the top and bottom edge of the Gertrude altar are replaced by text-bearing bands done in niello on the Henry altar, while only a single jeweled band, with alternating stones and four-paneled flowers, has been placed on the top. Similarly, while the Gertrude altar contains a gold band, containing three stones alternating with pearls on either side of each corner, for a total of

⁸⁸ Theophilus, Book I, ch. xxiii, “Gold Leaf;” Dodwell, *DDA*, as ch. 1, note 5: 22, and ch. xxiv, “Tinfoil;” Dodwell, *DDA*, as ch. 1, note 5: 22.

eight, the Henry altar only contains four bands, and the three stones alternate with decorative nails, rather than more expensive pearls. In each case the altar of Henry of Werl scales down the material ornamentation visible on its counterpart, the Gertrude altar, and in each case compensation is made through technique.

Although Roger used less ornament on the Henry altar than he predecessor did on the earlier Gertrude altar, he placed it very carefully and used available techniques to create bold effects: there may be only half as many bands of stones, but they are installed alongside the most sacred figures on the object: Christ, on one end, and the Virgin, on the other. Indeed, this particular kind of band may have carried significance as a mark of sanctity: on the bookcover of the abbess Theophanu, dating to c. 1050 and now in the treasury of the Essen Minster, we find a very similar wide band of gold, set with three stones, ringed with wire and alternating with pearls; the bands here seem to act as compositional pointers, leading from the outer edge of the cover to the inner ivory depicting Christ on the cross.

Lastly, while the side panels of both altars are decorated with a series of engraved arches framing similiarly engraved apostles, the Gertrude altar is decorated with figures in repoussé and arches lined in enamels with geometric patterns. On the Henry altar, technique compensates for the absence of expensive materials. Roger has used the same composition of figures, yet he renders them with engraving and employs such techniques as *opus punctili* used to create the textural effects that make the backgrounds recede and the figures come forward. Artistic technique and skill is highlighted.

Theophilus' emphasis on process and technique reaches a climax in the third book, with the example of the spirit-filled artist, Bezeleel. Only in the highest stages of

the quest for wisdom, when the artist has achieved the gift of understanding and acquired variety of virtuous skills, can Bezeleel be invoked; for only then is the artist “filled... with the spirit of wisdom and understanding and knowledge in all learning for contriving and making works in gold and silver, bronze, gems, wood and in art of every kind.”⁸⁹ Through his focus on process, on learning and working and virtue, Theophilus ultimately defines art making as embellishment. Thus the examples of Bezeleel and David, and in the citation of the gifts, in the third Prologue, are the climax and goal of the journey toward *similitudo*. The approach to God is the attainment of “a capacity for all arts and skills,” which is made manifest in embellishment, the act of performing skill for the sake of God.

Throughout the text, Theophilus refers to the activity of the artist, as work (*opere* or *labore*), underscoring the active element of embellishment. Bezeleel’s work is described in terms of its skill and the virtues of the Lord which it makes manifest: “[The Lord] had filled them with the spirit of wisdom and understanding and knowledge in all learning for contriving and making works in gold and silver, bronze, gems, wood, and art of every kind.”⁹⁰

For Hugh of St. Victor as well, the mechanical arts are admirable for being grounded in labor:

Again, philosophy is the art of arts and the discipline of disciplines’ – namely that toward which all arts and disciplines are oriented. Knowledge can be called an art ‘when it comprises the rules and precepts of an art’ as it does in the study of how to write; knowledge can be called

⁸⁹ Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1 note 5: 62.

⁹⁰ *Legerat nameque in Exodo Dominum Moysi de constructione tabernaculi mandatum dedisse et operum magistros ex nomine elegisse, eosque spiritu sapientiae et intellegentiae et scientiae inomni doctrina implesse ad excogitandum et faciendum opus in auro et argento et aere, gemmis ligno et universi generis arte...* Theophilus, Prologue III; Dodwell, *DDA*, as ch. 1, note 5: 62.

a discipline when it is said to be ‘full’ as it is in the instructional science, or mathematics. Or, it is called art when it treats of matters that only resemble the true and are objects of opinion; and discipline when, by means of true arguments, it deals with matters unable to be other than they are. This last distinction between art and discipline is the one which Plato and Aristotle wished to establish. Or, that can be called an art which takes shape in some material medium and is brought out in it through manipulation of that material, as is the case in architecture; while that is called a discipline which takes shape in thought and is brought forth in it through reasoning alone, as is the case in logic.⁹¹

Hugh defines *ars* as that which entails the manipulation of material. In addition, Hugh uses the verb *explicatur*: “*Vel ars, dici potest, quae fit in subjecta materia et explicatur per operationem, ut architectura.*” The verb *explicatur* is significant, as it is often used in relation to verbal explanations, and has connotations of pulling out, drawing out. It is not a fresh creation, it is not originary, but rather a remoulding.

From the example of Bezeleel, from the emphasis on labor, and from the related explanation by Hugh of art as something defined by its action of manipulation and “drawing out,” we gain further support for reading objects as traces of labor. Even the phrase Theophilus uses to describe his own work evokes the importance of process: “be eager and anxious to look at this little work (*schedula*) on the various arts, read it through with a retentive memory, and cherish it with a warm affection.”⁹² Calling his book is a *schedula*, suggests that, like the art object which is the trace of transformation of

⁹¹ Hugh of St. Victor, *Didascalicon*, Book II, ch. 1: “Concerning the Distinguishing of the Arts;” Taylor, as ch. 2, note 16: 61-62. The latin of this last phrase, as given in Migne’s edition for the Patrologia Latina, uses the word *operatio*: *De discretione artium. Quam differentiam Plato et Aristoteles esse voluerunt inter artem et disciplinam. Vel ars dici potest, quae fit in subjecta materia et explicatur per operationem, ut architectura.* PL 176, lib. 2, cap. 1, 751d-752b.

⁹² *...nec defatigati discendi desiderio, intolerabili tamen acquirunt labore, hanc diversarum artium scedulam avidis obtutibus concupisce, tenaci memoria perlege, ardenti amore complectere.* Theophilus, Prologue I; Dodwell, *DDA*, as ch. 1, note 5: 4.

material, Theophilus' book comes not from nothing, but is rather a refashioning, and can be valued as the trace of virtuous work.

According to Leclercq, the word *schedula* can refer simply to the parchment upon which something is written,⁹³ but the term is defined by Hugh of St. Victor as that which is still being added to, a collection which is still in progress:

A codex is composed of many books, a book is composed of one volume. And a codex is so called, by transference, from the trunks (*codicibus*) of trees or vines, as if it were a trunk because it contains a multitude of books coming out of itself like so many branches; a volume (*volumen*) is so called from 'to roll up' (*volvere*). *Liber* is the inner rind of a tree, upon which the ancients used to write before the use of paper or parchment. For this reason they used to call writers *liberarii*, and a volume a *liber*." *Scheda* (a leaf of paper), whose diminutive form is *schedula*, is a Greek word. What is still being corrected and has not yet been bound in books is properly called a *scheda*.⁹⁴

Lessing's initial title for Theophilus' work was the *Schedula diversarum artium*, taken from this phrase, but with the later publications of the text, the title *De diversis artibus* was adopted, as that is how the text is referred to in the rubricator's inscription on the first folio of the Vienna manuscript, and in a title on the initial folio of the Cambridge manuscript.⁹⁵ In many ways *Schedula* would be preferable as it underscores the idea of virtuous manipulation of preexisting materials for a worthy end, the process and action of art making.

⁹³ Leclercq, *Love of Learning*, as ch. 2, note 182: 177.

⁹⁴ Hugh of St. Victor, *Didascalicon*, Book IV, ch. 16: "Some Etymologies of Things Pertaining to Reading," Taylor, as ch. 2, note 16: 118-119.

⁹⁵ Vienna ÖNB 2527, fol. 1r reads: incipit prologus libri primi Theophilus qui et Rogerus de diversis artibus. Cambridge, University Library MS E e 6.39 part III, fol. 1r introduces *On Diverse Arts* with a title which reads: *prologus primum liber Theophili monachi et presbyteri de diversis artibus in primis de coloribus*.

Dodwell interpreted Theophilus' description of the text as a *schedula* as "probably simply the self-deprecatory kind of remark about 'this little work of mine' that any author might make of his own composition."⁹⁶ However, it may pay to take the author at his word. Bernard Cerquiglini speaks of the way that medieval texts could be defined by their "joyful excess," their lack of finish and closure; from this notion Theophilus' referral to his work as a *schedula* emerges as having valence after all.⁹⁷ Moreover if, as Thomas Haye suggests, the genre of didactic literature of the Middle Ages operates according to the assumption that God is the ultimate author, then any text is a variation, a presentation of received ideas in a new form.⁹⁸ In these cases, Hugh's definition of art as a drawing out, a manipulation of material, corresponds with the patterns evident in Theophilus' text. The work is not as something with a strict beginning and end, but rather as a evidence of process, of labor, of transformation.

Through prologues and instructions, Theophilus moralizes the act of artistic labor. Every step becomes a choice, from the decision to make any object at all, to the decision how to make that object. Theophilus defines good procedure, making process serve virtue. The process of making is therefore central to his theory of art; objects, as a result, are traces of process. Theophilus begins with mental orientation and shows how to apply the practice of virtue to artistic work itself, so that the object can be viewed as the trace of good work, virtue, and godliness. Taken together, the practicalities of technique define a mode of art making that adheres to certain standards, standards that are explicitly, if

⁹⁶ Dodwell, *DDA*, as ch. 1 note 5: lxxiii.

⁹⁷ Bernard Cerquiglini, *In Praise of the Variant*, as ch. 1, note 101.

⁹⁸ Thomas Haye, *Das lateinische Lehrgedicht im Mittelalter, Analyse einer Gattung* (Leiden: Brill, 1997) 91.

abstractly, presented in the prologues to the three books, implicitly described in the instructions that follow, and made manifest in the object.

Chapter Five

On Diverse Arts and its Literary Afterlife:

Recipe Book, Encyclopedia, or Didactic Text?

The thirteenth-century copy of Theophilus' text that is now Cambridge University Library MS E e 6. 39 binds *On Diverse Arts* along with a rich array of texts, showing the very different kinds of literature with which Theophilus came to be associated. Most probably from England, the manuscript is the earliest surviving evidence that the text circulated beyond northern Germany and the region of the Meuse.¹ A small, clean volume, it is a partial copy, containing nearly all the chapters in Book one with its prologue, and a number of chapters from Book three. The third text in the volume, *On Diverse Arts* follows Palladius' *Opus Agriculturae*, a fourth-century treatise describing the cultivation of crops and management of land, and *De viribus herbarum*, a text describing the medicinal properties of herbs often ascribed in the Middle Ages to the poet Macer, a first-century BCE Roman, though probably written by Odo of Meung, an

¹ Dodwell has localised the manuscript to England on the basis of paleography, see Dodwell, *DDA*, as ch. 1 note 5: lxvi. British Library Egerton MS 840A, also dates to the thirteenth century, and may indeed also be English, but its origins are less certain. The Cambridge manuscript was originally known as Trinity College MS R 15 5; it was split in the nineteenth century and the Theophilus portion was transferred to London. See Watson, "A St. Augustine's Abbey, Canterbury, Manuscript," as ch. 2, note 31. This manuscript, however, was one of the first manuscripts to be published, by Raspe, in his book on the history of oil painting, published in the eighteenth century. See Dodwell, as ch. 1, note 5: lxvii; Johnson, "The Manuscripts of the *Schedula*," as ch. 1, note 5: 94; and Raspe, *A Critical Essay on Oil-Painting*, as ch. 1, note 25.

eleventh-century physician.² These texts were bound together from at least the early thirteenth century: a contemporary table of contents lists these three together, as well as an additional five: *Speculum penitentis*, *Lapidarium*, *Glose super antidotarium*, *Alexander de arte predicandi*, *Tropus magistri W. de Montibus*. These five are no longer bound with the manuscript and seem to have been separated at least from the fifteenth century, as an inscription in the margin of the table of contents, dating to that period, notes that they are “non infra.”³ The provenance of the manuscript is unknown, and according to Dodwell the text does not derive directly from any surviving manuscript.⁴ As evidence of a wider dissemination of the text, and because of the kinds of texts with which it is, or once was, bound, the manuscript opens up the question to be investigated in this chapter: that of how *On Diverse Arts* operated within and across literary genres, as it was copied, disseminated, reworked, and reused in different contexts, for different purposes.

On Diverse Arts sits uneasily amongst closely related genres. Its descriptions of procedures cast it as an instruction manual; its ambition to cover vast amounts of knowledge of the world, from the mixing of pigments to the acquisition of metal, suggests it is a sort of encyclopedia; its employment of spiritual themes as a defense of art in the monastery suggests it is a moralizing treatise. The surviving manuscripts in which the tract is contained vary, in form as well as content: there are complete manuscripts from later periods, and manuscripts preserving excerpts from earlier periods.

² Gerrit Bos and Guido Menschung, “Macer Floridus: A Middle Hebrew Fragment with Romance Elements,” *The Jewish Quarterly Review* 91, nos. 1-2 (2000): 17-51; 17-18.

³ Cambridge University Library MS E e. 6 39, fol. 2v; see also *A Catalogue of the Manuscripts Preserved in the Library of the University of Cambridge* 2 (Cambridge: Cambridge University Press, 1980, rpt. Munich: Olm Verlag, 1856-1857) 276-277.

⁴ Dodwell, *DDA*, as ch. 1 note 3: lxvi.

Such variety disproves any theory positing progressive fragmentation, where full copies of the text were dismembered into fragments as the centuries wore on. Nonetheless broad patterns may be observed, and clusters of manuscripts shed light on how *On Diverse Arts* may have been classified, read, and understood by different readers.

While heretofore we have been seeking to place *On Diverse Arts* in the early twelfth-century monastic context in which first written, copied, read – that is not the whole story. Readers from the twelfth century and onward have pulled out different threads from the text; they classified it as belonging to different genres of literature, helping us to appreciate the complexity of the treatise. The latent multifunctionality of *On Diverse Arts* explains why scholarship has had trouble categorizing it, and has interpreted it according to different characteristics and in light of particular priorities.

The Cambridge Manuscript: A Collection of Knowledge for Spiritual Work

Even as a collection of texts, the Cambridge manuscript shows evidence of coherent interests, incorporating *On Diverse Arts* within a larger range of religious texts. With the Cambridge manuscript as a starting point, this chapter takes what Cerquiglini calls the “individual variant” of the text as a guide for interpretation, departing from the traditional search for an “original” version, or a definitive understanding of Theophilus.⁵ *On Diverse Arts*, as we have seen, takes on a number of different guises, from the cramped studio manual in Vienna, to the large elegant bridge to antiquity in Wolfenbüttel, to the highly

⁵ Bernard Cerquiglini critiques the assumption that there exists an “original text” and instead suggests that it is the individual variant and instabilities of a text that might guide a reading in *In praise of the variant*, as ch. 1, note 103. Around the same time, a special volume of the medieval journal *Speculum*, appeared, which was dedicated to the idea of just such a “new philology.” Here, Gabrielle Spiegel refuted the idea of a singular, original text, and instead suggested the ways in which texts might be generative, creating meaning and variations of their own: Gabrielle M. Spiegel, “History, Historicism, and the Social Logic of the Text,” as ch. 1, note 103, and Lee Patterson discussed new methodologies for textual analysis in which post-modern theory might apply to medieval culture: “On the Margin,” as ch. 1, note 103.

individual text of the Harley collection. From the Cambridge manuscript, interesting patterns of reading emerge, and possibilities for multiple meanings come to the fore. As Howard Bloch has suggested, a written text was understood to have limits in its function, to be an imperfect expression, and therefore incongruities, multiplicities, and composite texts were unproblematic for the medieval reader.⁶

The Cambridge manuscript contains carefully selected portions of *On Diverse Arts*. With the prologue and first book of the text making up the majority of the extract, the title was adjusted accordingly and refers to the text as one on painting: “Prologue to the first book of Theophilus monk and priest, *On Diverse Arts*, first, on colors.”⁷ There is little distinction made between the end of Book one and the excerpted chapters from Book three. Without capitula, incipits or explicits, the only mark of the new section is the break in numerical chapter order. The chapters from Book three do not follow the order given in other manuscripts, yet the logic of choice emerges. The extracts include two chapters on cleaning gold, silver, and gilding, and the soldering of tin, five chapters on iron and the making and tempering of files, two chapters on bone carving, and one on polishing gems. With the exception of the bone carving, the chapters chosen seem to be concerned with the care of existing objects: cleaning, filing, re-soldering, and tempering; not on techniques that employ precious metals, such as repoussé or engraving.

Immediately after these chapters come forty-one chapters from the *Mappae clavicula*.

These are not named as such, but continue from those offered by Theophilus, introduced

⁶ Howard R. Bloch, “New Philology and Old French,” as ch. 1, note 103. This is also the major current of A. J. Minnis, *Medieval Theory of Authorship*, as ch. 2, note 14.

⁷ *Prologus primi libri Theophili monachi et presbyteri, de diversis artibus in primis de coloribus*. Cambridge University Library MS E e 6.39, table of contents.

only by seven lines of hexameter that are often found in *Mappae clavicula* manuscripts.⁸ The text of Theophilus, then, seems to have been copied with specific purposes in mind. The compiler was interested in the mixing of colors, as the title suggests, and selected, too, information that might be useful for the care of objects.

Line drawings in the margins of the manuscript and the state of the parchment suggest that at first, the manuscript was likely read as a technical guide. There are three drawings, each very faded. On folio 6v a woman, perhaps a virtue, holding a lily is drawn, on folio 12r a lion; and folio 13v a dragon. The drawings are consistent, executed with an elegant line, and seem to date to the thirteenth century. They are placed in the text at an off-angle, in the bottom margin, as though, like the drawings in the Vienna manuscript, they are recordings for memory, or patterns, not directly related to the text itself. The parchment is dirty and a later trimming has cropped the drawings, which may be evidence of the transformation of the text from working manual to a library book. Regardless, when seen in light of the specificity of the title and chapters chosen for this transcription of *On Diverse Arts*, the drawings suggest that the text did indeed serve a practical function at one time, if briefly. That it was bound with contemporary transcriptions of Palladius, Macer, and William de Montibus in the thirteenth century, however, shows that this is only a part of the story, and that it could be seen to relate to other genres of literature as well.

⁸ Johnson, "The Manuscripts of the *Schedula* of Theophilus Presbyter," as ch. 1, note 5: 87. See Appendix. These lines of hexameter also introduce the *Mappae clavicula* recipes in the fourteenth-century manuscript at Magdalene College, Oxford, and in the Phillipps copy of the *Mappae clavicula*. The hexameters seem to be associated primarily with the *Mappae clavicula*, not with Theophilus, as they usually occur with this elder text and do not occur in Theophilus manuscripts that do not also contain *Mappae clavicula* recipes: they precede the prologue to Book one in the thirteenth-century London Egerton manuscript and in the Paris manuscript of Jean le Bègue, and in a fifteenth-century copy of *On Diverse Arts* in the Wolfenbüttel library they occur after the prologue, introducing the chapters.

Similarities across the manuscript suggest that the texts were considered a related group, even in the thirteenth century. Most significantly, the hand that transcribed the Palladius text also wrote the table of contents, so it is clear that Theophilus' text was at the heart of a consciously compiled assemblage. This supposition is supported by the significant visual consistency in the volume. Throughout the manuscript there are roughly twenty-seven or twenty-eight lines to a page, and prickings and rulings are consistently applied. Although not transcribed by the same hand, the script of the Theophilus and Palladius texts are very similar, and both contain three-line initials. Those of the former are written entirely in red until the last few, which are written in blue, while those of the latter, are written in alternating red and blue. Even the short, squat letters of the Macer text show are broadly consistent with the script used in the transcription of Palladius and Theophilus.⁹ The size of the margins, however, varies greatly, because the pages were trimmed: this is especially visible in the folios containing Theophilus. Yet it is the transcription of Macer which presents the most differences: it is written two columns as opposed to one and contains only red and green initials. It seems likely that this was the earliest of the three, with the Palladius text added last, at roughly the same time as the table of contents.

It appears likely, then, that the texts were written in one scriptorium, over a relatively short period of time; the contemporary table of contents suggests we read the book as a unit, a purposeful compilation that served particular functions. Such composite texts were not uncommon in the Middle Ages, and as Minnis has shown, in them we may best come to grasp the authority of a given text, and begin to see its potential for carrying

⁹ See for example, the serifs and tails of letters such as h, in Macer fol. 1v and Palladius 31r, though the Macer hand writes shorter and fatter letters such as 'a': as on fol. 6r, in contrast to the elegant narrow lettering of the Palladius scribe, 18v.

meanings, as constructed through literary patterns and structures, rather than through any reference to singular intent or authorship.¹⁰

The subject matter of the added texts generate themes that help us to look anew at Theophilus, even as they remain a set of individual pieces. The other two texts in the Cambridge manuscript describe natural phenomena and the manipulation of the natural world. The first is Palladius' book on agriculture, an antique text that treats the properties of soil, of air, of water, instructing the reader on how best to employ these for the growing of plants; Macer's text, the second, categorizes and describes the medicinal properties of herbs and plants.¹¹ Both were thought in the Middle Ages to be antique sources, enhancing their value as a source of knowledge, and the progression from Palladius to Macer seems even to contain a logic: with Palladius' text describing the earth, its soil, and the instructions for activities like sowing and reaping harvests, Macer's text moves on to explain how such plants might be used, describing their medicinal properties.

The thirteenth-century table of contents, as noted above, lists five texts in addition to those of Palladius, Macer, and Theophilus. Three of these concern the writing of sermons, and two treat the conditions of the natural world. The *Speculum penitentis* and

¹⁰ Minnis, Scott and Wallace, *Medieval Literary Theory and Criticism*, ch. 1, note 103; Minnis, *Medieval Theory of Authorship*, as ch. 2, note 14; Mary A. Rouse and Richard H. Rouse "Florilegia and the Latin classical authors of twelfth- and thirteenth-century Orléans," *Viator* 10 (1979) 131-160; Malcolm Beckwith Parkes, and Andrew G. Watson, *Medieval Scribes, Manuscripts and Libraries; Essays Presented to N. R. Ker* (London: Scolar Press, 1978); Maureen Bell, "Monastic Libraries, 1400-1550," *The Cambridge History of the Book in Britain* 3 (Cambridge: Cambridge University Press, 1999); Brownrigg, *Medieval Book Production*, as ch. 3, note 11; Rouse and Rouse, "*Ordinatio* and *Compilatio* Revisited," as ch. 3, note 3. For the Cistercian context, see Walter Cahn, "The Rule and the Book," as ch. 4, note 56.

¹¹ Palladius, *Traité d'Agriculture*, René Martin, ed. (Paris: Les belles lettres, 2003). No manuscripts of Palladius survive from before the ninth century, these are from northeastern France. Leighton Durham Reynolds and Peter K. Marshall, *Texts and Transmission: A Survey of the Latin Classics* (Oxford: Clarendon Press, 1983) 287; Ludovicus Choulant, *Macer Floridus de viribus herbarum* (Leipzig: Voss, 1832). More generally, see Leighton Durham Reynolds, and Nigel Guy Wilson, *Scribes and Scholars, A Guide to the Transmission of Greek and Latin Literature* (Oxford: Clarendon Press, 1991).

Tropus magistri, first and last in the manuscript, are works by William de Montibus, a teacher at Paris and Chancellor of the school at Lincoln from 1190 until his death in 1213. The former is a catalog of sins and a treatise on the writing of sermons, the latter, a collection of moral texts.¹² The penultimate text, *Alexander de arte predicandi*, may be what is known as the *De artificioso modo predicandi* of Alexander of Ashby, prior of canons at Ashby, England, in the early thirteenth century.¹³ This text survives in only two known manuscripts, Cambridge University Library Ii.1.24 (fols.332-339) and Oxford, Magdalene College MS 168 (fols. 128v-130r).¹⁴ The relation to William de Montibus' *Summa* is clear: both circulated in England in the thirteenth century. William's, according to Hunt, was most well known in the region of East England and the Midlands; While the Priory of Ashby is also in this region, in modern Northamptonshire. Since William's texts did not circulate widely, nor for long after his death,¹⁵ it seems more than likely that the manuscript comes from the east of England or the midlands and that it dates to fairly early in the thirteenth century.

The two short titles given in the table of contents, *Glose super antidotarium*, a gloss on antidotes, and the *Lapidarium*, betray little but they may be identifiable. The *Glose super antidotarium* is probably a gloss on the antidotarium of Nicholas of Salerno, whose treatise on medicine and remedies, written in the mid-twelfth century, was a standard work on the subject. By the later twelfth century Mattheus Platearius wrote an analytical commentary on the *antidotarium*, shifting its emphasis from practical

¹² Joseph Goering, *William de Montibus (c. 1140-1213): The Schools and the Literature of Pastoral Care* (Toronto: Pontifical Institute of Mediaeval Studies, 1992) and Richard W. Hunt, "English Learning in the Late Twelfth Century," *Transactions of the Royal Historical Society*, Fourth Series, 19 (1936) 19-42.

¹³ Hunt, "English Learning" as ch. 5, note 12.

¹⁴ Thomas-Marie Charland, *Artes praedicandi, contribution à l'histoire de la rhétorique au moyen âge* (Paris: Vrin, 1936) 23ff.

¹⁵ Hunt, "English Learning," as ch. 5, note 12: 20-22.

instructions to philosophical explanation, explaining, for example, the reason compound medicines were beneficial and defining the word *antidote* in etymological terms.¹⁶ The *Lapidarium*, may be a transcription of Marbode of Rennes' famous eleventh-century poem on the magical and natural properties of stones, also known as *De lapidibus*.¹⁷ As Giliberto points out, texts like Marbode of Rennes' *Liber de lapidibus*, and Bede's *De duodecim lapidibus* upon which it drew, take as a primary concern the explanation of the stones described in the Apocalypse.¹⁸ Both of these texts explain the significance of natural elements and phenomena, be it the production of medicinal compounds or the symbolic value of stones. As Giliberto suggests, texts like the *Lapidarium* were used by clerics and archbishops in their pastoral duties, either in sermons in the explanation of themes and symbolism.¹⁹

The manuscript therefore, may be seen within the context of early thirteenth-century compilations of knowledge intended to aid the religious life. The treatises of Palladius and Macer, authorities of antiquity, serve the agricultural and medicinal needs of a religious community by explaining natural phenomena and the cultivation of the earth and its treasures. The commentary on antidotes, in turn, complements these with modern information on medicinal compounds, and the *Lapidarium*, we would surmise,

¹⁶ "Antidotum means 'given against,' from *anti*, which means 'against' and *dosis*, which means 'a giving.' Those compound medicines are called *antidota* which are compounded from selected medicines, chosen with great care, so that all medicines can really be called *antidota*." Mattheus Platearius, "The Rationalization of Pharmacy," trans. Michael McVaugh, in *A Source Book in Medieval Science*, ed. Edward Grant (Cambridge, Harvard University Press, 1974) 787; see also Paul Oskar Kristeller, "The School of Salerno: Its Development and its Contribution to the History of Learning," *Studies in Renaissance Thought and Letters* (Rome: Edizioni di storia e letteratura, 1956, rpt. 1984) 513.

¹⁷ See Concetta Giliberto, "Stone Lore in Miscellany Manuscripts; The Old English Lapidary," *Foundations of Learning: The Transfer of Encyclopaedic Knowledge in the Early Middle Ages*, ed. Rolf H. Bremmer Jr. and Kees Dekker, *Storehouses of Wholesome Learning I* (Dudley, MA: Peeters, 2007) 253-278; 258. See also Marbod of Rennes, *Lapidari: la magia delle pietre preziose*, ed. Bruno Basile (Rome: Carocci, 2006).

¹⁸ Giliberto, "Stone Lore in Miscellany Manuscripts;" as ch. 5, note 17: 272-275.

¹⁹ Giliberto, "Stone Lore in Miscellany Manuscripts;" as ch. 5, note 17: 272-275.

serves medicinal needs by describing properties of stones. It is also a reference for symbolism, and thus complements the texts on penitence and the writing of sermons.²⁰

The Cambridge manuscript shows that within a short period of time, *On Diverse Arts* served two different kinds of readers: on the one hand, it seems to have served as a practical guide, a repository for line drawings as well as a source of information on the care of objects and painting of images; once bound with Palladius, with Macer, with William de Montibus and the commentaries on stones and antidotes, it was incorporated into the larger field of knowledge needed by the religious community, so that we see art making and the care of objects as a part of the routine activities of the monastery.

Theophilus and Didactic Literature: Vitruvius, Agriculture, and Medicine

The Cambridge manuscript is not the only manuscript to contain texts of didactic import, and a look at other, later manuscripts and the texts which they contain may show how Theophilus could function in this domain. Perhaps following the tradition of the Wolfenbüttel manuscript, where *On Diverse Arts* was bound alongside Vitruvius, three other surviving manuscripts, all from the thirteenth century – the Cambridge, Harley, and Egerton manuscripts – are bound with similar works. These form a group of manuscripts that contain texts concerned with building, agriculture, medicine, and astronomy. The fifteenth-century manuscript in Paris draws on this tradition as well, including a copy of *On Diverse Arts* alongside *De architectura* and a mathematical treatise by the then contemporary Nicholas of Cusa. Theophilus' *On Diverse Arts* thus can be seen to be

²⁰ Aside from the two texts of William de Montibus, the texts are difficult to date or ascribe solely on the basis of their titles, but the full list is as follows: *Speculum penitentis*, of William de Montibus, and dating to the early twelfth century; a *Glose super antidotarium*, a *Lapidarium*, *Alexander de arte predicandi*, and *Tropus magistri W. de Montibus*.

working in a similar way, coming to stand for domain of knowledge that operates according to a common epistemology and notion of the natural order.

The binding of *On Diverse Arts* with Vitruvius demonstrates just one way in which Theophilus' treatise was considered akin to didactic literature. *On Diverse Arts* is organized by subset, with the chapters treating similar subjects grouped together.

Thomas Haye, in his study of didactic literature in the Middle Ages, has argued that this building-block structure is a defining feature of didactic literature: didactic texts are usually divided into books and chapters, each dealing with different aspects of its subject and building one upon another in hierarchies of complexity.²¹ Theophilus' text was read as more than practical instructions of recipes but as a didactic work appreciated for its progressive, narrative structure. To understand the way Theophilus was understood it is worth considering the evidence of the medieval reception of Vitruvius.²²

The overarching interest in Vitruvius throughout the Middle Ages was as a source for information about the natural world, an interest which Theophilus may have served as well. For the medieval reader of Vitruvius, the architect was a "world-builder," as well as designer of facades.²³ *De architectura* was a part of the Latin didactic tradition: it combined technical knowledge and moreso – theory – into a philosophical view of the world. Vitruvius' "world knowledge," his architect, a "world-" and city-builder, provided an ideal city, not just in formal terms, but in medical, agricultural, and astrological terms.

²¹ Thomas Haye, *Das Lateinische Lehrgedicht*, as ch. 4, note 98: 169-170.

²² Comparisons between *On Diverse Arts* and Vitruvius' *De architectura* In her musicological study of the development of the organ in the middle ages, Helen Bittermann finds that "the mechanism of the organ described by Vitruvius is practically identical with that furnished by Theophilus." Helen Robbins Bittermann, "The Organ in the Early Middle Ages," *Speculum* 4, 4 (Oct., 1929) 390-410, 393. Bittermann cites Vitruvius *De architectura* ix, 1, but I have not been able to find it there. These striking similarities between the two texts raise the question of whether, and the extent to which, Theophilus was drawing on Vitruvius' text, especially given the tendency of twelfth-century writers to draw directly on antique sources. Such a study however, is beyond the scope of this dissertation

²³ Schuler, *Vitruv im Mittelalter*, as ch. 2, note 12: 4-5.

Architecture was closely tied to the environment in which it stands; the theories that guided architecture were also those that guided the world around it. The properties according to which buildings and cities were to be built were interrelated, each dependent upon each other within a balanced cosmological system of humors, elements and planets.²⁴

Martianus Capella in the early fifth century drew on Vitruvius as an authority on the balance of the planets and the harmony of the spheres and referred to his theories of medicine for the link between disease, the circulation of air, and the location of cities.²⁵ In the ninth century, Hucbald of St. Amand linked Vitruvius' eight primary and four secondary winds to the Pythagorean proportions of music. Hucbald analyzed each musical interval, and then proceeded to a new section entitled *Sequitur Praemissus Expositor*, in which he defined the relations of the intervals to each other and then related each one to the set of tones in an octave. Perhaps surprisingly, he opened this section with a reference to Vitruvius.²⁶

As Vitruvius said in the book *On Architecture*, according to natural sciences there are not more than eight winds; the principals are four, and four are subjected to these. Four truly, which are added so that there are twelve, just as there are four semi-tones to eight tones. For in the waves of the sea and of the rivers always the first wave sounds more than the seven following.

The ninth truly is similar to the octave. Similarly you can discriminate the octave in thunder, by which Pythagoras the philosopher invented these eight consonances of tones, recited according to the harmony of heaven at the mountain of Atlantis, which is close to heaven, of whose proportions the form of the five zones of heaven he completed, of

²⁴ Schuler, *Vitruv im Mittelalter*, as ch. 2, note 12: 4-5.

²⁵ Schuler, *Vitruv im Mittelalter*, as ch. 2, note 12: 4-5.

²⁶ Hucbald of St-Amand, *De harmonica institutione*, PL 132, 945-946.

which that [zone] of yours, the world, is governed by proper mixture.

Indeed all the concords of music either to one II have twofold, or III in tri-fold, or IIII in four-fold, or V, in one and a half times, or VII in four-thirds, Finally, as was said above, out of five tones and two semitones an eighth whole octave is completed, which is the first tone; so that VI, XII to which all sounds of music are brought home. Whatever even the number to twelve can be divided, thus as to that same twelfth or through three and four, or four and three is divided, is music, constant in the above said proportions. For Pythagoras adjusted double in VI, one and a half as much in VIII, four thirds as much in IIII, to XII. Whence out of five simple tones, it is, with a fifth, a fourth, an octave...²⁷

For Hucbald, Vitruvius' set of eight and four winds provides a harmonious system of operation that is akin to the system of sounds; furthermore, these could be connected to the sounds of waves, the sounds of thunder, and the zones of heaven, "of which that [zone] of yours, the world, is governed by proper mixture" (*quarum temperie mundus iste moderatur*). By linking Vitruvius' winds to Pythagorean proportions, Hucbald drew attention to the system by which the winds operate. He was interested not so much in the nature of the winds: that they might be stronger, or colder, or occur at a particular season,

²⁷ Hucbald of St-Amand, *De harmonica institutione: Ut Vitruvius dixit in libro de Architectura, secundum physicos non plus sunt, quam octo venti: principales quatuor, et subjecti quatuor. Quatuor vero, qui adduntur ut sint duodecim, sic sunt ut quatuor semitonia ad octo tonos. Nam in undis maris et fluminum semper magis sonat prima unda, quam septem sequentes. Nona vero octavae similis est. Similiter in tonitruis octo discrimina, a quibus Pythagoras philosophus has octo tonorum consonantias praefatas ad harmoniam coeli in Atlante monte, qui est proximus coelo, adinvenit, cujus proportiones instar quinque Zonarum coeli perfecit, quarum temperie mundus iste moderatur. Omnis enim musicae consonantia aut ad unum II. habet in duplici, aut III. in triplici, aut IIII. in quadruplici, aut V. in sesquialtera, aut VII. in sesquitercia. Denique, ut supra dictum est, ex V. tonis et duobus semitoniis octavum perficitur diapason, qui est primus tonus: ut VI. XII. ad quem omnis musicae consonantia refertur. Quicumque enim numerus ad XII. patiri potest, ita ut ad ipsum duodenarium sive per ter et quater, sive quater et ter dividatur, musicus est, constans in supradictis proportionibus. Nam Pythagoras aptavit duplam in VI. sesquialteram in VIII. sesquiterciam in IIII. ad XII. Unde ex quinque tonorum simplicium, id est, diapente, diatessaron, diapason; compositorum. PL 132, 945-946.*

but that their number corresponds to the proportions of tones and harmonies in Pythagoras' musical system, and thus to the order that governs the world.

In the late tenth century, Richard of Saint-Remi and Gerbert of Reims were using Vitruvius alongside Boethius as an authority for the classification of philosophy and for the divisions of theory and practice.²⁸ In the early twelfth century, William of Malmesbury used Vitruvius to explain how an organ works by pushing air through the pipes at various measurements.²⁹ Twelfth-century manuscripts of Vitruvius are evidence of this connection between Vitruvius, Boethius, and agricultural texts. A twelfth-century manuscript of Vitruvius, which contains nearly the entire text of *De architectura*, is bound just following an earlier copy of Boethius' *De arithmetica*.³⁰ Likewise, a manuscript in London, also containing the entire text of Vitruvius and dating to the mid-twelfth century begins with Palladius, *De agricultura*; followed by Vitruvius, then Vegetius' *De re militari*.³¹

Hugh of St. Victor provides evidence for a medieval understanding of Vitruvius, as he classified Palladius, Vitruvius, and Virgil's *Georgics* all within the realm of mechanical science as sources of world knowledge.³²

²⁸ Schuler, *Vitruv im Mittelalter*, as ch. 2, note 12: 50.

²⁹ William of Malmesbury, *Gesta regum Anglorum: Clamores emittunt. Hoc fuisse videtur organum vaporis applicatione sonos emittens. Quaedam forsan erat modificatio revolventis aeolipylae quod erat instrumentum de quo Vitruvius loquitur. Aeolipyla vulgo constat sphaerali metalli globo, cum tubulo seu parvo foramine per quod vaporis jactus impelli potest.* PL 179, 1140d-1141d.

³⁰ Tübingen, University Library, MS, on deposit from Berlin Staatsbibliothek, where it was cod. lat. fol. 601. Fols. 68-140 contain Vitruvius, following upon Boethius, *De arithmetica*, fols. 1-67. The Boethius text dates from between the ninth and eleventh centuries. The manuscript is English or Northern French, and was once in the collections of Sir Simeon Stuart and William Morris. See Krinsky, "Seventy-Eight Vitruvius Manuscripts," as ch. 2, note 7: 48.

³¹ London, British Museum Add. 38818. Fols. 1-48v contain Palladius, *De Agricultura*; fols. 49-109 contain Vitruvius, *De architectura*; fols. 109-135v contain Vegetius, *De re militari*. The following 127 folios contain later theological texts. According to the catalogue, the manuscript is dated to the twelfth or thirteenth century, while a note on the guard leaf dates it to the mid-twelfth century. See Krinsky, "Seventy-Eight Vitruvius Manuscripts," as ch. 2, note 7: 49.

³² See Hugh of St. Victor, *Didascalicon*, Book 3, ch. 2; Taylor, as ch. 2, note 16: 84.

Mechanical Science has had many authors. Hesiod Ascraeus was the first among the Greeks who applied himself to describing farming, and ‘after him Democritus. A great Carthaginian likewise wrote a study of agriculture in twenty-eight volumes. Among the Romans, Cato is first with his *Concerning agriculture*, which Marcus Terentius subsequently elaborated. Vergil too wrote his *Georgics*; then Cornelius and Julius Atticus Aemilian, or Columella, the famous orator who put together an entire corpus on this branch of knowledge.’ Then there are Vitruvius, *On architecture*, and Palladius, *On agriculture*.³³

For Hugh, Vitruvius is an author of the mechanical arts, and *De architectura* is a part of didactic literature, following in the tradition of Varro and Virgil. In the greater system of Hugh’s pedagogy, Vitruvius was a source of practical information relevant to his larger spiritual, pedagogical framework. Linked to didactic literature on agriculture and to theoretical texts on music, and as evident in the interests of Hucbald, Martianus Capella, William of Malmesbury and Hugh of St. Victor, Vitruvius’ text seems to have been valued for his interest in proportions, principles and the relation of man-made and cosmic systems.³⁴ Both theoretical and practical, *De architectura* was used as a source which explained practical skills of building in relation to the natural order.

Since *On Diverse Arts* was more than once bound with Vitruvius, we might begin see it as operating in a similar way, concerned with how the creation of a man made

³³ Hugh of St. Victor, *Didascalicon*, Book III, ch. 2, “Concerning the Authors of the Arts,” Taylor, as ch. 2, note 16, 84. See also the latin: *Eruditio didascalica*, Cap. II, “De auctoribus artium”: *Mechanica diversos habuit auctores. Hesiodus Ascraeus primus apud Graecos in describendis rebus rusticis studuit. Deinde Democritus; Mago quoque Carthaginensis XXVII, voluminibus studium agriculturae conscripsit; apud Latinos primus Cato opus De agricultura instituit, quod deinde Marcus Terentius Varro expolivit. Virgilius quoque Georgica fecit. Deinde Cornelius et Julius Atticus Aemilianus, sive Columella insignis orator, qui totum corpus disciplinae hujus complexus est. Palladius quoque De agricultura scripsit; Vitruvius autem De architectura*. PL 176, 766c-766d.

³⁴ Much twelfth-century writing concerns itself with these relations, such the *Liber Floridus* of Lambert of St. Omer, with his explanations of living things set into the orders of the elements, of the winds, of time. This will be discussed in more depth below. For a study of didactic literature in the Middle Ages, see Thomas Haye, *Das Lateinische Lehrgedicht*, as ch. 4, note 98; Reynolds and Wilson, *Scribes and Scholars*, as ch. 5, note 11: 82.

object fits into the larger operations of the universe, just as a man-made building might, but on a smaller scale. Like Vitruvius, Theophilus described the practical skills of art making in terms of the natural and spiritual order of the world and history.

The second group of texts with which *On Diverse Arts* was often bound is comprised of agricultural texts. Relevant manuscripts survive from the late twelfth and early thirteenth century to the fifteenth century. The thirteenth-century manuscript with which the chapter began, Cambridge E e 6. 39, opens with, Palladius' *Opus agriculture*, a text following in the tradition of Virgil's *Georgics*.³⁵ Palladius gives instructions for managing an estate, and his instructions emphasize the quality of the soil and of the air. The close relation between Palladius' work and Virgil's poem was well known in the Middle Ages. The margins of an eleventh-century manuscript of Palladius now at Corpus Christi College, Cambridge, for example are filled with references to the *Georgics*,³⁶ creating another link in the circle of texts comprised by Theophilus, Vitruvius, Virgil, Palladius, and also Varro.³⁷

Two late twelfth or early thirteenth-century manuscripts, one a copy of the other, both now in Paris, contain excerpts from Theophilus' book on metalwork and are bound

³⁵ Cambridge University Library MS E e 6 39.

³⁶ Cambridge, Corpus Christi MS 297. This manuscript is described in René Martin's introduction to Palladius, *Traité d'Agriculture*, as ch. 5, note 11.

³⁷ See British Library Arundel 295 fol. 265, with diagram. Although now considered to have been a pseudonym for Odo of Meung, on the Loire, who lived in the first half of the eleventh century, the name Macer was often connected to Publius Aemilius Macer, a Roman poet of the first century BC mentioned by Ovid in *Tristia* as having written a poem on plants. It is unclear, therefore, but potentially very interesting, whether the name Macer was known to be a pseudonym in the Middle Ages, referring to the Roman poet, or if the poem was actually identified as having been written by the ancient Roman. The source in Ovid is as follows: *Saepe suas volucras legit mihi grandior aevo, / Quaeque nocet serpens, quae iuvat herba Macer.* Ovid, *Tristia*, 4.10.44. Quoted in Bos and Menschun, "Macer Floridus," as ch. 5, note 2: 17. While this article contains excerpts of Macer translated into English, the primary edition of Macer is that edited by Choulant, *Macer Floridus*, as ch. 5, note 11. See also Peter Murray Jones, *Medieval Medicine in Illuminated Manuscripts*, 2nd ed. (originally published as *Medieval Medical Miniatures*, 1984, rpt. London: British Library, 1998) 46, fig. 37.

with Palladius' *Opus agriculture*.³⁸ In the fifteenth century, Varro's *De re rustica*, an ancient didactic text often considered to be a predecessor to Virgil's *Georgics*,³⁹ was added to both volumes.⁴⁰ That Theophilus was viewed as a part of this tradition, and even helped to shape it, is further evidenced by the fact that the Wolfenbüttel manuscript, which is bound with Vitruvius, was owned in the sixteenth century by Georgius Agricola, the author of *De Re Metallica*. In the introduction of this book Agricola explicitly connected himself, and his own work on metals and minerals, to the tradition of Latin didactic literature, likening his work to the *De re rustica*, a didactic agricultural text by the first century BC author Callimachus.⁴¹ The link between agricultural texts and Theophilus' text encourages a reading of Theophilus' treatise on art as a piece of literature that endows practical skills with philosophical meaning; acting as both metaphors and microcosms, the numerical harmonies of Vitruvius, or the seasonal cycles of Virgil rely upon, and are evidence of, a connection between man and the abstract universal order.

Medical texts are the third group of writings with which *On Diverse Arts* is often bound. In early partial copies, including the Cambridge manuscript, and the Leipzig manuscript Theophilus' text appears not only alongside the ancient texts of Palladius and Varro, but with contemporary medical sources such as Macer.⁴² Like the ancient didactic

³⁸ Paris BnF MS lat. 11212, and MS lat. 6830 F.

³⁹ Paris, Bibliothèque Nationale MS lat. 11212 dates to the late- twelfth or thirteenth century, and contains a fifteenth-century addition; Paris, Bibliothèque Nationale MS lat. 6830 F, also dates to the late-twelfth or thirteenth century, and also contains a fifteenth-century addition. For the literary sources and tradition of the *Georgics* see Richard F. Thomas' introduction to the Cambridge University Press edition: Virgil, *Georgics*, ed. Richard F. Thomas, Cambridge Greek and Latin Series (Cambridge: Cambridge University Press, 1988).

⁴⁰ Paris, Bibliothèque Nationale MS lat. 11212 and Paris, Bibliothèque Nationale MS lat. 6830 F.

⁴¹ Agricola, introduction to *De re metallica*, as ch. 1, note 42.

⁴² Leipzig,, University Library MS 1157 binds Theophilus alongside Aristotle, Galen, and Martianus Capella's text on minerals as well as Jacobus Alchindus; the *De mineralibus* of Albertus Magnus; and

texts, Macer's work on herbs is written in hexameters and divided into chapters, each of which describes the properties of one plant. Primarily concerned with medicine, the work describes the characteristics of each plant and how it might be used. Allium, for example,

is called (s)cordeon in (the Greek) language. The expert physicians say that it is hot and dry in the fourth degree. Applied in a dressing or rubbed it cures the bite of a scorpion. Harmful worms flee from the smell of pounded garlic.... When it is boiled with mead and mixed with vinegar and drunk it kills worms and expels them from the stomach.... Diocles prescribes it with centaureum for those suffering from dropsy because it dries the watery humors; he also prescribes it for those who suffer from kidney stones.⁴³

The text catalogues the natural elements and describes their properties and effects, drawing consciously on ancient sources. Like Theophilus and Heraclius its author, "Macer," who is likely Odo of Meung wrote under a pseudonym; but this text, like most of the other texts of the didactic genre, lacks the narrative thread that distinguishes Theophilus' work.⁴⁴

Egidius. Other manuscripts include Munich, Bayerische Staatsbibliothek Clm 444, a fourteenth-century manuscript that binds excerpts from Theophilus with medical tracts and an herbal; and Montpellier, École de Médecine MS lat 277 which also binds Theophilus with a set of herbals. See Appendix.

⁴³ Macer, *De viribus herbarum*, lines 161-178; quoted and translated in Bos and Mensching, "Macer Floridus," as ch. 5, note 2: 43.

⁴⁴ These connections between Theophilus, Heraclius, and Macer, are unexplored, and potentially very rich, as each appear to be writing in the ancient tradition, and all take pseudonyms, but the exact relation between these texts and their relationship to the ancient texts upon which they draw is unclear. They are part of a trend of literature in the tenth, eleventh and twelfth centuries to write a pseudo-didactic work in the ancient style, under a pseudonym. Although none pretend to be such an ancient author, all assume their authority through the name and the character of the author with which they are associated. These links, between medical and technical recipes and the authority of the writer has yet to be explored. Other authors of medical texts and didactic poetry would write under a pseudonym as well, as in the case of Trotula, who allegedly, taught at the medical school of Salerno in the eleventh or twelfth century, and the late-eleventh-century *Messiad* of Eupolemius, which using Prudentius, opens with a "Virgilian declaration of the poet's theme." See Sean Penn, "Latin Verse," *German Literature of the Early Middle Ages*, ed. Brian Murdoch (Suffolk, UK: Camden, 2004) 87-118, here 114. The relation between prose and verse poses a further problem: it is unclear to what extent these two types of writing were distinguished. In 1050 Orulf of Speyer writes of the transformation from prose to verse as "*idem idem eidem et eodem*." According to Curtius, verse was simply another form of rhetoric, interchangeable with prose. He also writes that there were, in fact, double versions of texts. It is also significant, however, that this occurs within the strictly

Medical texts like Macer's do bear some relation to the "recipe books" associated with *On Diverse Arts*. As Brian Murdoch has shown, late medieval charms and recipes follow patterns similar to recipes for medicine and recipes for cookery, as is evident in the so-called Innsbruck pharmacopoeia.⁴⁵ Medical, cookery, and technical recipes even overlap: the *Mappae Clavicula*, for example, includes recipes for making candies of sesame or sugar; it makes little differentiation between cooking and painting recipes.⁴⁶ Practical concerns of the middle ages made the relationship between medical and technical recipes particularly close: many painting recipes call for plants in the manufacture of pigments.

Medical recipes, cooking recipes, and painting recipes are concerned with mixing elements for a desired effect. Jerry Stannard, in his many studies of medieval medicine and herbalism, has found that medical recipes typically consisted of the following elements: they would be categorized, titled, or introduced according to their purpose or the ailment they were meant to cure, they would provide a list of ingredients, and they would describe the application of those ingredients.⁴⁷ They would not, Stannard writes, always specify the tools needed, or the details of the procedure, as these were assumed to

regulated stylistic system of the Middle Ages, where poetry, as "rhythmic prose," was further divided into different types. See Ernst Robert Curtius, *European Literature and the Latin Middle Ages*, trans. William Trask (Princeton, NJ: Princeton University Press, 1973). 148-153. By the end of the twelfth century, the practice of writing in the style of ancient didactic literature continues, but the pseudonym disappears, as is evident in the writings of Alexander of Neckham, who wrote, circa 1280, *de naturis rerum*, a manual of science. See Thomas Wright, ed., *Alexandri Neckham de naturis rerum libri duo, rerum Britannicarum medii aevi scriptores* 34 (London: Longman 1863).

⁴⁵ Brian Murdoch, "Charms, Recipes, and Prayers," in Murdoch, ed., *German Literature of the Early Middle Ages*, as ch. 5, note 44: 52-77.

⁴⁶ *Mappae clavicula*, ch. 285-287; in Smith and Hawthorne, as ch. 2, note 20: 71.

⁴⁷ Murdoch carefully distinguishes this purpose, what he calls "effecting" a cure, from those of charms or prayers, which, he states, respectively demand or request a cure. Murdoch, "Charms, Recipes, and Prayers," as ch. 5, notes 44 and 45.

be understood.⁴⁸ The entry for *Allium* in Macer, quoted above, follows this pattern, describing the plant and what kind of ailments it can be used to treat.

The recipe books with which *On Diverse Arts* is associated follow the same patterns of instruction as the medical recipes. In the *Mappae Clavicula* and Heraclius' *De coloribus et artibus romanorum*, the recipes usually begin, or are titled with, their purpose, as in a recipe for "Making of Indigo Pigment."⁴⁹ The *Mappae Clavicula* reads: "Collect the juice of dwarf elderberries and dry it thoroughly in the sun. From what remains make pastilles with a little vinegar and wine, then use it."⁵⁰ This recipe contains a description of the ingredients needed, and a rough description of the procedure by which they are to be mixed. Theophilus too introduces instructions by their purpose, and describes the ingredients:

Flake-white and red lead

To prepare flake-white, get some sheets of lead beaten out thin, place them, dry, in a hollow piece of wood, like the copper above, and pour in some warm vinegar or urine to cover them. Then, after a month, take off the cover and remove what white there is, and again replace as at first. When you have sufficient and wish to make red lead with it, grind this flake-white on stone without water, then put it in two or three new pots and place it over a burning fire. You have a slender curved iron rod, fitted at one end in a wooden handle and board at the top, and with this you can stir and mix this flake-white from time to time. You do this for a long time until the red lead becomes completely red.⁵¹

Theophilus' instructions, like the medical and painting recipes, begin with the purpose –the flake white, or in the *Mappae clavicula*, the indigo pigment – and proceed to describe the ingredients required. Like the medical texts, and like the *Mappae clavicula*

⁴⁸ Jerry Stannard, *Herbs and Herbalism in the Middle Ages and Renaissance*, ed. Katherine E. Stannard and Richard Kay (Brookfield, VT: Ashgate Variorum, 1999).

⁴⁹ *Mappae Clavicula*, ch. 97; Smith and Hawthorne, as ch. 2, note 20: 41.

⁵⁰ *Mappae Clavicula*, ch. 97; Smith and Hawthorne, as ch. 2, note 20: 41.

⁵¹ Theophilus, Book I, ch. xxxvii, Dodwell, *DDA*, as ch. 1 note 5: 33.

and the book of Heraclius, Theophilus' instructions describe mixtures, whether of pigments, colored glass, even of composite metals.

Medical recipes focus on mixtures and properties of materials, even metals. Hildegard of Bingen's *Physica*, a twelfth-century book often described as "on health and healing," includes treatments on metals and stones, describing how to use gold, silver, or pearls to aid various treatments.⁵² Here, metals are described according to their elemental properties and are used in medical recipes. Hildegard describes gold as "hot. Its nature is somewhat like that of the sun, and it is almost like the element air." If eaten as she describes, and "If the stomach is cold and full of mucus [i.e. cold and wet], it will warm it and purge it, without danger to the person."⁵³ Silver, on the other hand, is cold. The strong natural cold of silver diminishes hot, cold, and moist humors by its sharpness."⁵⁴ In medicine, the elements were used to bring the body into balance.

The system of humors and elements guiding medical texts like Hildegard's is part of medieval astrology, another group of texts with which copies of *On Diverse Arts* was bound. A thirteenth-century manuscript copy of Theophilus' text, now at the British Museum, Egerton 840a, was once bound with a text on astrology and the use of the astrolabe.⁵⁵ The two texts were separated in the nineteenth century,⁵⁶ perhaps under the assumption that they belonged to two very different fields of knowledge. When Theophilus is seen as a part of the realm of didactic literature, however, the presence of the astrological text is not surprising.

⁵² Hildegard, *Physica*, especially Book 9 as ch. 2, note 14.

⁵³ Hildegard, *Physica*, Book 9, ch. I; as ch. 2, note 14: 238.

⁵⁴ Hildegard, *Physica*, book 9, ch. 11; as ch. 2, note 14: 238.

⁵⁵ British Library Egerton 840A.

⁵⁶ Dodwell, *DDA*, as ch. 1 note 5: lxxvii.

Like astrological and medical texts, *On Diverse Arts* treats properties of materials in the natural world. Contemporary tetradic diagrams like the *Liber Floridus* of Lambert of St. Omer of about 1120, is a visual representation of the relationships of these areas of knowledge. This diagram shows man (*homo*) at the center, linked by the four humors to four circles, each binding a season with an element, so that the sanguine (*sanguis*) humor is connected to spring (*ver*) and the element air (*aer*), melancholy (*melancholia*) with autumn (*autumnus*) and earth (*terra*). Integrated into the diagram through seasons, stars, elements and humors, agriculture, astrology and medicine are shown to be integrated parts of medieval philosophy, for they all deal with the balance of the elements.⁵⁷ Man's health depends on a balance of four humors; these in turn are connected to astrology and, by extension, agriculture, the elements – fire, air, water, and earth – and in the seasons.⁵⁸

From the Earth to the Artist, Knowing the Nature of Material

Theophilus' instructions say a good deal about the nature of materials and how to manipulate them. Like the tetradic diagram, *On Diverse Arts* orders materials according to their uses and properties and frames his description according to a larger religious

⁵⁷ According to Faith Wallis, medical texts were often placed within calendar manuscripts; dietary calendars were considered a part of computus manuscripts because they discussed the variations of the humors of the body according to the seasons. Faith Wallis, "Medicine in Medieval Calendar Manuscripts," *Manuscript Sources of Medieval Medicine, A Book of Essays*, ed. Margaret Schleissner (New York: Garland, 1995): 105-43. Here, 110-113, 122-125. Likewise, Varro has been seen as a precursor and source for medieval systems of weights and measures, so that he was interpreted as having a sense of divine creation and order. Oswald A. W. Dilke, "Varro and the Origins of Centuration," *Atti del Congresso di Studi Varroniani* (Rieti: 1976) II: 353-358; and Hugh McCague, "Le don des métiers," as ch. 2, note 66: 58. Of the integration of all of these elements, Wallis writes that such diagrams present "a vision in which time, the cosmos, and man are harmoniously connected by the shared structure of the four elements and their qualities. In medieval didactic diagrams, these interconnections of shared pairs of qualities knit the elements, seasons, and humors into a circle." Wallis, "Medicine in Medieval Calendar Manuscripts," 125.

⁵⁸ For discussions of these diagrams in relation to man, time and aging, particularly how they differ according to usage, or in translation from texts to images and vice versa, see Elizabeth Sears, *The Ages of Man: Medieval Interpretations of the Life Cycle* (Princeton: Princeton University Press, 1986). For a study of the schematics of these diagrams and similarities in basic structure across them, see Madeline Caviness, "Images of Divine Order and the Third Mode of Seeing," *Gesta* 22 / 2 (1983) 99-120.

agenda. In his chapter on stone polishing, for example, he writes: “If very pure crystal, which has been cut to a round shape and polished and moistened with water or spittle, is held up to a bright sun, and a pile of what is called tinder is placed underneath so that the rays play on it, then it draws fire with the greatest rapidity.”⁵⁹ Following as it does upon the description of the making of a knop, which, Theophilus is sure to say, “can be used on bishops’ crosiers or on candlesticks,”⁶⁰ we may read the comment on how to make the crystal look the most radiant and pure in the context of its use on a bishop’s crosier. In this way the comment on purity is not an aside, but rather an extension of the discussion of the knop itself. It is a measure of quality control: Theophilus describes how to make the knop look most radiant and pure; in so doing, he is also explaining how both artist and reader might recognize it as being of highest quality.

It is in the book on metalwork that accounts of the source and natures of material really take center stage. In this third book, for example, four chapters are dedicated to describing four different kinds of gold, which form an introduction to the discussion of making a gold chalice. The text begins with the “Gold of the Land of Havilah.” There are “many kinds of gold,” Theophilus writes, but this gold is the best. This is a paradisaical gold that is referred to in the book of Genesis and is, according to Theophilus, the best of many kinds of gold.⁶¹ The next three chapters deal with gold of varying degrees of quality coming from different regions of the world. The first of the three is “Arabian Gold,” which, according to Theophilus, is “very precious,” and “is frequently found used

⁵⁹ Theophilus, Book III, ch. xcvi; Dodwell, *DDA*, as ch. 1 note 5: 170.

⁶⁰ Theophilus, Book III, ch. xcvi; Dodwell, *DDA*, as ch. 1 note 5: 169.

⁶¹ Theophilus, Book III, ch. xlvi, “Gold of the Land of Havilah”: *Auri multa sunt genera, ex quibus praecipuum nascitur in terra Evilat, quam Phison fluvius circuit secundum Genesim...*” Dodwell, *DDA*, as ch. 1 note 5: 96.

in antique vases.”⁶² This gold, he warns, is sometimes counterfeited by the addition of copper, which deceives “many unwary people. This can be guarded against” by testing the gold in the fire.⁶³ The second is “Spanish Gold,” which is “prepared from red copper, powder of basilisk and human blood and vinegar.” Theophilus then describes the method by which “the heathen, who are said to be skilled in this art,” prepare the compound of basilisk, which, combined with vinegar, creates a compound that “eats through the copper, which, thereupon, takes on the weight and colour of gold. This gold is suitable for all work.”⁶⁴ The last chapter on the sources of gold is “Sand Gold.” This is gold from the banks of the Rhine, and it is characterized as a very fine gold: *aurum subtilissimum*.⁶⁵ Each of these characterizations of gold specify three things: the source of the gold; the quality of the gold, and how the gold can be obtained.

Theophilus’ interest in material spans both theoretical knowledge and practical knowledge. The degrees of differences in gold, between paradisial gold, Spanish gold, and Rhine gold, were relevant as a part of the greater system of understanding about the nature of the material, even if one were unlikely to obtain paradisial gold. Practical information, therefore, about obtaining Rhine gold, or Arabian gold, or being able to

⁶² Theophilus, Book III, ch. xlvi, “Arabian Gold,”: *Est et aurum Arabicum pretiosissimum et eximii ruboris cuius usus in antiquissimis vasis frequenter reperitur...*” Dodwell, 96. Notably, there is here a very interesting variation in the text: G says *utuntur* (*utior*, use) while the others say *mentiuntur* (*mentior*, deceive).

⁶³ Theophilus, Book III, ch. xlvi, “Arabian Gold,” continues: “*cuius speciem moderni operarii mentiuntur, dum pallido auro quintam partem rubei cupri addunt, et multos incautos decipiunt. Wuod hoc modo caveri potest, ut mittatur in ignem, et si purum aurum est, non amittit fulgorem; si vero mixtum, omnino mutat colorem.*” Dodwell, *DDA*, as ch. 1 note 5: 96.

⁶⁴ Theophilus, Book III, ch. xlvi, “Spanish Gold”: *Est etiam aurum, quod dicitur Hyspanicum, quod conficitur ex rubeo cupro et pulvere basilisci et sanguine humano atque aceto. Gentiles enim, quorum peritia in hac arte probabilis est, creant sibi basiliscos hoc modo. ...sicque tamdiu faciunt, donec ipsa confectio cuprum transmordeat, et inde pondus et colorem auri suscipiat. Hoc aurum omnibus operibus aptum est.*” Dodwell, *DDA*, as ch. 1 note 5: 96-97.

⁶⁵ Theophilus, Book III, ch. xlix: “*Est aliud aurum quod dicitur arenarium, quod reperitur in litoribus Reni hoc modo. ...Deinde superfunditur aqua frequenter et diligenter, effluentibusque arenis remanet aurum subbtillissimum, quod singulariter in vasculo reponitur.*” Dodwell, *DDA*, as ch. 1 note 5: 98.

recognize counterfeit gold, are set directly in relation to paradisaical gold of the land of Havilah. It is notable, however, that while the text describes gold of Havilah, which, it has been suggested, is modern-day Yemen, the text does not mention the biblical Ophir, the source of gold for Solomon's temple.⁶⁶

Theophilus' treatment of the other metals is less deep, though he does describe how copper and iron are to be found and mined: "Copper is formed in the earth. When a vein of it is found, it is obtained with the utmost labour of digging and breaking. It is an ore of a green colour, very hard, and in its natural state mixed with lead."⁶⁷ The description of iron is very similar: "Iron is formed in the earth as an ore. It is dug up and broken up in the same way as copper above, and melted down into pigs, then it is smelted in the iron foundry and hammered so that it becomes fit for any work. Steel is so called from Mount Calibs, where, so far as we know, it is used more than anywhere else. It is prepared in a similar way [to iron] and so made fit for work."⁶⁸ These chapters are surprisingly detailed, describing processes of mining that seem far removed from the fine goldsmith work that one might expect to occur in a monastery. As we saw in chapter three, however, the Benedictine abbeys of the region were major players in the metals trade, owning mines themselves; Theophilus' interest emphasis on the material, then, must also be seen in light of this larger context.

Theophilus' interest in the sources of metal is rooted in the implications of the *genus* of a material for its subsequent nature, *natura*, and utility, *utilitas*. It is a concern

⁶⁶ 3 Kings 9,10; 1 Chronicles 29; 2 Chronicles 8, 9

⁶⁷ Chapter lxiii, "Copper": "*Cuprum in terra nascitur; cuius vena cum invenitur, summo labore fodiendo et frangendo acquiritur. Est enim lapis colore viridis ac durissimus et plumbo naturaliter mixtus.*" Dodwell, *DDA*, as ch. 1 note 5: 120-121.

⁶⁸ Theophilus, Book III, ch. xci, "Iron": "*Ferrum nascitur in terra in modum lapidum, quod effosum eodem modo quo cuprum superius frangitur et in massas confunditur, deinde in furnace ferrarii liquatur et precutitur, ut aptam fiat unicuique operi. Calibs dicitur a monte Calibe, in quo eius usus plurimus invenitur; qui simili modo preparatur, ut operi aptus fiat.*" Dodwell, *DDA*, as ch. 1 note 5: 162.

for the natural world, with an intellectual and cosmic approach to materials that draws on Pliny and Isidore of Seville, casting material qualities into a greater understanding of the cosmos. Such a cosmic perspective drives Theophilus sharp distinction between those materials that are pure and those that are composites. Having described the nature of bronze, for example, Theophilus writes that “by adding a fifth part tin to the copper founded in this way, a metal is made from which bells are cast.” This property of material is what Theophilus often refers to as *natura*, an understanding of genus that determines the manipulation of material and the making of objects.

The recipes in the *Mappae clavicula*, in contrast, do not explain such *natura*, or even procedures, so much as give precise proportional amounts, as in the recipe for green mosaic: “Take five pounds of a lump of clean glass and two ounces of lead-free copper filings, and put them in a new earthenware pot. Put fire underneath, and in the lower part of a glassworker’s furnace cook them down for seven days, and after this take it out and break it up into small pieces and melt it again. It will be green colored.”⁶⁹ Similar are the recipes for making red and purple glass: “Making [glass of] a reddish color: Put two ounces of white lead to a pound of glass and cook for six days,” and likewise: “Making a purple color [on glass] without fire: Color thin glass pieces, mix and coat them with dragon’s blood, and in this way a reddish color will result.”⁷⁰

Unlike the compiler of the *Mappae clavicula*, Theophilus emphasizes technique and *natura* to the extent that his concern for the nature of material extends even to the contingencies that might occur in a process. The delicate process of heating glass requires just such a warning:

⁶⁹ *Mappae Clavicula*, ch. 224; Smith and Hawthorne, as ch. 2, note 20: 62.

⁷⁰ *Mappae Clavicula*, ch. 158, 159; Smith and Hawthorne, as ch. 2, note 20: 50.

Purple Glass: If you perceive that the contents of any container happen to change to a tawny colour, which is like flesh, let this glass serve for your flesh colour. Take as much of it as you want. Heat the rest for two hours, namely from the first to the third hour, and you will obtain a light purple. Heat again from the third to the sixth hour and it will be a perfect reddish purple.⁷¹

The concern for contingent events is evidence of a larger interest in the nature of the material: his student should understand material properties well enough to be able to adjust the process as necessary, so that the substance is best used. For Theophilus the utility of the material is dependent on the kinds of manipulations that can be performed on it. The genus of a material is valuable information because it defines the nature of the material, and thus how it can be manipulated, and for what techniques, and ultimately which objects, it can be employed.

Like Vitruvius' *On Architecture*, Theophilus' *On Diverse Arts* could be seen as a set of instructions for understanding and manipulating the natural world. But it also shared features with the *Mappae clavicula* or Heraclius, as it set out procedures, described materials. Unlike the latter it has a narrative structure that put it squarely in the tradition of Latin didactic literature. By paying heed to the logic of juxtapositions of texts in manuscripts containing Theophilus' text, we come to see how *On Diverse Arts* was seen to fit within a larger monastic context of learning and fields of knowledge.

Books for Religious Purpose: Theophilus and the Religious Handbook

The ecclesiastical texts of the Cambridge manuscript point to yet another valued aspect of *On Diverse Arts*. The binding of Theophilus alongside works by William de Montibus and, most probably, Alexander of Ashby, brings to the fore another perception of the text

⁷¹ Theophilus, Book II, ch. viii; Dodwell, *DDA*, as ch. 1 note 5: 42.

and suggests that the knowledge of art was a field of learning deemed useful by clerics and ecclesiastics.

A manuscript in Brussels, Bibliothèque Royale MS 10147-58 (B), contains a puzzling array of texts. The manuscript dates to the late twelfth or early thirteenth century, and like the Cambridge manuscript, contains portions of Book one and Book three. Often described as a miscellany, the manuscript preserves texts that differ slightly in date and cover a wide range of topics: explications of priestly rites, sermons, including St. Bernard's sermons on the Pentecost and on saints Peter and Paul; texts on St. Veronica; a list of important sites of the holy land; the *Compendium artis picturae*, which includes the portions taken from Theophilus, fragments of Cicero; a grammar; and a text on the landholders in the region of the abbey of St. Laurent in Liège. The manuscript seems to have been produced from a single scriptorium, since the mise-en-page and rulings, are consistent throughout, and the uniformity of the script suggests that like the Cambridge manuscript, it was written within a relatively short period of time. The portion containing the *Compendium artis picturae* is copied by a single hand, in extremely small writing on a cramped page. The *Compendium*, is alone of its kind; containing long commentaries on mixtures not found elsewhere; it even sets certain instructions of Heraclius and Theophilus side by side in parallel columns as if to compare techniques.⁷² It seems possible that the manuscript was a personal collection of technical instructions.⁷³

⁷² Fol. 24v; on fol. 25v the usual single column of text splits into two columns for thirteen lines; on the left is Heraclius, *Flores variantes*, an excerpt describing variations on technique (Heraclius I, 2, in Merrifield, *Original Treatises*, as note 14: 185) and on the right, the first chapter of book one in Theophilus, *De temperamento colorum in nudis corporibus* (On the color for nude bodies), here entitled *De membrana*. For transcriptions of these texts see Silvestre, *Le MS Bruxellensis*, as ch. 1, note 26: 122-126; 133-134.

⁷³ The quire is written in a single hand, in a consistent format of single column of text, with fifty-seven lines per page. The first text is on the Holy Land, *De ortu, vita, et fine pyla, de veronica, et destructione Iudeorum et subversione Ierusalem...* (ff. 19r-20v); there follows two more texts on Jerusalem and holy sites (ff. 21r-23r), and a Letter of an archbishop A. de Nazareth in which he mentions Badouin of Flanders'

The copy of *On Diverse Arts* is unique and cannot be closely linked to either the Vienna or Wolfenbüttel manuscripts; it includes two recipes found only in Harley 3915 and one recipe found in Harley 3915 and in Cambridge E e 6.39.⁷⁴ Silvestre has localized the manuscript to the region around Stavelot or Malmedy;⁷⁵ the existence of sermons, texts on land management, and on ecclesiastical tribunals, however, make it likely that the manuscript came from Liège itself, where it might have been associated with the bishopric there.

The wide variety of texts in the manuscript suggests it was written for a specific individual. With the links to Liège, and the texts that range from sermons to grammar to rites, the manuscript appears to have been a religious handbook, copied for the use of a Liège cleric, whose professional world required knowledge of these various fields. Knowledge of how art was produced, then, was deemed necessary; it was perhaps viewed as being on the same par as, and served a similar function, to the grammatical and religious texts that aided the performance of rites and writing of sermons.

A manuscript in the Sächsischen Landesbibliothek of Dresden seems to have been similar in function. The manuscript was heavily damaged in the Second World War, and can no longer be consulted, so information must be gleaned from pre-war descriptions. It seems to have been a complete copy of *On Diverse Arts*, dating to the late twelfth century and was owned by the monastery of Alzelle. It does not seem to have included the *Mappae clavicula* and was likely to have been the source for the fourteenth-century Leipzig manuscript, MS 1157. According to a description made by Manitius in the early

capture of Constantinople in 1204 (fol. 23v).

⁷⁴ These recipes are ch. lxxxviii, lxxxix, and xc of Book III: “The Tin Jug,” (*de ampullis stagneis*); “How Tin is Soldered,” (*qualiter stagnum solidetur*); and “Casting the Spout,” (*de fundendo effusorio*). Ch. lxxxix, “How Tin is Soldered,” is included in the Cambridge manuscript.

⁷⁵ Silvestre, *Le MS Bruxellensis*, as ch. 1, note 26: 110.

twentieth century, the manuscript comprised a chronicle of the church, an astronomical treatise, writings by Julius Solinus, St. Anselm, and Honorius Augustodunensis, and finally, Theophilus' *On Diverse Arts*. The text was at one point bound with the *Res gesta saxonicae* of Widukundus, monk of Corvey, but seems to have been separated prior to the fifteenth century, when it was rebound; neither manuscript survives.⁷⁶ The Dresden manuscript contains no other source on art making, but with the texts of Anselm, and the *Res gesta* of Widukindus, it seems to have served a specific religious purpose. Here Theophilus' text on art was viewed as a monastic handbook, read in a larger context of theology and monastic chronicles.

This brief an overview of the contents of manuscripts in which *On Diverse Arts* appears shows that the text served a range of interests for other readers. Larger trends begin to emerge. As Malcolm Parkes has shown, it is not uncommon for texts to be adapted for different purposes as they are disseminated and move through time and space.⁷⁷ This we have seen in the Cambridge manuscript. Yet as authors like Parkes or Minnis suggest, the medieval book rarely corresponds to our modern literary categories, and texts did not serve a single purposes but adapted to circumstance. More than a practical guide, more than a religious treatise, Theophilus' *On Diverse Arts* served multiple readers. As is evident through the links to didactic literature and to religious handbooks, in the twelfth and thirteenth centuries Theophilus seems overwhelmingly to have been regarded as belonging to a genre of literature in which practical knowledge about the world was shown to have significant religious import, knowledge that could affect one's understanding of the cosmic order itself.

⁷⁶ The Widukindus manuscript is Dresden Sächsischen Landesbibliothek J38. See Manitius, "Die Dresdner Handschrift des Theophilus," as ch. 1, note 33.

⁷⁷ Parkes, *Scribes, Scripts and Readers*, as ch. 3, note 11.

Later Manuscripts and the Dissemination of the Text: *On Diverse Arts* and the “Recipe Books”

In later centuries, as *On Diverse Arts* was copied and disseminated, the kinds of books with which it was bound changed sharply. One way of dividing the corpus of twenty-five surviving manuscripts surviving from the twelfth through the nineteenth centuries is to separate those manuscripts that contain one of the so-called “recipe books,” the *Mappae Clavicula* and Heraclius’ *On the Colors and Arts of the Romans*,; and those which do not. These two groups correspond to variations in the completeness of the text. Of the eight full copies of *On Diverse Arts*, only one contains recipes of the *Mappae clavicula*, Harley 3915. Of nine partial copies, seven contain recipes of the *Mappae clavicula*. Of the manuscripts containing excerpts, all but one of these combines *On Diverse Arts* with the *Mappae clavicula*. (see also Diagram 1):

Manuscripts with neither MC nor Heraclius	Manuscripts with the MC and Heraclius
<p>Nearly complete copies: Vienna, ÖNB MS 2527 (V), 12th c. Wolfenbüttel, HAB cod. Guelph Gudianus lat. 2°69 (G), 12th c. Leipzig, University Library MS 1157 (formerly Karl Marx University Library MS 1144), 14th c. Paris, BnF MS nouv. acq. lat. 1422, 15th c. Amiens, Bibliothèque Municipale MS fonds Lescalopier 46, 15th/16th c. Venice, Library of San Marco MS lat. 3597, 17th c. Vienna, ÖNB MS 11236, 17th c.</p>	<p>Nearly complete copies: London, BL Harley MS 3915 (H), 13th c.</p>

<p>Partial Copies without MC or Heraclius: Brussels, BR/KB MS 10147-58, 12th/13th c. Klosterneuburg, Augustiner-Chorherrenstift, MS 331, 15th c.</p>	<p>Partial Copies with MC or Heraclius: Cambridge, University Library MS E e 6.39, 13th c. London, BL Egerton MS 840A, 13th c. Oxford, Magdalene College MS 173, 14th c. Florence, Biblioteca Nazionale Centrale MS Palat. 951, 14th/15th c. Paris, BnF MS lat. 6741, 15th c. Wolfenbüttel, HAB Guelph Helmst. 1127 (Wolf. MS 1234), 15th c. London, BL Sloane MS 781, 17th c.</p>
<p>Excerpts: Wroclaw, Biblioteka Uniwersyteka MS IV 8 ° 9, 15th c.</p>	<p>Excerpts: Paris, BnF MS lat. 11212, 12th/13th c. Paris, BnF MS lat. 6830 F, 12th c. with 15th c. additions Munich Bayerische Staatsbibliothek Clm. 444, 14th c. Oxford, Corpus Christi College MS 125, 14th c. London, BL Harley MS 273, 14th c. London, BL Sloane MS 1754, 14th c. Montpellier, École de Médecine MS lat. 277, 14th/15th c.</p>

Neither of the earliest copies of *On Diverse Arts* -- Vienna 2527 and Wolfenbüttel Gud. Lat. 2^o 69 -- contain chapters from the *Mappae clavicula*. The earliest surviving manuscript to contain either a full or partial copy of *On Diverse Arts* alongside the *Mappae clavicula* is the thirteenth-century Harley manuscript. In the twelfth century at least, *On Diverse Arts* was regarded as a coherent, self-sufficient, unified text; as

discussed in previous chapters, its sharp distinction from such works as the *Mappae clavicula* was recognized, as corroborated by early trends of manuscript copying.

Harley 3915 is an exception to many of the apparent patterns in the manuscripts. Dating to the first half of the thirteenth century, it is a relatively early copy, and according to Dodwell, the text of this manuscript is significantly different from the twelfth-century Vienna and Wolfenbüttel manuscripts, which leads him to surmise that it derives from a different family of manuscripts.⁷⁸ Secondly, it is the only manuscript that contains a nearly complete copy of *On Diverse Arts* along with chapters from the *Mappae clavicula*; every other manuscript that contains *Mappae clavicula* chapters is a partial copy of *On Diverse Arts*. Lastly, with the exception of this Harley manuscript, the manuscripts that contain Vitruvius do not also contain chapters from the *Mappae clavicula*.

⁷⁸ British Museum Harley MS 3915 dates from the early thirteenth century and contains five recipes of the *Mappae Clavicula* and five of Heraclius, in a recension of eleventh-century partial copy now at NY, Eastman School of Music, Sibley Music Library MS 1 Acc. 149667. The Heraclius chapters are numbered as consecutive with Theophilus and included in table of contents. Sixteen in total, they address a range of topics, from the sculpting of wood, writing in gold, glass painting, the tempering of iron and of glass, the polishing of gems, or the gilding of copper. The manuscript also includes other extracts: one, of Vitruvius, *De Signis Investigandae Aquae*, book VII, I; three of *Liber de Coloribus*, which are titled in Hendrie's edition of the text as *De ligno brisillo*, *de sinoplo*, and the beginning of *De temperamento colorum*; Hendrie, *Theophilus, qui et Rugerus*, as ch. 1, note 5. The five recipes of the *Mappae Clavicula* are all for the mixing of colors: *Colores in pergameno... alii colores*, *De mixtura colorum*, *Si vis facere uermiculum bonum*, *Si vis facere Azurium*. The last section of the manuscript contains a compilation called *De unguentis* and miscellaneous artistic and technical recipes, including two medical recipes. See Johnson, "The Manuscripts of the *Schedula* of Theophilus Presbyter," As ch. 1, note 5: 91-92 for a detailed analysis of the recipes; and Dodwell, introduction to *De diversis artibus*, as ch. 1, note 5: lxxvii for a discussion of the traditions of the manuscripts. It is worth noting that while Rozelle Johnson has done a very thorough study of the manuscripts of Theophilus and the recipes of the *Mappae Clavicula* that they contain, he only counts twenty-four manuscripts of Theophilus, while by my count, there are ten complete or nearly complete copies, nine partial copies, eleven manuscripts containing excerpts, and five fragments. See Appendix A. The only other manuscripts from the twelfth century that contain recipes from the *Mappae clavicula* contain only excerpts of Theophilus. These are two closely related manuscripts now in Paris: Paris, Bibliothèque Nationale MS lat. 11212, and Paris, Bibliothèque Nationale MS lat. 6830 F. Both of these manuscripts contain Palladius' *Opus agriculturae*, followed by two recipes common to Theophilus (III, 98,96) and the *Mappae clavicula*. Both also contain Varro's *De re rustica*, a text added in the fifteenth century.

That the Harley manuscript contains Vitruvius makes it the last of a trend. There is a fairly large chronological gap in the line of manuscripts that contain Vitruvius. While Wolfenbüttel and Harley, two of the earliest three full copies of *On Diverse Arts* are bound with Vitruvius, no other manuscripts containing Theophilus and Vitruvius together survive before the copies of the Wolfenbüttel manuscript, mentioned above, that were made in the fifteenth century.

Along with Harley, the two other thirteenth-century manuscripts, the Cambridge and Egerton copies, contain portions of the *Mappae clavicula*. As we have seen, however, their emphasis is more on the natural world than on painting specifically. The Brussels and Leipzig manuscripts, in contrast, do not contain the *Mappae clavicula*, even though Dodwell has shown them to be somewhat related to the Harley manuscript, and neither bears a close relation to the Wolfenbüttel manuscript.⁷⁹ Their four later counterparts (Paris 1422, Amiens Lescalopier 46, Venice San Marco 3597, and Vienna 11236, however, are close copies of the Wolfenbüttel manuscript.⁸⁰ This divide, between manuscripts related to Harley and manuscripts related to Wolfenbüttel, neither of which contain recipes from the *Mappae clavicula*, shows that there was more than one tradition of manuscripts that did not contain recipes from the *Mappae clavicula*, and even that the existence of *On Diverse Arts* as separate from the recipe books was more widespread than the manuscript evidence suggests today.

⁷⁹ Leipzig, University Library MS 1157. Dodwell, *DDA*, as ch. 1 note 5: lxvi-lxvii.

⁸⁰ These four manuscripts are: Paris, Bibliothèque Nationale MS nouv. Acq. Lat. 1422, a manuscript in a German hand, probably from the northeastern Rhine region, dating from the fifteenth century; Amiens, Bibliothèque Municipale MS fonds Lescalopier 46, containing what Dodwell describes as a “humanistic hand” and dating to the late fifteenth or early sixteenth century, and two seventeenth-century copies, one now in Venice, Library of San Marco, MS lat. 3597, and the other in Vienna, Österreichische Nationalbibliothek MS 11236. Each is denoted here with a small g to indicate their relationship to G.

Indeed it is from the fourteenth century onward that the split is clearly evident between manuscripts containing the *Mappae clavicula* and those that do not, between manuscripts that contain excerpts only and those that do not.

All the partial copies of *On Diverse Arts* that are bound with *Mappae clavicula* recipes are heavily weighted toward the book on painting, containing at least two-thirds of book one. None of them contain more than a few excerpts from book three, and only one, Wolfenbüttel 1127, contains any part of Book two.⁸¹ This correspondence seems to suggest, quite logically given the content of the recipes, that only those copies of *On Diverse Arts* that were concentrated on painting included recipes from the *Mappae clavicula*. The correlation between those manuscripts containing only portions of *On Diverse Arts* and those containing the *Mappae clavicula* suggests how *On Diverse Arts* was increasingly copied for specialists' purposes. The trend, in fact, only becomes more acute as the centuries progress.

There is one extant copy from the fourteenth century that contains recipes from the *Mappae clavicula*, Oxford 173. It contains book one of Theophilus, along with another text on painting, the *Tractatus qualiter quilibet artificialis color fieri possit*. There are late fourteenth- and fifteenth-century manuscripts that collect information on painting techniques. Florence 951 contains two-thirds of book one of the *On Diverse Arts* along with seventy-six recipes from the *Mappae clavicula*; Paris 6741, the copy owned by Jean le Bègue and dated to 1431, is entirely devoted to painting techniques: it binds Book one of *On Diverse Arts* with the *Mappae clavicula, de coloribus et artibus romanorum*, and Peter of St. Omer's book on color. Wolfenbüttel 1127, dating to the

⁸¹ Wolfenbüttel 1127 contains half of Book II, and excerpts from Book III. Excerpts from Book III are also in Cambridge 1131, and Sloane 781.

second half of the fifteenth century, contains just five *Mappae clavicula* recipes with Book one of *On Diverse Arts*, and excerpts from Books two and three. It seems likely, then, that the link between *On Diverse Arts* and the *Mappae clavicula* did not fully emerge until the thirteenth century and served specific kinds of purposes. Only much later did antiquarians and scholars begin to draw a correspondence between the two. The interpretation of Theophilus would be much affected by the alignment with this seemingly fragmentary, disordered class of text.

Late copies of the entirety of Theophilus largely continue to follow the trend which sees the text in a broader field of knowledge. If we are to follow the trajectory of complete and nearly complete copies of the text, then we see that the thirteenth-century practice of binding *On Diverse Arts* among didactic treatises gives way in the fifteenth century to the broad interests of humanist readers. The Paris and Amiens copies date to the fifteenth or early sixteenth century and both are closely related to the Wolfenbüttel manuscript.⁸² the former is Rhenish, and bound with a mathematical treatise of Nicholas of Cusa, and like the Wolfenbüttel manuscript, also contains Vitruvius' *On Architecture*. The Amiens copy is written in an Italian, humanist hand. It is now bound alone, but was not always, as the gatherings are given numbers. These early modern copies of Theophilus both close copies of the classic Wolfenbüttel text, may mark the beginning of interest in *On Diverse Arts* as a collector's item.

The sixteenth century copies follow a similar pattern. Sloane 781 contains Book one of Theophilus, with excerpts from book three and forty-one *Mappae clavicula* recipes. The order of the recipes in this manuscript follows that of the thirteenth-century manuscript Cambridge E e 6.39, although significantly, unlike the Cambridge manuscript

⁸² Dodwell, as note 5, lviii.

it does not contain the agricultural and medical texts by Palladius and Macer. Thus it appears that after the fourteenth century the text of Theophilus was viewed as something more specialized, a text to be bound with other texts on painting. This trend may be seen as a parallel to what we have observed about the readers and cataloguers of Theophilus in the sixteenth century. It begins to become clear how Agrippa, Gesner, and Simmler could cite Theophilus within the history of glass, or within the history of alchemy, and categorize it as a rare medieval sourcebook, and what it implied about the book to do so. Theophilus gained renewed fame in the seventeenth century when the three copies of the earlier Wolfenbüttel, Vienna, and Cambridge manuscripts were made.⁸³

The trend, then, appears to be that most partial copies contain only Book one, that they are likely to be bound with the *Mappae clavicula*, and that this extracted text increasingly become considered a specialist's book on painting. This contrasts both the earlier partial copies, where *On Diverse Arts* is bound with texts on astronomy, agriculture, and medicine. As is evident in the oldest copies, of Vienna and Wolfenbüttel, there appears to be a sharp divide in the manuscripts: on the one hand, the most complete texts are usually bound not with the *Mappae clavicula*, but with theoretical texts such as Vitruvius or Nicholas of Cusa. Once the text is divided however, the first book is the most often copied, and it is compiled with other recipes for painting, increasingly serving as a specialist's instruction book.

Thus we come full circle, from the Middle Ages back into the early modern collectors and readers of Theophilus, who have steered so much of our understanding of *On Diverse Arts*. From the first copies of *On Diverse Arts*, we see the text as both a

⁸³ London, British Library Sloane 781, a copy of Cambridge MS 1131; Venice 3597 and Vienna 11236, copies of the twelfth-century Wolfenbüttel manuscript with the title of the Vienna Manuscript.

practical handbook and a theoretical text, and indeed, as we have seen, the structure and content of the book itself allow this to happen, as encouragement to good behavior in the prologues is made manifest in the actions of the prologues. It seems, however, that as the Middle Ages gives way to the early Modern period, the subtle nature of the structure gets lost, particularly as excerpts of the book are copied and read. The excerpts of the book are thus evidence of readers culling the text for certain kinds of information, and this, in fact is a tradition we see continuing into our own time, as we read the text for clues to medieval art technique. Yet as we follow the trends of later manuscripts, however, we see a long, and persistent tradition of binding Theophilus with texts of the didactic genre, other kinds of texts that provide technical information within a theoretical framework. Seeing *On Diverse Arts* in this latter context has been particularly fruitful, as it sheds a new light on Theophilus, encouraging us to read it for the way it casts knowledge of art into a larger sphere of understanding God's world, where science, religion and art converge.

Conclusion

On Diverse Arts is one of the only complete treatises on art to survive from the central Middle Ages. It has been copied for hundreds of years, and read by monks, scholars, collectors, and painters. For all the readers it has served, however, the text itself remains reticent about its own function and for whom exactly it was intended. It has been the purpose of this dissertation to consider the text within the twelfth-century monastic context in which it was written in order to glean from it a theory of art, a set of ideas that may guide our understanding of medieval objects.

It is the manuscripts of the text that provide the clearest guide for how the text was understood in the Middle Ages. The manuscripts of Theophilus *On Diverse Arts* show the various ways in which the text was read, highlighting various themes. An examination from this point of view is one dependent on reception, it is an approach that does not seek a unified intent behind the manuscripts, but uses each manuscript instead to highlight the purposes the text served for medieval readers. Each manuscript is a physical artifact with traces that show a readers' interest in *On Diverse Arts*, and as such, provides a distinct point of view on the text. An examination of the manuscripts shows differences in layout, in the marks left by readers, in the texts with which they are bound. Through

analysis of each particular variation of *On Diverse Arts*, an understanding of how the text may have functioned in the twelfth century begins to come to the fore.

Most significantly, *On Diverse Arts* emerges as a narrative, a structured text in which prologues and instructions progress according to a trajectory of ascent. Once prologues and instructions are seen as serving the same goal, the text can be understood as expressive of a theory for art. Prologues and instructions serve the same agenda, and carry similar themes, which show how the act of art making was valued in the twelfth century.

The Wolfenbüttel manuscript asks the reader to see Theophilus in terms of Vitruvius, and the field of knowledge presented in *On Diverse Arts* builds upon the antique knowledge of architecture as transmitted by the ancient Roman writer. From the fine manuscript we have seen the theme of spiritual ascent and technical ascent progress in tandem, even to be interdependent, so that art technique becomes a series of hierarchical exercises, and a mark of ability and mastery.

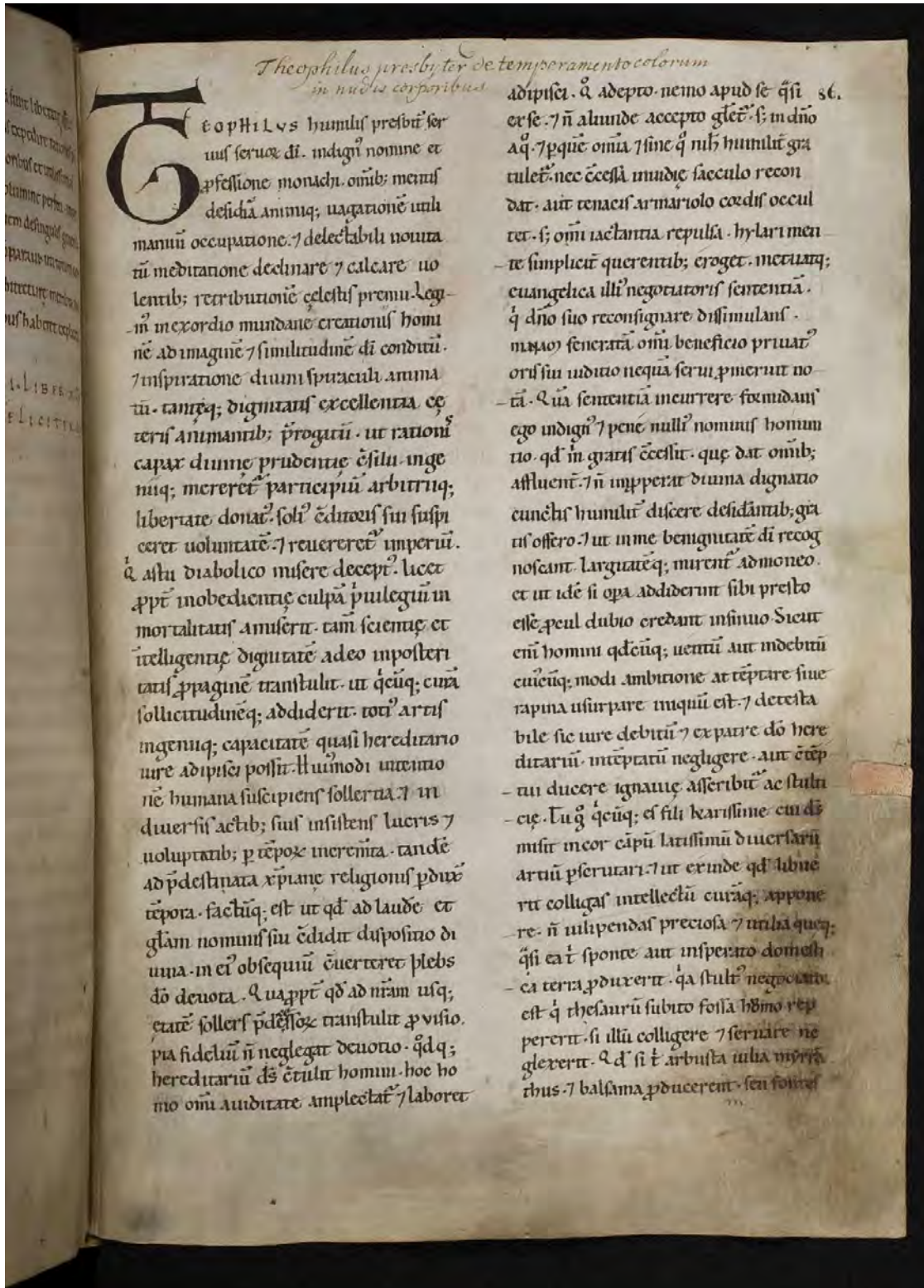
In contrast, the Vienna manuscript is a tribute to the artisan behind the pseudonym; by recording the memory of Roger and preserving the memory of particular visual elements associated with his work, it aligns a personalized, localized history and praise for artistic skill with the knowledge presented in *On Diverse Arts*. From the inscription naming Roger and the drawings of the manuscript we can begin to see techniques as a mark of identity and as markers of memory, perhaps even a guarantee of quality that carries value.

The Harley manuscript suggests we look to how techniques might be performed as an exercise of virtue, so that each action described in the instructions carries with it a

moral imperative. From the pointing hands in the Harley manuscript we begin to see how art making can involved a series of choices, each with a moral or virtue attached to it, so that the process of making an object can be the practice of virtue, and the object itself can be read as the trace of good procedure, the trace of virtuous behavior.

The Cambridge manuscript, the subject of the last chapter, in turn is evidence of the many kinds of genres in which Theophilus could be cast, and highlights the benefits and limitations of each. Lastly, from the multiple contents of this manuscript -- its agricultural texts, scientific texts, and painting instructions, --we begin to see how Theophilus could be used for different agendas at different points of time, eventually becoming the specialists' book on art technique that it is most known for today, but also we begin to see how across these contexts *On Diverse Arts* can be interpreted as a book of knowledge of the world, a book that explains the nature of materials and how they may be manipulated.

Figures



1. Wolfenbüttel Herzog-August Bibliothek cod. Guelph Gudianus lat. 2°69, fol. 86r, incipit Theophilus, *De diversis artibus*. Mid-twelfth century.

M. VITRUVII DE ARCHITECTURA LIBRI.

INCIPIT LIBER I.

Dum diuina tua mens
 et numeri imperatoris caelo
 no postear orbis terrarum in
 uictisq; uirtute eunc h' hostib; strati
 triumpho me iorasp; uictat' glori
 genitor' genies omis suba te tua spe
 uita et uirtut' populisq; romanis et
 solatus libertatis timore amplissimul
 tuis cogitationibus eundemq; guber
 naretur non tadeb' t'ant' occupato
 ribus diarectat' h'ca scripta a mag
 nis cogitationibus exph'ca edere me
 tuens nonnapro tempore interpel
 lans fabre tutamini offensionc
 Cum uero attendere te non solum deui
 ta communito m'ca cura publicoq; re
 constitutione habere sedena deopor
 tantate publica adificioru uti
 uat' p'ce consoli prouinit' effec
 tuc de ueracita ut mandis impeni
 publico adificioru exiguu' habere
 ite domat' non putat' pretermi
 tendi quoniam quoq; tempore de
 f'is n' b' canbi edere. Itaq; quod primu
 parenti uo deo facta potus et eius
 uirtut' f'ardiosat. Cum aut' conciliu
 celestiu m'edat' innotat' t'ant' co de
 ch'auisset a imp'ia parentis intua
 p' uirtute tam uirtute de studium
 mea meul' m' o' p' manens ite con

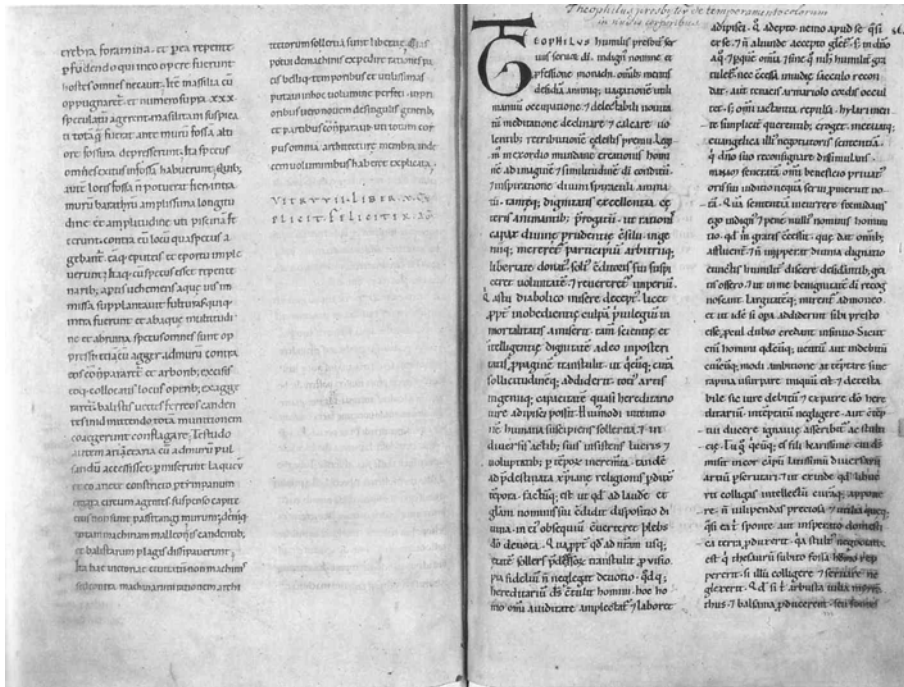


adit' quod; itaq; cur' a uirtute
 m'edat' co concilio ad p'ca
 tione ballistaru a scorpionu relectu
 ruiq; tormentora relect' tione fir
 presso a uirt' commoda decept' q'ua
 primo mihi tribuisti recognitionem
 p'loris commendatione seruasti. Cu
 ergo co beneficio esse obligatus ut ad
 certu uir non habere inopie timo
 res h'ec tibi scribere cepi qd' ammad
 uerti multa te p'ficauisse a nunc
 edificare. Reliquo quoq; tempore
 et publicoru et priuatoru edificia
 su p' amplitudine reru gestarum
 et p' uirt' memorie tradentur
 cura habituro. Conscripsi p'scriptio
 nes terminatas ut eas attendenti
 et ante facta a futura qualia sim
 opera p'te posses nota habere. Itaq;
 his uoluminibus aperui omis disci
 pline rationes
 re h'ec ut scientia plumb; discipli
 nis et uanis eruditionib; ornata. cu
 iudicio p' bant' oia que ab expertis
 artib; p'ficiunt opera ea nascetur
 ex fabrica a ratiocinatione
 abricat' continuata ac uita usus me
 diuano quem anib; p'ficiu. C' m'ca unus
 cuiuscunq; generis opus ead' p'p'it' m'
 deformationis. A. in ueracita uir e
 quens fabricat' solentie ac p'ca

de archi
 tectis in
 Antiquitatib;

N
 ooulet
 h'g'ent' p'p'

a. Wolfenbüttel Herzog-August Bibliothek cod. Guelph Gudianus lat. 2°69, fol. 1r, incipit Vitruvius, De architectura. Mid-twelfth century.



b. Wolfenbüttel Herzog-August Bibliothek cod. Guelph Gudianus lat. 2°69, fol. 85v, explicit Vitruvius, *De architectura*, and fol. 86r, incipit Theophilus, *De diversis artibus*. Mid-twelfth century.

In epi prologo libri primi
Theophilus humilis pbr seruus seruus
 di. indigni nomine ypfessione monachi
 omib; mris defidia animeq; uagatio
 ne uali manu occupatione idelicta
 bili nouitatu meditatione declina
 re ualeate uolentib; retributione
 celestis pmi. Legim in exodo mun
 dane creationis homine ad imagine
 i similitudine di uerū uispiratione
 diuini spiraculi animatu tanteq; dig
 nitatis excellentia cetis animantib;
 progatu ut rationis capax diuine
 prudentie cōsilio igeniq; mereret
 participiū arbitriūq; libere donat
 soli creatoris sui suscipet uoluntate
 irreuereret impium. Qatu diabolico
 misere decept licet ppi inobediencie
 culpa pūlegiū imortalitatis amise
 rit tam scientie et intelligentie dig

Berns: Rotten dorff D.
 C. 12. 120. XLVII.
 Medic. Caser. ad elect. d.

2. Vienna, Österreichische Nationalbibliothek MS 2527, fol. 1r, incipit Theophilus, *De diversis artibus*. Mid-twelfth century.

— queat & ita humidū cū glutine calei supponat.

De glutine corii & cornū cerui. xvii.

Qua diligent exsiccatū, tolle measuras eiusdē corii simili exsiccatū, & diligenter incide par ticulatū & accipient cornua cerui minutatū ocontracta. malleo ferrarij sup incide. conpo ne mollam novam donec sit dimidia. & imple eam aqua. sicq; adhibe ignē don excoquat tēra pars eiusdem aque sic tam ut non bulli at. & ita p̄babit. fac digitos humidos tuos eadē aqua. & cum refrigerati fuerint si sibi ad herent. bonū est gluten. sin autē tandem coque. donec s̄ adhererant. Deinde effund ipsum gluten in uas mundū & rursū i ple ollam aq̄ & coque sic p̄. sicq; facias usq; quates. **De albatū gypsi. xviii.**

Post hec tolle gypsum. more caleis cornu am. siue creta q̄ pelles de alban. & tere diligenter sup lapidē cum aqua. deinde mitte in uas testē. & infundent gluten eo ri pone sup carbonē. ut gluten liquefiat. sicq; limes cum pincello sup ipsum cornū tenuissime. ac deinde cum sicū fuerit



4. Altar of Henry of Werl, Roger of Helmarshausen, c. 1110.
Paderborn Diocesan Museum.



5. Altar of the abbey of Abdinghof, Roger of Helmarshausen, 1115-1120.
Paderborn Diocesan Museum.



6. Enger Cross, Roger of Helmarshausen, c. 1110. Berlin Kunstgewerbemuseum.
a. Enger Cross, front.



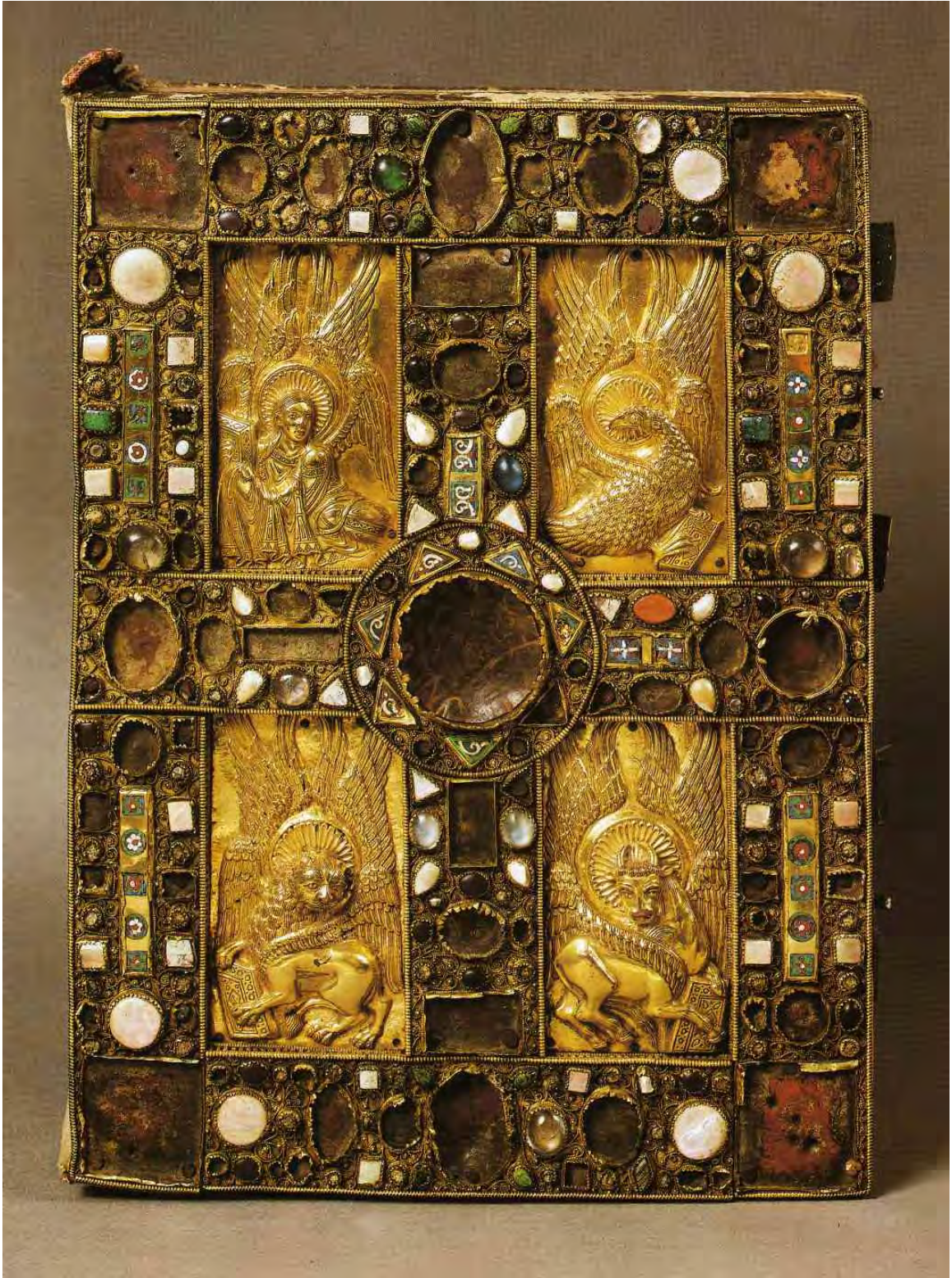
b. Enger Cross, reverse.



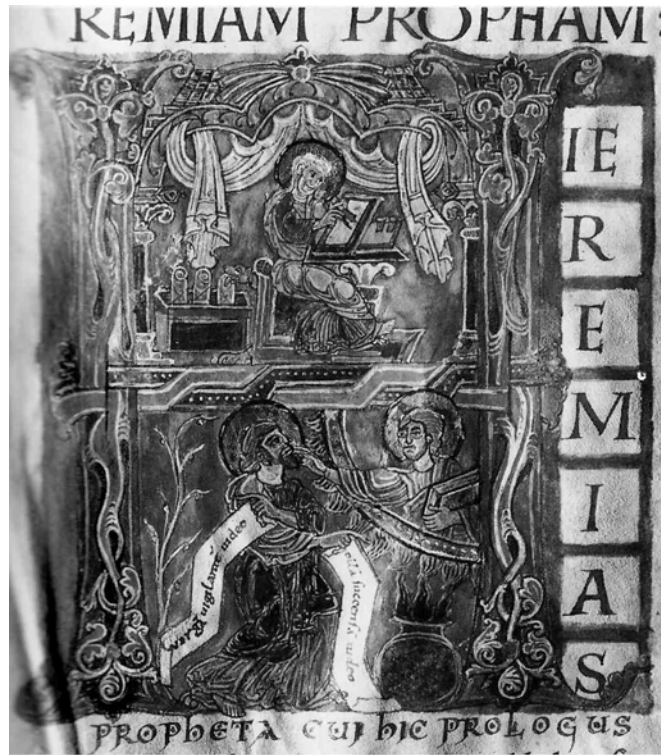
7. Crucifix, Roger of Helmarshausen, 1115-1120.
Frankfurt, Museum für Angewandte Kunst.



8. Modoaldus Cross, Roger of Helmarshausen, before 1107.
Cologne, Schnütgen Museum.



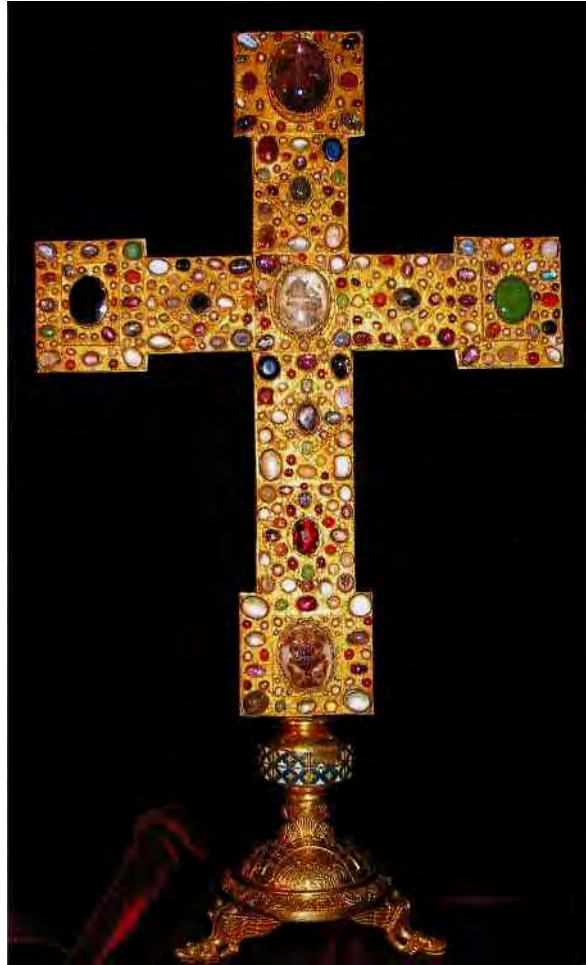
9. Bookcover, Roger of Helmarshausen, c. 1100. Cathedral of Trier, Domschatz.



10. Jeremiah Initial from the Stavelot Bible, Roger of Helmarshausen(?), 1097.
London, British Library Add. MS 28106, fol. 161r.



11. Crucifix, Circle of Roger of Helmarshausen, first half twelfth century, Cologne, Schnütgen Museum.



12. Cross, Circle of Roger of Helmarshausen, 1130-1150. Fritzlar, Domschatz.



13. Portable altar of the abbey of Stavelot, 1150-1160.
Brussels, Musées royaux d'art et d'histoire.



a. Portable Altar of the Abbey of Stavelot, 1150-1160.
Underside, with émail brun.



14. Unidentified Prophet, wall painting fragment from the upper gallery of St. Gereon, last quarter, eleventh century. Cologne, St. Gereon.



15. Gozbertus Censer, c. 1100. Cathedral of Trier, Domschatz.



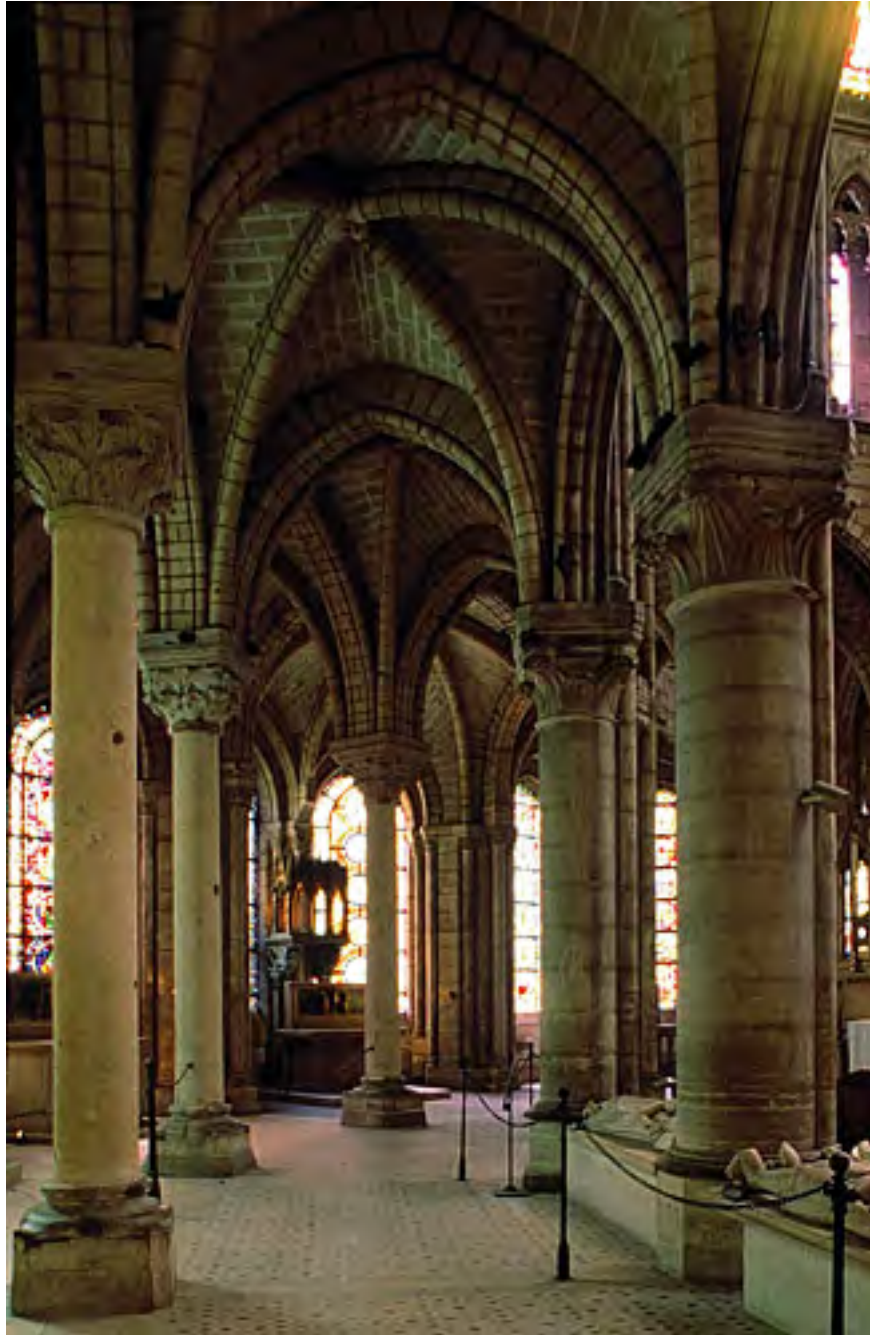
16. Wilten Chalice, German, c. 1150-1160. Vienna, Kunsthistorisches Museum.



17. Church of St. Pantaleon, Cologne. Tenth century, modern rebuilding.

saphiro .i. iii. simul coctū i acutinos face
 lapides **ferro ut rubei.** Sumet a uallo
 ferri i coqsi igne q̄ ea infundet unā
 uenā rubei inueniendo cōmde ea p̄
 tūllo mirro cupro. i sic infunde i cōrū
 in somace. **Aliter.** Irudi intro cupro
 mirro sup fundat cōrū perā arden
 nā. **Aliter.** **T**olle .ii. partes argenti
 i cōrū cupri i ac purū stannū adu
 ens argentū i cuprū bene potest coq̄
 cere. **aliud.** **T**olle .iiii. partes argē
 tā cup. fundetq̄ illud simul. **aliud q̄ dicitur**
Dual partes argē i igne i cōrū i cōm
 mātā stannū parte mirra solida i cō
 rā si leuit calefacta ad igne. **Sumo mirri**
Tabula cupri q̄ .v. pollices habeat mlt
 citissime i cōrū in longitudine de
 rō aurī deaurari potest. **Sumo argē**
Sumū argē adheferit opi aurū
 non potest in igne mittere. acceperit
 nā hominis i tarse simul aurū i cōrū.

18. *Mappae clavicula*, Corning, Museum of Glass Bib 72720, fol. 56v.



19. Chevet, abbey church of St. Denis, c. 1144.



a. Anagogical window, chevet, abbey church of St-Denis, c. 1144.



20. Head of Christ, glass fragment, abbey church of Sts. Peter and Paul, Wissembourg, late eleventh or early twelfth century. Strasbourg, Musée d'œuvre Notre-Dame.



21. Altar of Henry of Werl, detail, top panel.



22. Portable altar of the abbey of Stavelot, 1150-1160.
Brussels, Musées royaux d'art et d'histoire. Top panel.



23. Christ in Majesty, wall painting, apse, abbey church of Sts. Peter and Paul, 1120. Reichenau, Niederzell.



24. Reliquary of St. Alexander, abbey of Stavelot, 1145.
Brussels Musées royaux d'art et d'histoire



a. Reliquary of St. Alexander, front view with enamels: Sts. Sevens, Alexander, Theodolus.



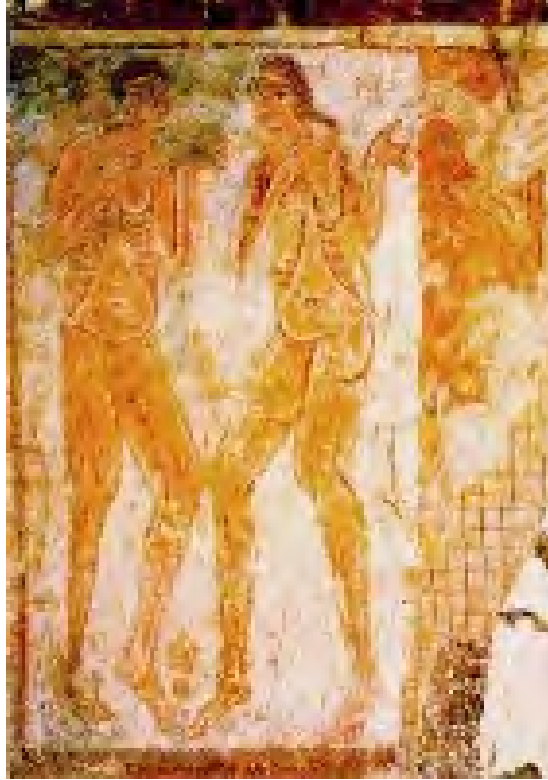
b. Reliquary of St. Alexander, side view (right) with detail of enamels:
humilitas, pietas, scientia.



c. Reliquary of St. Alexander, back view with detail of enamels: *fortitudo*, *sapientia*, *consilium*.



d. Reliquary of St. Alexander, side view (left) with detail of enamels: *intelligentia, sapientia, perfectio.*



25. Temptation of Adam and Eve, wall painting, chancel, church of St. Botolph, early twelfth century. Hardham, Sussex, England.



26. Christ in Majesty, Stavelot Bible, 1097. London, British Library Add. MS 28106, fol. 136r.



28. Noah and the Rainbow, Noah window, bay 47, north aisle, Chartres cathedral, early thirteenth century.

In nomine dei et individue trinitatis. Dominus ipse presentis. ^{de paderbornensi} ecclesie. Notum esse volumus tam vobis quam posteris
 cunctis acie xpi. fidelibus no. potentia. potestas. no. leges. et ^{pro} iure. ^{restitutioni}. d. d. d. c. c. c. sic que in helm. v. d. h. u. l. on. est. ecclesie
 In honore dni. saluatore. nec non et beati simi. ap. l. p. r. i. n. c. i. p. i. s. p. e. t. r. i. c. o. n. t. r. a. t. e. ecclesiam que est in uilla thele. nuncupam. rogari. arg.
 conueni. clari. se. p. a. d. e. b. u. r. n. e. n. s. i. s. ecclesie. contulisse. & iure. p. e. r. p. e. t. u. o. c. u. m. o. m. n. i. b. u. s. a. p. p. e. n. d. i. s. i. d. e. m. d. e. m. i. s. s. i. s. e. t. i. n. c. u. s. p. r. a. t. i.
 p. o. l. e. b. u. s. a. q. u. i. a. q. u. a. r. u. m. u. e. d. e. u. r. i. b. u. s. p. r. e. s. e. n. t. i. b. u. s. i. n. t. i. m. e. t. u. s. e. t. i. a. m. r. e. l. i. q. u. a. m. i. m. p. r. e. c. e. p. t. a. m. a. d. a. n. i. m. d. e. o. i. l. l. i. c. e. s. e. r. u. i. e. n. t. i. u. m. t. r. a. d. i. d. i. s. s. e. l. e. g. i. s. s. e. c. o. n. t. r. a. t. i. s. s. e.
 D. e. c. i. m. a. t. i. o. n. e. q. u. o. q. i. n. u. l. l. a. q. u. e. m. i. s. t. e. n. d. i. c. i. t. e. o. d. e. m. m. o. d. o. i. m. p. o. s. s. i. b. i. l. i. t. e. r. p. e. r. p. e. t. a. m. c. o. n. t. r. a. t. i. s. s. e. p. r. o. s. a. l. u. t. e. c. o. p. o. s. i. t. e. t. e. t. a. n. t. e.
 n. o. s. t. r. e. e. t. o. b. i. t. e. m. o. r. a. m. p. o. p. p. o. n. i. e. p. i. a. n. t. e. c. e. l. e. s. t. i. n. o. s. t. r. e. q. u. i. e. d. e. m. e. c. c. l. e. s. i. e. b. a. n. n. u. m. e. p. e. l. l. e. i. n. u. l. l. a. i. p. s. e. n. s. i. m. o. n. a. s. t. e. r. i. s. c. u. m. s. e. p. t. e. m.
 a. d. i. a. c. i. o. n. i. b. u. s. e. c. c. l. e. s. i. s. c. o. n. t. r. a. t. i. s. i. n. t. a. l. i. d. o. n. a. t. i. o. n. e. r. e. s. t. a. u. r. a. t. u. m. p. r. e. s. e. n. t. i. s. s. e. h. a. e. r. e. t. i. c. i. s. i. n. h. e. r. e. t. i. c. i. s. q. u. a. m. a. b. i. p. s. o. m. o. n. a. s. t. e. r. i. s. p. a. t. e. n. t. e. a. c. c. e. p. t. a. s.
 i. n. u. l. l. a. o. b. r. e. d. i. a. t. i. o. n. e. s. e. l. i. c. i. m. e. m. o. r. i. e. i. m. a. d. e. p. i. s. t. o. l. i. c. i. s. p. r. e. d. e. c. e. s. s. o. r. u. m. n. o. s. t. r. o. r. u. m. R. e. s. t. a. u. r. a. t. u. m. a. u. t. e. m. p. e. r. h. a. n. c. e. e. a. n. d. e. m. i. n. u. l. l. a.
 n. o. n. e. m. e. d. e. m. e. c. c. l. e. s. i. e. c. r. u. c. e. n. a. u. t. a. m. q. u. a. m. i. n. d. e. c. u. m. c. o. n. s. u. e. t. u. d. i. n. e. a. b. o. s. t. i. t. u. i. s. s. e. a. l. i. q. u. a. m. s. u. r. t. u. m. a. c. c. e. p. t. u. m. a. r. q. a. d. a. n. t. i. q. u. i. t. e. t. e. t.
 d. e. c. e. m. n. o. s. t. r. e. q. u. i. i. n. p. a. d. e. b. u. r. n. e. e. s. t. m. a. g. i. s. t. r. e. t. r. a. n. s. i. t. u. m. n. e. c. o. n. e. s. t. e. r. t. i. u. m. q. u. o. d. n. o. s. t. r. o. i. m. p. r. e. s. e. n. t. i. s. s. e. e. t. i. a. m. a. d. e. c. c. l. e. s. i. e. l. o. q. u. e. r. u. s. s. e. n. t. e. p. o. s. t. e. r. i. o. r. e. i. n. h. o. n. e. m. s. u. i. x. y. u. a. m. a. r. q. l. a. b. o. r. i. s. f. a. b. r. i. c. a. u. g. u. s. t. i. e. r. u. a. l. i. u. s. u. r. g. o. a. r. q. l. e. g. n. u. s. b. a. n. n. i. s. a. e. p. i. s. t. o. l. a.
 t. r. o. n. i. s. i. d. e. o. b. e. n. e. d. i. c. t. i. m. e. n. t. i. o. n. e. u. t. n. o. u. e. r. i. t. s. u. c. c. e. d. e. n. t. e. s. n. o. b. i. s. a. d. t. r. a. d. i. t. u. m. q. u. o. d. a. c. c. e. p. t. u. m. n. e. c. d. e. s. t. r. u. e. n. d. u. m. q. u. o. d. s. a.
 n. u. m. u. s. i. n. i. q. u. i. t. u. r. h. i. c. s. u. r. t. u. m. p. e. r. p. e. t. u. o. s. i. m. a. n. o. b. i. s. n. o. s. t. r. e. i. l. l. i. q. u. e. e. c. c. l. e. s. i. e. a. c. h. u. n. d. i. s. e. t. i. a. m. p. r. e. n. o. t. a. t. i. s. p. e. r. m. a. n. e. a. n. t. h. e. c.
 d. e. s. e. r. i. b. i. u. s. i. n. s. i. m. u. s. e. t. s. e. g. i. l. l. i. n. o. s. t. r. e. i. m. p. r. e. s. e. n. t. i. s. s. e. s. i. g. n. a. u. i. m. u. s. A. n. n. o. q. u. o. q. d. o. m. i. n. i. n. o. s. t. r. i. i. h. u. x. p. i. e. t. b. e. a. t. i. s. s. i. m. i. a. p. t. o. s. t. o. l. i. c. i.
 p. r. i. n. c. i. p. i. p. e. t. r. i. n. o. s. t. r. a. q. u. a. m. a. c. c. e. p. t. u. m. l. e. g. a. n. d. i. a. r. q. s. o. l. u. e. n. d. i. a. u. t. o. r. i. t. a. t. e. h. u. m. a. n. i. u. m. e. t. h. u. m. a. n. i. u. m. S. i. q. u. i. s. a. i. n. t. e.
 h. e. r. i. n. t. r. a. n. g. e. r. e. u. e. l. d. e. s. e. r. u. e. r. e. p. r. e. s. u. m. p. t. o. r. i. e. s. e. t. e. c. u. m. o. m. n. i. b. u. s. s. e. b. i. c. o. m. p. a. n. t. i. b. a. n. a. t. h. e. m. a. t. e. p. e. r. p. e. t. u. o. a. b. e. o. q. u. o. n. o. s. t. r. e. d. e. n. d. i. t.
 b. e. a. t. o. p. e. t. n. o. d. a. m. p. n. a. t. u. m. n. o. u. e. r. i. t.

Data xviii. kl. s. p. e. n. t. e. m. b. r. i. s. a. n. n. o. d. n. i. c. e. i. n. c. a. r. n. e. t. e. o. i. l. l. o. c. a. n. t. i. s. i. n. d. i. c. t. i. o. n. e. v. i. i. s. e. d. i. n. a. t. u. r. o. s. t. r. o. b. a. n. n. i. c. i. e. p. i. a. n. n. o. x. v. i.

29. Paderborn Document, first third, thirteenth century. Paderborn, Erzbistumarchiv, Urkunden Generalvikariat Nr. 11.

Incipit prologus libri primi
Theophylus q̄ x̄ kvoc̄iv̄ s̄. Dediit̄ artib̄
Theophylus humilis p̄br̄ servus servorum
d̄i. indigni nomine ypfessione monachi.

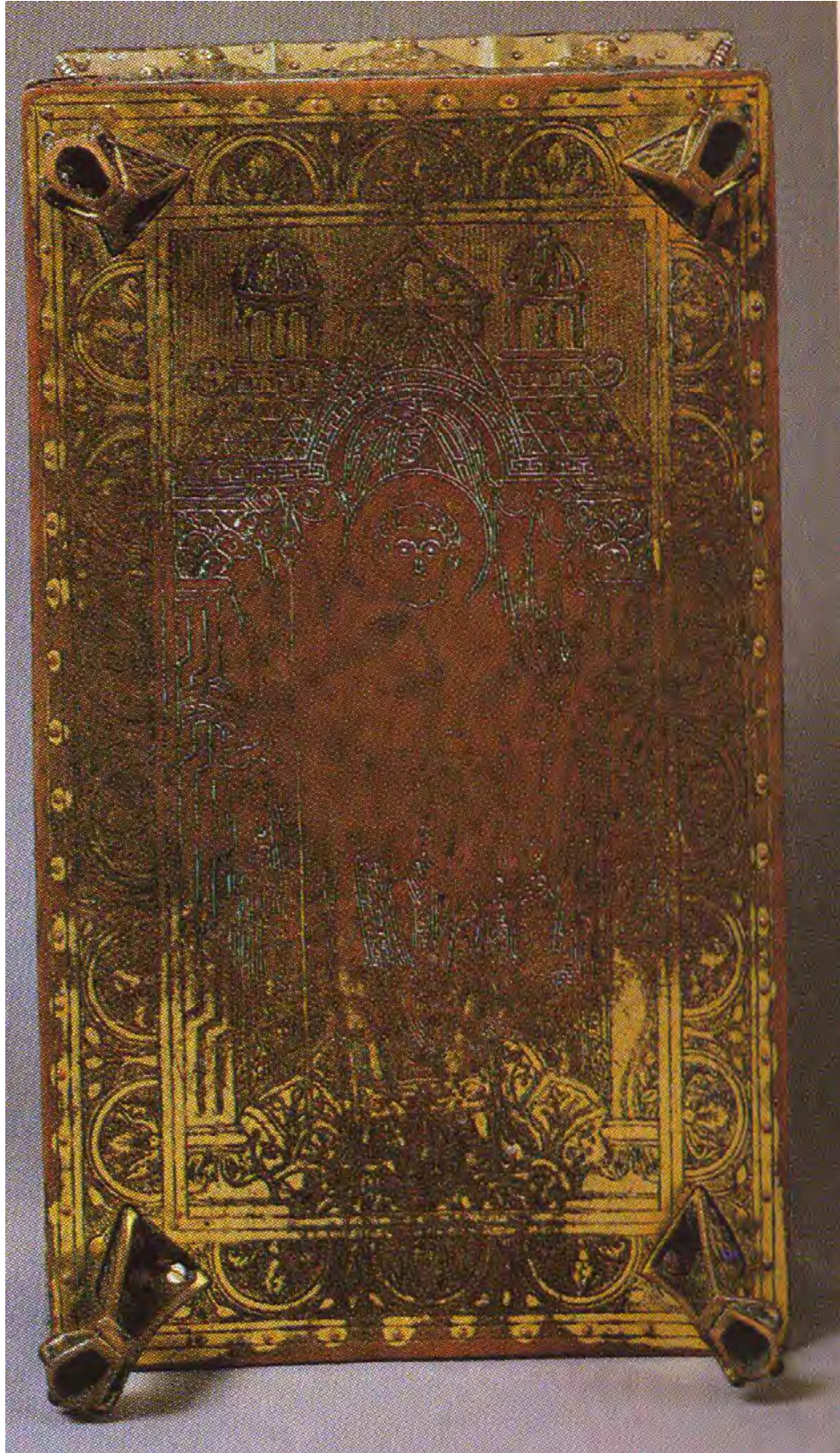
30. Vienna MS 2527, fol. 1r, detail.

us et coepit uidere; Et restitutus est ita
ut uideret clara omnia et misit illum
in domum suam dicens; Uade in domum
tuam et si inuicem inquieris nemini
dixeris.
In illo tempore. Cum intraret ih̄s in domum
cuiusdam principis pharisaeorum sab
bato manducare panem et ipsi obser
uabant eum; Et ecce homo quidam
hydropicus erat ante illum; Et respon
dens ih̄s dixit ad legis peritos et phari

31. Fragment of a Lectionary, 1009-1036. Stuttgart, Hauptstaatsarchiv, J522B B Xa 588.

seris & sabulu de sup atq; aqua
imponere lapide minore q; lig
no unct^o e tenens q; i supiori
parte ipsu lignu e itte modicu
ut man tuas. & max impulsu il
li. lapidis q; qligat e i feru
ciferet. sic q; circufiendo
mole p m. l. iiii. horas. In du
u respice & p ba digito & iur
su imitte sabulu cu aq. Cuiq;
gyrando & regyrando ipsu sabulu
cepit ebullire. & p lapide dif
fundi cu ligno gelli longo &
tenui re collige sep & i foram
re pone. ne forte auru cu sabulo
egerat & n molat. Id cu plent
molu fuerit. eciat & lauet.
& siccet ut sup. ponat q; sup
libra. Si u qe qm defuerit la
uent sordes q; fluunt ex lapide

32. Vienna MS 2527, drawing, acanthus leaves, insert between fols. 70v-71r.



33. Altar of Henry of Werl, copper plate, underside.



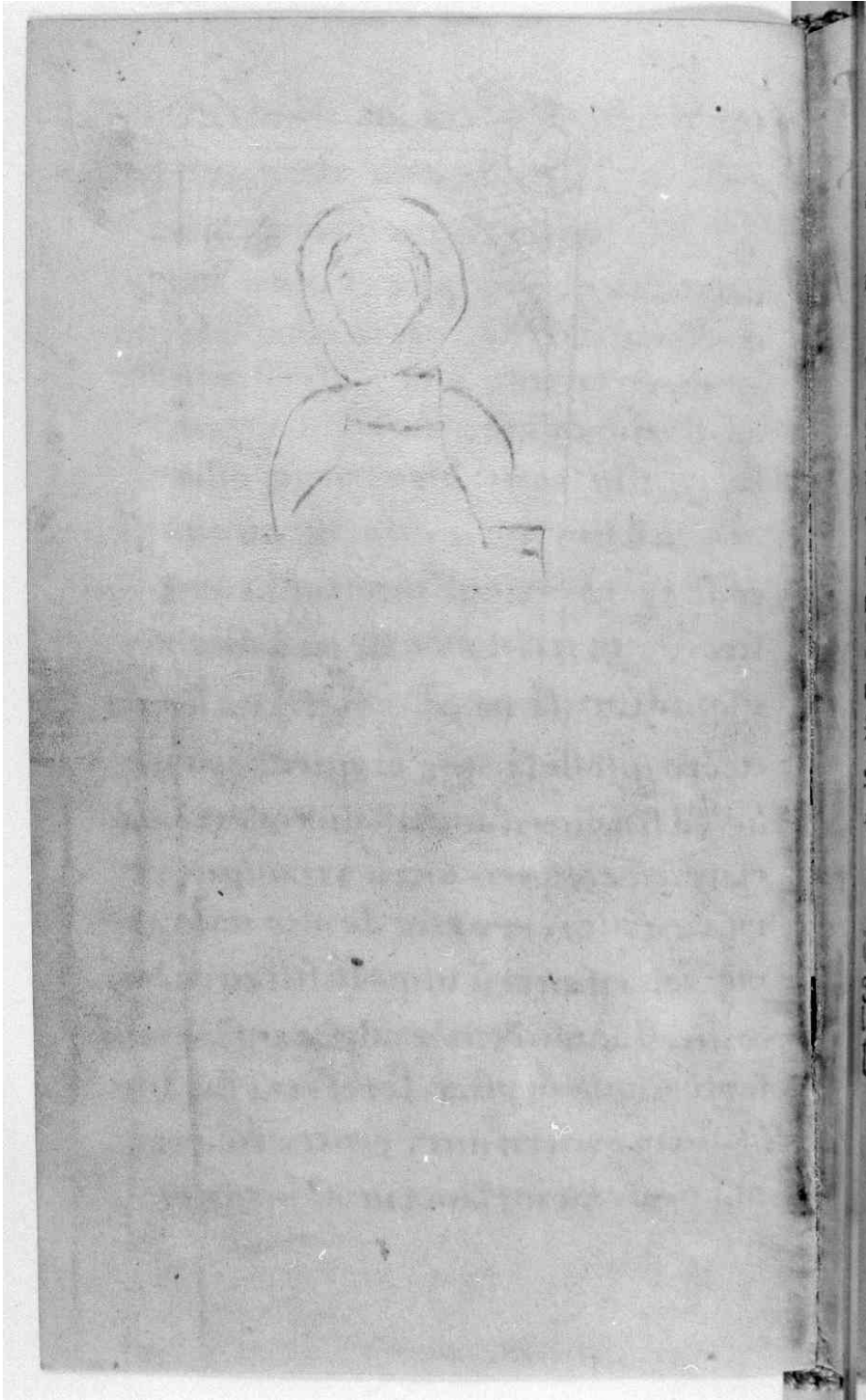
a. Altar of Henry of Werl, copper plate, underside, detail.



34. Bookcover of Abbess Theophanu, 1039–1058. Treasury, Essen Minster.



35. Cross of Theophanu given to the abbey at Essen, 1039-1058. Treasury, Essen Minster.



36. Vienna MS 2527, sketch, fol. 52v.



37. Stavelot Triptych, abbey of Stavelot, mid-twelfth century. Morgan Library, New York.



a. Stavelot Triptych, detail of cross-hatching.



38. Altar of Henry of Werl, detail, end panel with Christ with Saints Kilian and Liborius.



39. *Liber vitae* of the abbey of Corvey, 1158, Münster, Staatsarchiv MS I, 133, fol. 26.



40. Altar of Henry of Werl, end panel, Virgin with John and Jacob.



41. Altar of Henry of Werl, side panel with Bartholomew and Phillip.



42. Enger cross, reverse side, detail, ox of Luke.



43. Enger cross, reverse side, detail, angel of Matthew.



44. Eger cross, reverse side, detail, eagle of John.



45. Eger cross, reverse side, detail, lion of Mark.



46. Portable altar of Gertrude, c. 1045, Cleveland Museum of Art.



47. Portable altar of Fulda, first third, eleventh century. Paris, Musée National de Moyen-Âge – Thermes de Cluny.



49. Portable altar of Gertrude, detail, top panel.



50. Portable altar of the abbey of Abdinghof, detail, top panel.



51. Portable altar of the abbey of Abdinghof, side panel with St. Blaise.



52. Portable altar of the abbey of Abdinghof, side panel with Felix of Aquilea.



53. Portable altar of the abbey of Abdinghof, detail, end panel with St. Peter and monk.



54. Portable altar of the abbey of Abdinghof, detail, end panel with martyrdom of St. Paul.



55. Cross of Lothar, c. 985-991, Treasury, Aachen, Palatine Chapel.



56. Imperial Cross of the Holy Roman Empire, 1024. Imperial Treasury (Schatzkammer), Vienna.



57. Osnabrück cross, late eleventh century. Osnabrück, Cathedral Treasury.



58. Eger cross, detail of lower arm, with gem settings and filigree.



59. Codex Aureus of Echternach, abbey of Echternach, 985, Nuremberg, Germanisches Nationalmuseum Hs. 156142.



60. Reliquary of St. Andrew's Sandal, 997-983. Cathedral of Trier, Domschatz.



61. Altar of Henry of Werl, detail of filigree, top panel.



62. Censer cover, Godefried of Huy (?), early twelfth century. New York, Metropolitan Museum of Art, The Cloisters.



63. Cain and Abel, bronze door of Bernward, c. 1015. Hildesheim Cathedral.

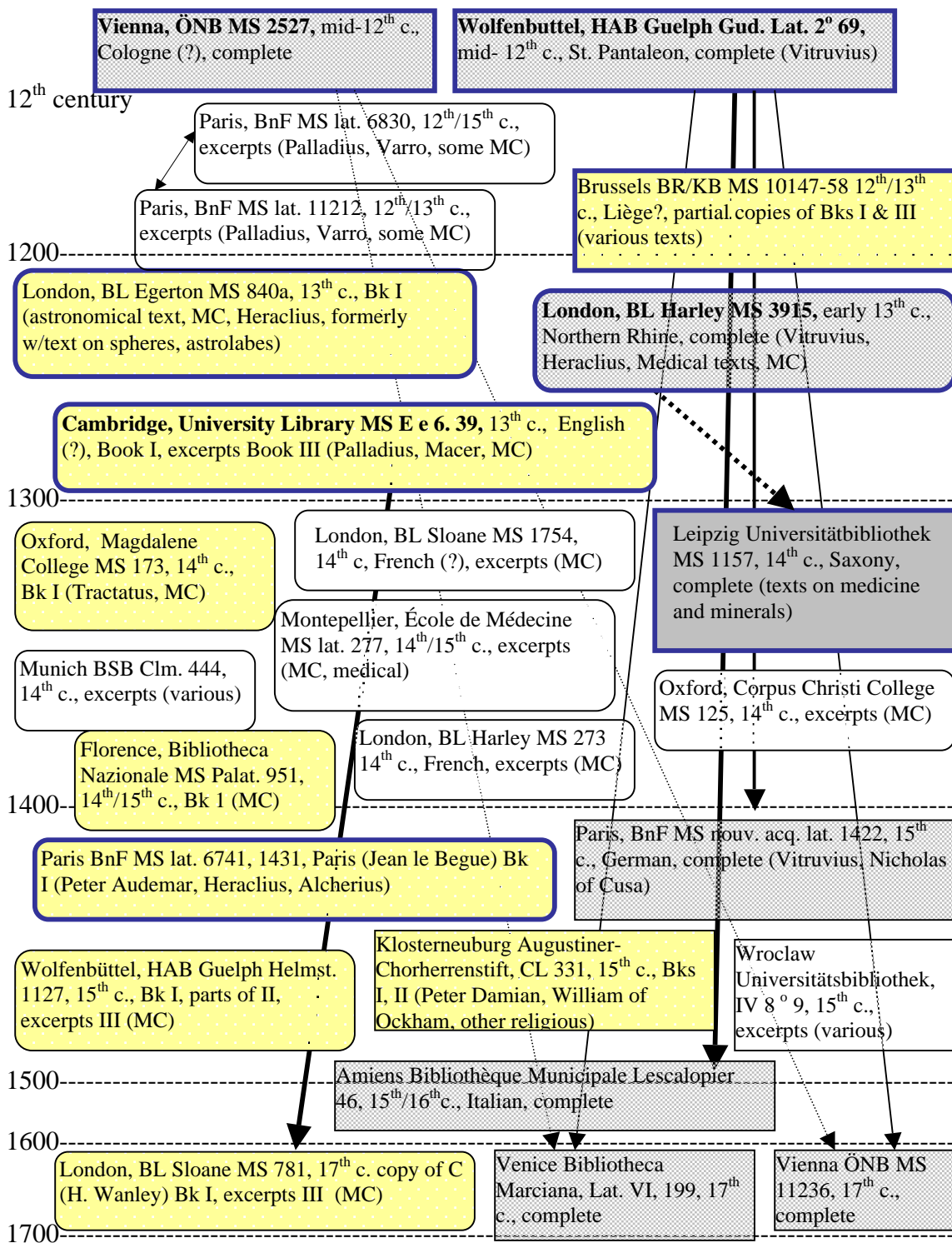


64. Healing of the Outcasts, bronze column of Bernward, c. 1015-1022, Hildesheim Cathedral.



65. Bronze Font of Reiner of Huy, c. 1118, Liège, St. Bartelèmy.

Diagram 1: List of Manuscripts



Blue outline: primary MS for Dodwell's translation

Gray fill: Full copy

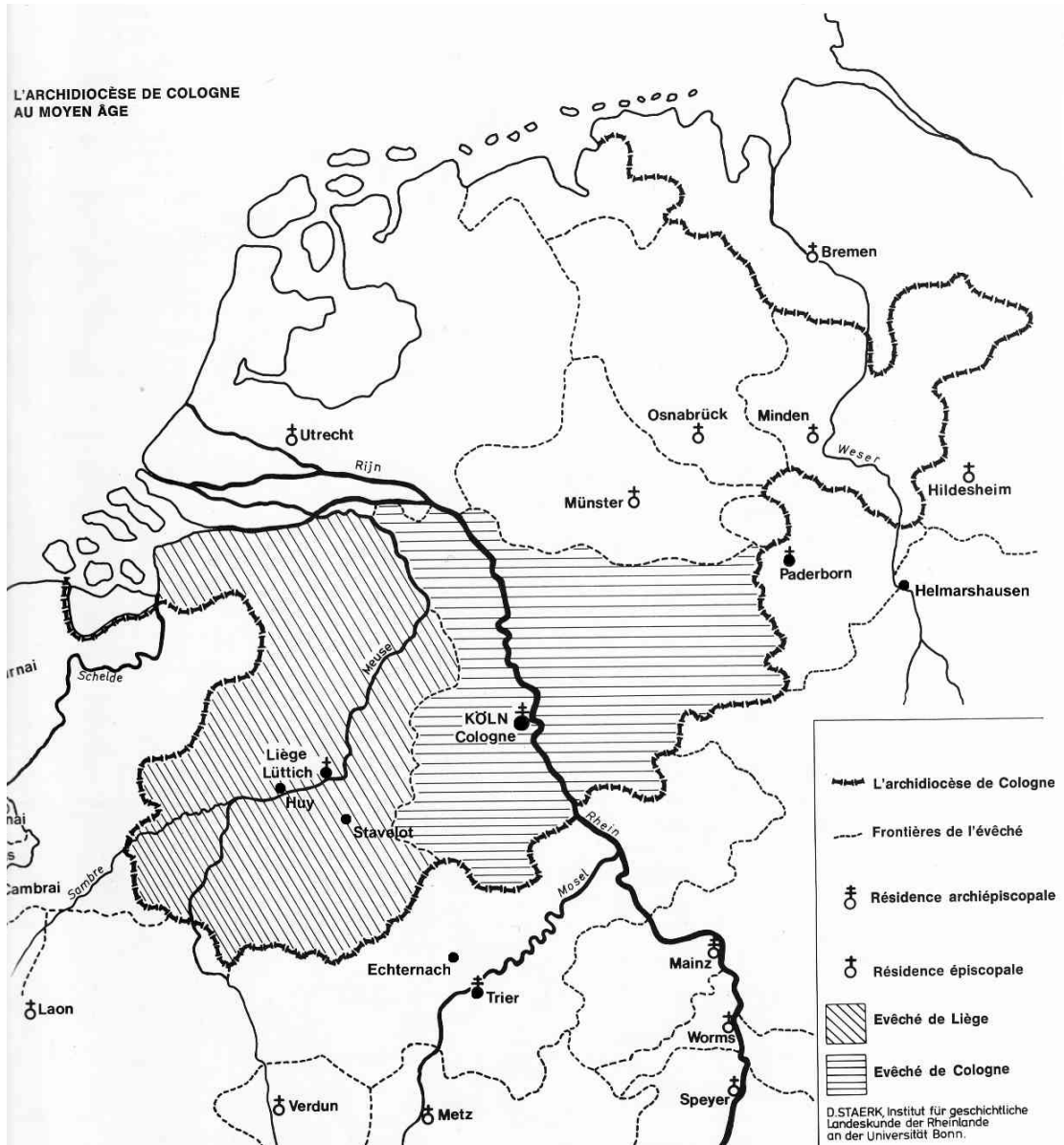
No fill: Excerpt

Yellow fill: Partial copy

Rounded edge: includes *Mappae clavicula*

Also note there are two 19th c copies at Amiens: MSS 117 & 47

Diagram 2: Map of Rhine-Meuse Region



Amended from *Rhein und Maas, Kunst und Kultur, 800-1400*, exh. cat. (Cologne: Schnütgen Museum, 1972).

Appendix A: Checklist of Extant Manuscripts of *On Diverse Arts*

Vienna, Österreichisches Nationalbibliothek MS 2527 (V)

Theophilus, *De diversis artibus*

125 x 75 mm; parchment; 117ff.

Early to mid-twelfth century

Cologne (?) or Nordrhein-Westfalen

1. (ff. 1r-117v) Theophilus, *De diversis artibus*.

- (ff. 1r-4r) Prologue I
- (ff. 4r-5r) Prologue II
- (ff. 5r-8r) Prologue III
- (ff. 8v-9r) Capitula, Book I
- (ff. 9r-32v) Book I
- (ff. 32v-33v) Capitula, Book II
- (ff. 33v-52r) Book II
- (fol. 52v) Blank, with sketch
- (ff. 53r-53v) Capitula, Book III
- (ff. 53v-117v) Book III

Description

The parchment is of uneven quality, even within gatherings, and often is very thick. Some of the folia are reused sheets from a liturgical manuscript (fols. 4, 7, 71, 74, 87, 90, 117). Pricked and ruled; 21 lines per page; one column; one hand.

Collation

I¹⁰, II-IV⁸, V-VI⁸⁺¹, VII-XIII⁸, XIV⁹

Decoration

There are small red initials and rubrics throughout. Two-line initials mark the beginning of each book; all other initials are one-line.

Drawings and sketches

- (fol. 8r) sketch, eagle head.
- (fol. 18v) pointing hand, at ...*mittatur in frigida aqua donec indurescat*.
- (fol. 52v) sketch of a design for a figure in a frame, probably for metalwork.
- (ff. 70-71) sketch of a partially colored pattern on a stub between fols. 70, 71.

Comments

All pages follow the same format. The text is written in a small angular hand, which is consistently neat and smooth. The first gathering contains all three prologues as well as the capitula of the first book, indicating that the prologues must have been written all together, and placed at the front of the volume deliberately. The last folios of this gathering are inserts.

There are some rough sketches in the volume (fols. 8r, 18v, 52v, and on a fragment between fols. 70 and 71) and blank spaces at fols. 55v, 58v, and 109r. There is also a green stain on the upper right of fol. 57r, which may suggest some sort of studio use, since there is otherwise no green in the manuscript itself.

The first and last pages (fols. 1r, 117v) are very dirty, as though the manuscript remained unbound for a time or lost its binding or cover at a certain point. Most of the dirt and oil is on the opening folio, in the outer margins of the page (fol. 1r), where hands would have regularly touched it when taking up the book and turning the first page. Otherwise the text is fairly clean.

Binding

17th century.

Bibliography

- Bischoff, "Die Überlieferung des Theophilus-Rugerus," 176.
Dodwell, ed., *De diversis artibus*, Introduction, lix-lxiii.
Ilg, ed. *Theophilus Presbyter Schedula Diversarum Artium*.
Johnson, "The Manuscripts of the Schedula of Theophilus Presbyter," 89-90.
Lehmann, "Aus dem Leben, dem Briefwechsel und der Büchersammlung,"
Legner, ed., *Ornamenta Ecclesiae* I, cat. no. B128.
Mazal, *Byzanz und das Abendland* II, 486, no. 388.
Österreichische Nationalbibliothek, *Tabulae codicum manu scriptorum*, II, 92.
Stiegemann, and Wemhoff eds., *Canossa 1077*, II, 446, no. 531.
Theobald, ed., *Technik des Kunsthandwerks im zehnten Jahrhundert des Theophilus*.
Thompson, "The Schedula of Theophilus Presbyter," 212-213.

Dodwell, Ilg, and Theobald drew on this manuscript in their editions of the text.

Wolfenbüttel, Herzog-August Bibliothek Codex Guelph Gudianus lat. 2°69 (Wolf. 4373) (G)

Vitruvius, *De architectura*; Theophilus, *De diversis artibus*

205 x 285 mm; parchment, with one paper insert (fol. 115); 115 ff., plus one fly leaf
Vitruvius: eleventh century; Theophilus: first half, twelfth century; fol. 115: 15th century
St. Pantaleon, Cologne

1. (ff. 1r-85v) Vitruvius, *De architectura*, Books I-X
2. (ff. 86r- 114v) Theophilus, *De diversis artibus*.

- (ff. 86r-86v) Prologue I
- (ff. 86v-87r) Capitula, Book I
- (ff. 87r-92v) Book I
- (fol. 92v) Prologue II
- (ff. 92v-93r) Capitula, Book II
- (ff. 93r-97v) Book II
- (ff. 97v-98v) Prologue III
- (ff. 98v-99r) Capitula, Book III
- (ff. 99r-115r) Book III

Explicit ch. lxxxvi,¹ *de organis: ...Hoc ordine omnes fistulae fiant; mensuram vero singularum a plectro superius secundum magisterium lectionis faciat, a plectro autem inferius omnes unius mensurae et eiusdem grossitudinis erunt.*

Description

The entire manuscript is made of very fine, thin, parchment. Pricked and ruled; 34 lines (Vitruvius) and 38 lines (Theophilus) per page; both sections follow the same format of two columns. Three hands: eleventh century (ff. 1r-85v); twelfth century (ff. 86r-114v); fifteenth century (fol. 115r).

Gatherings

I⁶⁺¹, II⁶, III¹⁰⁺¹, IV⁶, V¹⁰, VI⁶⁺¹, VII-IX⁸, X⁸⁺¹, XI⁴⁺¹ || XII⁶⁺¹, XIII-XIV⁸⁺¹, XV⁶

Decoration

Vitruvius, *De architectura*

- (ff. 1-85v): Rubrics and initials throughout, titles in red and black, small red initials. Marginal notes and corrections are also in an eleventh-century hand.
- (ff. 1r): Large black D initial, 4-line.
Incipit Liber I is written over *Codex ex mon. Pantaleonis*.
- (fol. 4v): Profile head in margin at book I, ch. ii, on water and health: *...et de fontibus salubribus aquarum usus subministrabuntur, celerius convalescent...*

¹ Note this is Dodwell, *DDA*, as ch. 1 note 3: III, lxxxvi.

- (ff. 41r): Drawing of a profile head in left margin, at incipit book VI: *Aristippus philosophus Socraticus, naufragio cum eiectus ad Rhodiensium litus animadvertisset geometrica schemata descripta, exclamavisse ad comites ita dicitur: 'bene speremus, hominum enim vestigis video!'*
- (fol. 58r): Pointing hand at book VIII, at ...*cum ergo et aphisicis et philosophis*, in paragraph incipit: *apparatus aut ad auxilia caloris solis impetus, et ignis inventus...*
- (fol. 71v): Note in margin of book IX, *mensura horologiorum*.
- (fol. 85v): *Liber X explicit felicitur amen.*

Theophilus, *De diversis artibus*

- (ff. 86r-115r) Red initials and rubrics throughout, with some oxidized silver.
- (fol. 86r) Black 4-line initial "T" matching Vitruvius initial "D".
An additional title is written in later hand, 18th century: *Theophilus presbyter de temperamento colorum in nudis corporibus.*

Comments

There are many marginal notes and corrections in the Vitruvius text; some sections are underlined, marking where G differs from other manuscripts of text. There are also corrections throughout the text, of spelling or declension. The Theophilus text, however, has clean margins with very few markings. There are small initials and rubrics, but otherwise there is no decoration in *On Diverse Arts*.

Provenance

Manuscript was allegedly in the collection of Georg Agricola, 16th century, as mentioned by Josais Simmler and Conrad Gesner. The was also kept in Paris from 1807-1815.²

Bibliography:

- Bischoff, "Die Überlieferung des Theophilus-Rugerus," 176.
- Dodwell, *De diversis artibus*, lvii-lxiii.
- Johnson, "The Manuscripts of Theophilus Presbyter," 89, 101.
- Legner, ed., *Ornamenta Ecclesiae*, I, cat. no. B129.
- Lehmann, "Aus dem Leben, dem Briefwechsel und der Büchersammlung," 187.
- Stiegemann, and Wemhoff, eds., *Canossa 1077*. II, 446, no. 532.
- Thompson, "The *Schedula* of Theophilus Presbyter," 211-212.
- Heinemann, *Kataloge der Herzog-August Bibliothek Wolfenbüttel*, 121-122.

Lessing, Theobald, and Dodwell drew on this manuscript in their editions of the text.

Binding

16th century, leather, stamped with fleur de lis and rose medallions. Restored, 1955.

² Gesner, *Epitome*, fol. 173r. See also Heinemann, *Kataloge der Herzog-August Bibliothek*, 122.

London, British Library, Harley MS 3915 (H)

Theophilus, *De diversis artibus*; Heraclius, *De coloribus et artibus romanorum*; excerpts from the *Mappae clavicula*; *Liber de coloribus*; Vitruvius, *De architectura*; *De unguentis*

150 x 110 mm; parchment

150 ff., 7 and 4 paper flyleaves

Early 13th century

Germany, Nordrhein

1. (fol. 1r-v) Flyleaf, *deficie du cinebii vivu argo fuis...*
2. (ff. 2r-109v) Theophilus, *De diversis artibus*
(fol. 2r) Capitula, Book I
(ff. 2r-20r) Book I
(ff. 20r-21r) Prologue II
(fol. 21r) Capitula, Book II
(ff. 21v-35r) Book II
(ff. 35r-37r) Prologue III
(ff. 37r-38v) Capitula, Book III
(ff. 38v-109v) Book III
explicit: ch. xcv, *Poliunturque ut supra.*
3. (ff. 109v-113v) Heraclius, *De coloribus et artibus romanorum*
incipit: *de aurea scriptura ...*³
explicit: *...de cupro fellis pinguedine de aurando.*⁴
4. (ff. 114r-115r) Unidentified extract:⁵
De temperamento vesicae escini
(fol. 115r) Excerpt of Faventius, on the finding of water (Vitruvius book VIII, section 3): *De signis investigandae aquae*
Explicit: *frigida gratia eitrate hyborno tepida suavitate pfuent.*
5. (fol. 115r-120r) Excerpts from the *Liber de coloribus* and *Mappae clavicula*
incipit: *in vermiculo quarta pars minii addenda est...*
explicit: *...et tunc aperi illam ampullam, et quod inveneris in ea dimitte ad solem siccare.*
6. (ff. 120r-144v) *De unguentis*
7. (fol. 145r) Blank
8. (ff. 145v-147v) Seven more chapters with instructions, and an unknown text

Description

Parchment, pricked and ruled; 24 lines per page, single column.

Several hands: 1) flyleaf (fol. 1r-v); 2) Theophilus, *De diversis artibus* (ff. 1r-109v), Heraclius and excerpts (ff. 109v-115r); 3) excerpts (ff. 115r-120r) and *De unguentis* (ff. 120r-142v); 4) last section of *De unguentis* and unknown text (ff. 142v-147v). Some

³ Heraclius, *de coloribus et artibus romanorum*, Book I, vii, in Merrifield, 191.

⁴ Heraclius, *de coloribus et artibus romanorum*, Book II, xvi, in Merrifield, 199.

⁵ The text from folios 114r-120r are published in Hendrie's edition, though he attributes most to Heraclius, which is incorrect. See Hendrie, 406-422; for a discussion of the sources and correspondences between this portion of text, the *Mappae clavicula*, and the *Liber de coloribus*, see Thompons, 284

additional notes in thirteenth century hands (eg. fol. 2r) and fifteenth century hands, (eg. fol. 149v).

Collation

I-XII⁸, XIII-XIV⁸⁻¹, XV⁸, XVI-XVIII⁸, XIX⁸⁻¹
Quires I-XIV (ff. 2r-111v) are labelled.

Decoration

Pointing hands in the margins:

- (fol. 20r) *in librum secundum*, line 13.
Hand points down and to the left (right margin, recto). This line is divided in two, though both of the same hand. It begins with *in precedenti libello | librum in secundum* so that the title of *librum in secundum* is added on separately (though by the same hand) to the text, *in precedenti libello*. The pointing hand is in a light brown ink, identical to the ink used throughout the manuscript.
- (fol. 20v) *luce clarius constat. Quia quisquis otio studet*, line 3.
Hand points up and to the right (left margin, verso).
- (fol. 36r) *per spiritum sapientiae cognoscis a deo cuncta creata procedere*, lines 3-4.
Hand points down and to the left (right margin, recto).
A marginal note added here by the rubricator reads: *nota conformationem septem spiritum cum vii operum artibus*, line 3.
- (fol. 36v) *& opus perosium varietate miratur quod si forte*, line 9.
Hand in left margin. There is also a marginal note here, inserting missing text, in a similar hand: *si quinta feci p-tulerit fuis corpibus corrugi amitia*.

Drawings

- (fol. 18v) animal head at end of initial *S*
(fol. 19v) 8-line scroll ornament at *de incausto* (I, xl)
(fol. 33v) animal head on initial *S*
(fol. 79v) animal head at initial *D*

Comments

There are red initials and rubrics throughout to mark chapter titles and chapter numbers. Four-line initials mark the beginning of some chapters, as visible on folio 9v. Quires are numbered, in same hand and ink, at the bottom of each quire; book numbers are given at the top of each page, also as is visible on folio 9v, 19v. A scroll marker is visible on folio 19v, at *de incausto*.

Two folia are missing, between ff. 102v-103r and ff. 110v-111r. A scribal error in chapter numbers at fol. 102v lists ch. lxxxv twice.

Provenance

Certain N. obtained the book at Münster in 1444

(fol. 149v) Inscription: *Emi ego N. hunc librum munster [...] 1444, in die sancti lamberti in dieta inter dominum Eugenium papam et antipapam felicem.*

Bought for Edward Harley by George Suttie, agent of Nathaniel Noel (d. c. 1753), bookseller, for Harley collection. Passed to British Library in 1753. A letter of Suttie mentions a set of books, including some with chemical recipes as having come from the collection of Nicholas of Cusa; according to Hallauer, the inscription on folio 149v reads Nürnberg, rather than Münster, and thus he identifies the manuscript with a known purchase of books by Nicholas of Cusa in Nürnberg in September 1444.

Bibliography

A catalogue of the Harleian Manuscripts in the British Museum 3, 96, no. 3915.

Bischoff, "Die Überlieferung des Theophilus-Rugerus," 179.

Dodwell, *De diversis artibus*, lxiii-lxv.

Hallauer, "Cod. Harl. 3631 und Cod. Harl. 3915," 94-103, 99-103.

Johnson, "The Manuscripts of the Schedula of Theophilus Presbyter," 90-92.

Singer, *Catalogue of Latin and Vernacular Alchemical Manuscripts* II, 594-596: no. 873 iii; 596: no. 875.

Theophilus, Presbyter, *Theophilus, qui et Rugerus*, ed. R. Hendrie.

Thompson, "The Schedula of Theophilus Presbyter," 214-215.

Wanley, Humphrey, *A catalogue of the Harleian collection of manuscripts* 2, no. 3915.

Hendrie, Bourrassé, Ilg, and Theobald drew on this manuscript in their editions of the text.

Binding

Restored by British Library, 1966. Red leather with gold tooling are visible inside cover, these are traces of a binding typical for manuscripts of the Harley collection.

Cambridge, University Library MS E e 6.39

Palladius, *Opus agriculturae*, Macer, *De viribus herbarum*, Theophilus, *De diversis artibus*

155 x 185 mm, parchment; 147 ff., plus one flyleaf, paginated in three parts.

Thirteenth century

English (?)

Part I

1. (fol. 1r-v) flyleaf, blank
2. (fol. 2v) Table of contents
Palladius, *Opus agriculturae*; Macer, *De viribus herbarum*;
Theophilus, *De diversis artibus*; *Speculum penitentis* (William de Montibus); *Lapidarium* (Marbod of Rennes?), *Glose super antidotarium* (Nicholas of Salerno?), *Alexander de arte predicandi* (Alexander of Ashby), *Tropus magistri W. de montibus*.
3. (ff. 3r-104v) Palladius, *Opus agriculturae*. 28 lines per page, one column, rubricated, catchwords, trimmed
Title: *Palladii rutili tauri emiliani viri illustris opus agriculturae incipit tituli libri primum*
Incipit: *parset prima prudentie ipsam cui precepturus et estimare personam ...*
Explicit: *lectas baccas eorum arbore statim quidem rittere et petroailinum sternes inter spacias structionis.*
Text is incomplete; torn page at 104v would have included the end of Palladius.

Part II

4. (ff. 1r-26v) Macer, *Liber de viribus herbarum*. 27 lines per page, two columns, narrow margins, rubricated, second hand, with notes by a later hand in the margins.
Title: *Liber macri de viribus herbarum*
Incipit: *permui in libro macri de virtutibus herbarum ...*
Explicit: *...una diagridii sic apta solutio fiet.*
- (ff. 27r-28v) Blank (27r is ruled but blank)

Part III

3. (ff. 1r-15v) Theophilus, *De diversis artibus in primis coloribus*. 27 lines per page, 1 column, wide margins, rubrications until fol. 14v, third hand.
Title: *prologus primum liber Theophili monachi et presbyteri de diversis artibus in primis de coloribus*
- (ff. 1r-2r) Prologue I
- (ff. 2r-9v) Book I (no capitula)
- (fol. 9v) *explicit liber de coloribus.*
- (ff. 9v-15v) Book III, excerpts

- (fol. 9v) unnumbered: *de purganda antiqua deauratura*, (Dodwell, ch. lxxix), *de purgando auro et argento* (Dodwell, ch. lxxx), *quomodo stagni solidatur* (Dodwell, ch. lxxxix)
- (fol. 10r) *de solidatura ferri* (Dodwell, ch. xcii, partial), *de sculptura ossium* (Dodwell, ch. xciii, half)
- (fol. 10v) *de rubricando osse* (Dodwell, ch. xciii), excerpts from *de poliendis gemmis*, xciv, xcv (partial),
- (fol. 11r) *de temperamento limarum*, *de temperamento ferri* (Dodwell, ch. xviii-xxi)
- (fol. 11v-13v) Excerpts from *Mappae clavicula*
Auri solucio, aureas litas scribe aliter
- (fol. 12r) *Auri perspicio italica aerta aliter, aliter*
- (fol. 12v) *aliter auri inspergiter sivi auro*
- (fol. 13v) *argenti, argenti inspergite, ad inridi colorem*
- (fol. 15v) Mostly blank; three lines of text with explicit *Mappae clavicula*
Explicit: *indie de incausto aut de indico matix de auripigmento*
Colophon (later hand):
Sepe laboravi venitque meus labor a vi
Serpentis gnavi condicione gravi
Cui quondam favi quia fraude lupi laboravi
Et peccans pravi crimine laboravi
Ergo labora vi summa ne quam tolleravi
Penam peccati promeriere parti

General Description

Small, square volume, rebound thirteenth century. Thin parchment, pricked and ruled throughout.

Collation

I-IX⁸, X⁴⁺², XI⁶⁺², XII⁸, XIII⁶⁺² || XIV-XV⁸, XVI¹² || XVII¹⁰, XVIII⁸⁻³

Decoration

Part I: red and green initials throughout, blue initial on folio 3r, at incipit.

Part II: red and green initials

Part III: blue and red initials, four or five lines.

- (fol. 1r) Blue, fifteen-line initial “T” with red line fill design.
- (fol. 1v) There is here a very faint fragment of a drawing, which may be a smudge from an inserted page, or perhaps was done in a light crayon and has since faded. It may be a rub-off from the facing page (fol. 2r), though due to rebinding the pages no longer align well. It seems to be a figure and plant.
- (fol. 2r) Large red, 10-line initial ‘C’ with red line design filled in.
In bottom margin is a drawing of a dragon, with wings, fire in mouth, and horns. It is drawn in red ink, similar to that of the line ornament in the initials. To the left of the dragon are faint crayon outlines of a female figure similar to that on fol. 6v. Figure faces left, and holds her left hand at

her hip; her right hand is extended, with her elbow bent. She holds something in her left hand but it is in discernible. Above her left shoulder, and also above the dragon, is the faint outline in crayon of a four-legged beast, like a lion, with a tail, walking toward to the right. Further right, on the other side of the dragon, is a plant with birds, and near it a figure, which is again very faint, and may be a centaur or some kind of beast. There is also a bird on the right side. Trimming of the bottom of the page has caused the lower areas to be lost.

- (fol. 3r) Ten-line blue and red initial. There are smudges of blue ink here, and oil marks.
- (fol. 6v) Female figure, perhaps a virgin (?), holding a lily, crayon.
- (fol. 9v) Faint lines of a blue pattern, similar to patterns in the initials.
- (fol. 12r) Drawing of a lion, in red ink, similar in style to four-legged beast on fol. 2r.
- (fol. 13v) Large dragon drawn on bottom edge of page in crayon.

Comments

The table of contents, in a thirteenth-century hand in part I of manuscript, contains texts not included in volume. Fifteenth-century insertion in table of contents notes lack of contents: *non infra*.

Theophilus' text is clean and parchment is fine, though there are some marks of pigment, such as a coppery smudge on 1v, which seems to be a rub-off from something else, perhaps an insert. The text has been notated for easy reference: on folio 3v there are marks of At to designate the items to be added to the mixture for the colours to be used for drapery (ch. xiv, Mixing colours for draperies on a panelled ceiling), so a very long chapter is broken up into smaller steps. There are also a number of smudges and pigment stains, as on fols. 4v, 5v. Overall, the drawings in the Theophilus section of the manuscript seem to be by a similar hand as the design in the letters. The colophon at the end of Theophilus text is in a hand similar to that of the insertion on fol. 2v and to notes in Macer which are fifteenth century.

Provenance

Richard Holdsworth collection, bequest to Cambridge University Library, 1664.

Bibliography

A Catalogue of the Manuscripts Preserved in the Library of the University of Cambridge, II, 276-277, no. 1131.

Dodwell, *De diversis artibus*, lxiii-lxv.

Johnson, "The Manuscripts of the *Schedula* of Theophilus Presbyter," 93.

Theophilus, Presbyter. *Theophilus, qui et Rugerus*, ed. R. Hendrie.

Thompson, "The *Schedula* of Theophilus Presbyter," 214-215.

Dodwell, Raspe, Escalopier, Ilg, and Theobald drew on this manuscript for their editions of the text.

Binding

Rebound prior to fifteenth century, when second half of contents were lost.

Brussels, Bibliothèque Royale de Belgique/Koninklijke Bibliotheek van België MS 10147-58

Theological texts; Sermon on the Song of Songs; St. Bernard, Sermon on the Pentecost and on the Saints Peter and Paul; *De angelis Sermo; de epyphania; de ortu vita et fine pyla, de veronica, et destructione iudeorum et subversione ierusalem*; Texts on the Holy Land, Letter of an archbishop A. de Nazareth; *Compendium artis picturae*; Cicero, *De amicitia*; notes on grammar, and on various religious, themes, Prophecies of Pseudo-Methode; texts regarding an ecclesiastical tribunal; Peter Abelard, *Hymnarius*
11 cm x 15.2 cm; parchment; 96 fols plus one paper flyleaf on each end, which is part of new binding

Late twelfth or early thirteenth century

Probably Liège

Contents⁶

Section I

1. (ff. 1r-8v) Theological texts and moral sentences.
Two hands, fol. 1r-3v, and fol. 3v-8v; the number of lines per page vary: 3r has 30 lines/page, while 1v has 45. One quire, is written in a single column. Pricked, some ruling visible. Dirty edges, very small, angular, hand, and faded ink. While the pages are clean, the small print and narrow margins make the text difficult to read. The parchment is thick and stiff. There are few breaks in the text and few marks. One 2-line black/brown initial, fol. 1r.
Incipit: *ex nomine domini utli (veli?) delonginquo ...*
Explicit: *die scipit (incipit?) apocalypsis.*
(fol. 1r) Seal of Bibliothèque Boulogne, Bibliothèque Royale (Brussels), and Bibliothèque Nationale (Paris).
(ff. 7r-v) Portion of page is cut out, script follows around it at edge on 7v, and thus it seems to have been cut before it was written.
(fol. 8r) Bibliothèque Royale seal

Section II

2. (ff. 9r-14v) Sermons: *ad sacerdotes* on the Song of Songs, 1, 5; S. Bernard, Sermon I, *in Pentecoste*;⁷ S. Bernard, Sermon II, *in festo SS. Petri et Pauli*.
One hand, 29 lines/page, three gatherings (II-IV). Single column, pricked and ruled. Clean pages, thinner parchment. Quires and leaves are very difficult to discern in this section. Neat, small angular hand, no initials. There is little wear on parchment, some dirt but not much oil. Edges are clean.
3. (ff. 9r-12r) Sermon *ad sacerdotes* on Song of Songs, 1, 5.⁸
4. (ff. 12r-14r) S. Bernard, *Sermon I, in Pentecoste*.⁹

⁶ See Silvestre.

⁷ PL 183, 323-26, Silvestre 101.

⁸ Silvestre 101.

5. (ff. 14r-v) S. Bernard, Sermon II, *in festo SS. Petri et Pauli*.¹⁰

Section III

6. (ff. 15r-18v) *De angelis Sermo, De epyphania*
One hand, uniform text throughout, with additional, contemporary hand in marginal notes, 27-30 lines/page. One quire (V). One column, some pricking and ruling is visible. Faded ink, angular script with high stems, marginal notes in dark brown. Parchment is relatively thick, pages show some wear and edges are dirty but not damaged. The edges of folia are closely clipped, on folio 19, for example; comments in the margins are cut very close, indicating a later trimming.
(fol. 15r) Includes space for a two line initial, never filled in. There is commentary written in a contemporary hand on the bottom, top and sideways in the side margin; according to Silvestre the upper margin commentary contains Flemish words.¹¹
7. (ff. 18r-v) *De epyphania*.
Space left for 3-line initial.

Section IV

8. (ff. 19r-26v) Texts on the saints and Holy Land, Letter from a bishop, *Compendium artis picturae*.
One hand, 57 lines/page. One quire (VI). One column, no visible ruling. Margins are extremely narrow and pages are trimmed. The parchment is heavily damaged, dirty, and water-stained (esp. 23v-24v), and the edges of the pages are also damaged and unevenly cut. Hand is extremely small, and cramped, script has short stems and is more round than angular. No division between texts, except at 24v, on the bottom of the page, *ad litteas aureas*. Red rubrics and initials throughout.
Incipit: *de ortu vita et finedyla de veronica* (rubric title)
Explicit: illegible
9. (ff. 19r-20v) *De ortu vita et fine pyla, de veronica, et destructione iudeorum et subversione ierusalem*.
Incipit: *regibus olim liberalibus eruditis in artibus accidit regem tyrum nomine ...*
(fol. 19r) Title in red ink along the top line. Follows into side margin, written after the ink. 4-line initial "R." There are underlines in the text and commentary in the margins.
(fol. 21r-23v) Text on the Holy Land. Continues the prior text in the same format, begins with one 2-line initial T.
Incipit: *terra iherusalimitana item ... penententiae ex maiors ...*
Throughout these texts a few initials are lined over (a line drawn through) in red. Initials are 3-line, red

⁹ PL 183, 323-26, Silvestre 101.

¹⁰ PL 183, 408-9 (*des. Mut. ... unde ergo lapides habet*)

¹¹ Silvestre, 101.

- (fol. 23r) Illegible due to damage. According to Silvestre damage is from “imprudent usage” of chemical “revelatory” additives.¹² This folio 23, however, is also more roughly cut than the others. This is the only folio with visible prickmarks.
10. (fol. 23v) Letter of an archbishop A. de Nazareth.
Dated after 1204 because it mentions Badouin of Flanders in the taking of Constantinople.¹³ This folio is heavily damaged, and difficult to read. Same format as above, with 62 lines/page. One 2-line initial. Incipit: *venerandis inisque duedissimis omnibus senematie ecce rectoribus archiepis.*
11. (ff. 24r-26v) *Compendium artis picturae*
Same format, 57 lines/page, narrow margin, same hand, same parchment, same quire.
- (fol. 24v) 13 red initials, 2 lines each. Large hole in page. Lots of rubbing, text is quite worn off, on the bottom right part of the page, there are three prick marks at the top of the page but only one (far left, fol. 24r) corresponds to the margin.
Single title at bottom of page, inserted above second line from the bottom reads *ad litteras aureas*. Indented, with 2-line initial and simple red delineation mark.
- (fol. 25r) Commentary on bottom of page.
- (fol. 25v) 13 lines of text are split into two columns, Heraclius *De membrana* on left, Theophilus *De membrana* on right.

Section V

12. (ff. 27r-46v) Cicero, *De amicitia*
One hand, plus one hand in notes at bottom of 46v, 27 lines/page. Three quires (VII-IX). One column, pricked and ruled, broad margins and broad script, blue and red 12-line initials. Clean and crisp pages, parchment is of a medium thickness, and pages are neatly trimmed. Marginal notes in gothic hand.
- (fol. 39) Marginal hand pointing at text: *itaque vere amicitie difficillime reperientur in iis qui in honoribus r.p. versantur^o*
Incipit: *Quinturus (quint^{9s}) mucuis augus scevola multa narrare ...*
Explicit: *de amicitia.*

Section VI

13. (ff. 47r-56v) Small notes on various religious, themes - for sermons?
One hand, with marginal notes, 30 lines/page. One quire (X). One column. Ruled, but pricking is not visible. Parchment is thick, not especially dirty. Hand is slightly later hand than other texts in this

¹² Silvestre 102.

¹³ See Roehricht for published letter. However, author argues that the Archbishop can't be identified, and also questions its authenticity. Reinhold Röhrich, *Die Deutschen im Heiligen Lande : chronologisches Verzeichnis derjenigen Deutschen, welche als Jerusalempilger und Kreuzfahrer sicher nachzuweisen oder wahrscheinlich anzusehen sind (c. 650-1291)*. Innsbruck: Wagner 1894.

volume, more gothic, straight up and down and crowded. Lots of marginal and indexical notes.

Two inserted horizontal pages at ff. 53, 50.

Incipit: *Titulus pilati sapientiae*¹⁴ *liber ymnor*

(fol. 47v)

Grammatical notes

(fol. 47r)

2-line initial *T* in red

Section VII

14. (ff. 57r-64v)

Prophecies of Pseudo-Methode

One hand, with marginal notes, 25 lines/page. One quire (XI). Pricked, but ruling is not visible. Roughly cut pages with jagged, damaged edges, dirty and brown pages. Very thick parchment, some marginal indexical marks. Crowded, broad hand, later script than other texts.

Incipit (57v): *In xpi noie incipit libe be methodi epi eccle paterenis et martyris*

Explicit: *y regnat ... seculorum amen*

(fol. 57r)

Fragments of notes on music

(fol. 57v)

7-line initial *I* with ornamental decoration

Section VIII

15. (ff. 65r-80v)

Pleas from an ecclesiastical tribunal. One hand, with marginal notes at bottom of the page in different, but contemporary hand, 24 lines/page. 2 quires (XII-XIII). One column. Pricked and ruled. Round, neat hand, earlier script. Parchment is yellowed on first and last folia (65r, 80v) and but inside it is fairly clean, indicating it was probably kept as a pamphlet at some point. A few indexical marks and some marginal notes in a hand of a similar period.

Incipit: *diliget examinador causarii gue(?) sublimis ...*

Explicit: *Dns epc dignum duxit fili dictaret vernas.*

(ff. 73v-74r)

Marginal notes, listing 23 kings and emperors, Charlemagne to Phillip of Swabia.

(ff. 75v-76v)

Marginal notes on the management of property f St. Laurent de Liege

Section IX

16. (ff. 81r-96v)

Peter Abelard, *Hymnarius*

One hand, 29 lines/page. Two quires (XIV-XV). One column. some water damage, relatively clean. Worn, rough pages, parchment is quite thin, but not very polished. Hair side particularly is very rough. Hand is a little later, it is angular and tall, the page is very full but very neat. no marginal notes. 2-line red initials throughout.

Incipit: *ad tuarum precum instantia soror ~ heloysa ...*

Explicit: *peccatis beate sollentia pecitores maxime lensicat*

(fol. 81r)

6-line red initial *A*.

¹⁴ *Sap* with upper line, according to Capelli is *sapientiae*, but again he dates it to the 14th c.

General Description

Parchment, prickings and rulings vary throughout the nine sections; multiple hands.

Collation

I⁸ || II- IV² || V⁴ || VI⁸ || VII⁸ , VIII - IX⁶ || X¹⁰ || XI⁸ || XII-XIII⁸ || XIV-XV⁸

Decoration

- (fol. 15r, 18r) Space left by scribe for 3-line initials
- (fol. 19r) 4-line red initial R
- (ff. 21-23v) 2 and 3-line initials, red
- (fol. 24v) thirteen 2-line, red initials
- (fol. 47r) 2-line initial, red
- (fol. 57r) 7-line initial, red, with ornamental decoration, musical notation
- (fol. 81r) 6-line initial A

Comments

The volume appears to be a later collation; edges are uneven and some sections show substantial dirt on what would be their outside pages. Divisions between sections are clear, as format, parchment, hands, are distinct. Most of the water damage to the manuscript occurred prior to 1982 binding, but after it was collated as it is now. Water stains run across the middle of the manuscript, along the bottom edge and bottom right.

Provenance

Probably written in Liège, contains seals of Bibliothèque de Boulogne and Bibliothèque Nationale de France (fol. 1r). The manuscript seems to have been in the Brussels library by 1839, as it is included in an inventory written by J. Marchal of that year as referred to by Silvestre.

Bibliography

Silvestre, *Le Ms Bruxellensis 10147-58*, 95-140.

Dodwell, *De diversis artibus*, lxx-lxx.

Binding

Modern binding; white leather with metal clasp, signed by M. Marchoul, 1982 on last verso flyleaf of new binding. Pasted to the inside of the back cover is the spine of the older binding, which reads, "*Vita pilati, Cicero de amicitia &c, xii s.*"

Leipzig, Universitätsbibliothek MS 1157

Jacobus Alchindus, *Liber de gradibus medicinarum*; Albertus Magnus, *De mineralibus*; Theophilus, *De diversis artibus*; Commentary on Aristotle; Egidius, *Liber metricus de pulsibus*; Galen, *Libri di crisi*.

31 x 24 cm; parchment; 72 fols.

Early fourteenth century

Saxony, probably Altzelle

Section I

1. (ff. 1r-3v) Alchindus, *Liber de gradibus medicinarum*
(fol. 1r) inscription: *frater rudolfi de pritten*
Title: *incipit liber iacobi alchindi de gradibus medicinarum*
(fol. 3v) *explicit liber alchindi de gradibus compositorum medicarum.*

Section II

2. (ff. 4r-17v) Albertus Magnus, *De mineralibus*
(fol. 4r) Red reader's tab
(fol. 17r) Reader's tab
explicit liber mineralium fratris Alberti bone memoriae episcopi ratisbonensis.
3. (ff. 17v-22v) Theophilus, *De diversis artibus*
(ff. 17v-18r) Prologue I
(fol. 18r) Capitula, Book I
(fol. 18r-20r) Book I
(fol. 20r) Prologue II, Capitula, Book II
(ff. 20r-22r) Book II
(fol. 20v) Insertion in marginal note, laments missing chapters: *hic deficit subtilior pars et melior et utilior totius libri pro quia si quidem haberent darem mille florenos.*
(fol. 22r) Prologue III
(ff. 22r-22v) Book III, no Capitula, unnumbered chapters
(fol. 22r) *De limis*
De temperamento limarum
Item unde supra
*De vasculis ad usque faciendum aurum et argentum*¹⁵
(fol. 22v) *De nigello*
De imponendo nigello
Item de imponendo nigello
*De poliendo nigello*¹⁶
Explicit: ... donec omnino clarum fiat.

¹⁵ Theophilus, Book III, ch. xvii, "Files;" Dodwell, *DDA*, as ch. 1 note 3: 72; ch. xviii, "The tempering of files," 72; ch. xix, "The same as above," 73; ch. xii, "Crucibles for melting gold and silver," 74.

¹⁶ Theophilus, Book III, ch. xxviii, "Niello;" Dodwell, *DDA*, as ch. 1 note 3: 80; ch. xxviii, "Applying the niello," 81; ch. xxxii, "Applying the niello," 84; ch. xli, "Polishing the niello," 92.

Bottom third of left column is blank, as is right column. There is neither an 'explicit liber' nor a catchword.

4. (ff. 23r-41v) *Quaestiones super libros Meteororum Aristotelis*
Incipit: *Incipiunt quaestiones super liborum methaoroum Aeristotelis phil. ...*
(fol. 41v) Pages cut out, no explicit, perhaps unfinished?

Section III

5. (ff. 42r-50v) Egidius, *Liber metricus de pulsibus*
6. (ff. 50v-54v) Galen, *Libri di crisi*

Section IV

7. (ff. 55r-72r) Galen, *Libri di crisi*
(fol. 55r) New hand, *incipit liber Galieni*
(fol. 72r) Seal of Universitätsbibliothek, Leipzig
explicit liber is crossed out, and bottom part of page is cut
7. (fol. 72v) Blank

General Description

Large, fine volume, clean parchment, extensive burn damage to lower right edge of the whole volume and to the cover. Some mold. Pricked and ruled, two columns, catchwords throughout. Four hands. The manuscript can be divided into four sections, each beginning a new text and new gathering: I (ff. 1r-3v); II (ff. 4r-41v); III (ff. 42r-54v); IV (ff. 55r-72r). There are slight changes in format: section II has labels in the upper margin marking the number of the book of Theophilus (*liber I, liber II, liber III*); section II is also the neatest, and contains the most ornate decorations. Sections I and IV with Alchindus and Galen are the messiest.

Section I (ff. 1r-3v): 70 lines per page; cramped angular script; 3-line red and blue initials throughout. Columns and tables in text; rubricated, some marginal notes.

Section II (ff. 4r-41v): 59 lines per page; new hand (hand 2), with small, round, neat script and large section titles; wide margins, polished, clean parchment, red and blue initials, pricked and ruled, column headings; fol. 14r is insert.

Section III (ff. 42r-54v): 59 lines per page, similar format to section II; new hand (hand 3), smaller initials, but decoration is consistent. This section includes a mini-gathering of three folia (ff. 52r-54v) which there are stubs from three cut pages visible between fols. 54v and 55r.

Section IV (ff. 55r-72v): 48 lines per page, ruling matches section I; new hand (hand 4), and messier, gothic, pointy script. Some small initials of 6-line but only one (fol. 55r) with long flourish as others in manuscript.

Collation

I³ || II¹⁰, III⁸⁺¹, IV⁸, V¹⁰⁺¹ || VI¹⁰, VII³ || VIII⁸, IX¹⁰

Decoration:

Alchindi:

(fol. 1r) 4-line initial *Q*, with 20-line tail descending in margin, red and blue.

Albertus Magnus:

(fol. 4r) Large, 12-line initial *D*, filling nearly the entirety of the left margin. Red and blue, filled with a delicate line pattern, scrolls, and blue dots.

(ff. 5v-17r) 3-line initials in red and blue with long flourishes, 6-line initials to mark titles.

(fol. 7r) Large, 12-line initial *C*, in red and blue, with full-page flourish.

(fol. 12r) Large, 11-line initial *T*, in red and blue, with flourish.

(fol. 15r) Large, 11-line initial *N*, in red and blue.

(fol. 17r) Large, 13-line initial *S*, in red and blue.

Theophilus:

(ff. 17v-22v) 3-line initials throughout, rubricated, with paragraph markers in red and blue.

(fol. 17v) 13-line initial *T*, in red and blue, with full-page flourish, marks beginning of Prologue I of Theophilus: *Theophilus, humilis presbyter...*

(fol. 20r) 23-line initial *I*, in red and blue, with large flourish in margin, marks beginning of Prologue II of Theophilus: *in praecedenti libello...*

(fol. 22r) 13-line initial *E*, in red and blue, marks beginning of Prologue III of Theophilus: *eximus prophetarum David...*

Aristotle:

(fol. 23r) 7-line initial *C*, in red and blue, start of *liber I*, commentary on Aristotle.

(fol. 30r) 7-line initial *D*, in red and blue, start of *liber II*, commentary on Aristotle.

(fol. 34r) 7-line initial *P*, in red and blue, start of *liber III*, commentary on Aristotle.

(fol. 38v) 7-line initial *Q*, in red and blue, start of *liber IV*, commentary on Aristotle.

Egidius:

(fol. 42r) 7-line initial *Q*, in red and blue, start of *de pulsibus*.

Galen:

(fol. 50v) 7-line initial *F*, in red and blue, start of Galen, *libri di crisi*.

(fol. 53v) 7-line initial *N*, in red and blue, Galen, *libri di crisi*.

(fol. 55r) 7-line initial *E*, with long flourish.

(fol. 60r) Diagram.

Comments

There is a distinct difference between section I and sections II-IV; the illuminations match but the format of section I differs, although in the rest of the book it is very consistent. Overall pages are relatively clean and parchment is fine. Theophilus' text in particular is written on clean parchment and there are no marginal notes or signs of studio use.

Provenance

Probably illuminated at the abbey of Alzelle, then owned by Canon of St. Anthony Rudolfi di Pritten in late middle ages, and perhaps given new cover around this time at the Dominican cloister of Leipzig. Transferred to library at Leipzig in early sixteenth century, probably in the 1530s, at the dissolution of the Cloister of Lichteberg.

Bibliography

Johnson, "The Manuscripts of Theophilus Presbyter," 94.

Thompson, "The *Schedula* of Theophilus Presbyter," 217-219.

Lessing, Ilg, and Theobald drew on the Leipzig manuscript for their editions of the text.

Binding

Paper pasted into inside of front cover contains writing in a sixteenth century hand, and another, earlier hand. Wooden cover, bound in leather, with beveled edges, typical of Dominican abbey in Leipzig, probably fifteenth century.¹⁷

¹⁷ Christoph Mackert, Universitätsbibliothek Leipzig.

London, British Library Egerton MS 840a

Theophilus, *De diversis artibus*; *Mappae clavicula*; Heraclius, *De coloribus et artibus romanorum*.

140 x 95 mm; parchment; 25ff.

first half, 13th c.

English

1. (ff. 1r-3r)
2. (ff. 3v-5r) Blank
(ff. 4v-5r)
3. (ff. 6r-16v) Theophilus, *De diversis artibus*
(fol. 6r) Incipit: *Hic incipit tractatus Lumbardicus: Qualiter temperantur colores ad depingendum.*
Hexameters, most often found in *Mappae clavicula*:¹⁸
Sensim per partes discutur quaelibet artes.
Artis pictorum prior est factura colorum.
Post ad mixturas committat mens tua curas.
Hoc opus exerce, sed ad unguem cuncta coherce,
Ut sit adornatum quod pinxeris et quasi natum.
Postea multorum documentis ingeniorum.
Ars opus augebit, sicut liber iste docebit.
(ff. 6r-7r) Prologue, Book I
Incipit: *incipit praefactio in libro Teophili admirabilis et doctissimi magistri de omni scientia artis pingendi*
(ff. 7r-7v) Capitula, Book I
(ff. 7v-16v) Book I, ch. i-xxx
(ff. 16v) Five excerpts from the *Mappae clavicula*, written continuously with Theophilus
(ff. 16v-20r) Heraclius, *De coloribus et artibus romanorum*
incipit: *incipit liber eraclii sapientissimi*
(fol. 25v) Blank
Library seal

Description

Small square volume, parchment, pricked and ruled, 29 lines per page, rubricated, one hand.

Collation

I⁸ (1r-8v), II⁸ (9r-16v), III⁸ (17r-25v)

Decoration

- (fol. 19r) Decorated initial *I*, *incipit liber II de colore...*
- (fol. 20r) light red drawing of a dog, whose tail marks out section of text.

¹⁸ Dodwell, *DDA*, as ch. 1 note 3: lxvii-lxviii; Johnson, "The Manuscripts of Theophilus," 87.

Comments

Format of manuscript is consistent throughout; single column. Fols. 1r-5v have been remounted on new backing.

Provenance

Formerly Cambridge, Trinity College MS R 15 5, where it was bound with *De constructione et usu sphaerae et astrolabii*.

Bibliography

Dodwell, *De diversis artibus*, lxvii-lxviii.

Eastlake, *Materials for a History of Painting in Oil*, 33.

Johnson, "The manuscripts of Theophilus Presbyter," 93-94.

Madden, *List of additions to the manuscripts in the British Museum* VI, 18 (add. of 1840).

Merrifield, *Original Treatises*, 166.

Raspe, *A Critical Essay on Oil-painting*.

Singer, *Catalogue of Latin and Vernacular Alchemical Manuscripts*, II, 589-592: no. 867 iv; 593-594: no. 872; 594-596: no. 873 ii; 596: no. 874.

Thompson, "Schedula," 201, 216-217.

Watson, "A St. Augustine's Abbey, Canterbury, manuscript reconstructed."

Winstanley, "Halliwell Phillipps and Trinity College Library."

Paris, Bibliothèque Nationale de France, MS nouv. acq. lat. 1422

Nicholas of Cusa, mathematical treatise; Vitruvius, *De architectura*; Theophilus, *De diversis artibus*

265 x 185 mm; paper; 141 ff.

Fifteenth century

Northern Germany

1. (ff. 1r-6r) Nicholas of Cusa, mathematical treatise
incipit: *scripseram proxime de mathematicis...*
(fol. 6v) Blank
2. (ff. 7r-94r) Vitruvius, *de architectura*
incipit: *cum divina tua mens et numen imperator Caesar...*
3. (ff. 94v-141r) Theophilus, *de diversis artibus*
incipit: *Theophilus humilis presbiter servuus servorum dei...*
(ff. 94v-95v) Prologue I
(fol. 95v) Capitula, Book I
(ff. 96r-104r) Book I
ch. i – xxxvii (*de cerosa et minio*)
explicit: *...donec minium omnino rubeum fiat.*
(ff. 104r-104v) Prologue II
(fol. 104v) Capitula, Book II
(ff. 104v-112r) Book II
ch. i-xxxii (*de anulis*)
explicit: *ut adhearat.*
(ff. 112r-113r) Prologue III
(ff. 113r-v) Capitula, Book III
(ff. 113v-141v) Book III
ch. i – lxxviii (*de purganda antiqua deauratura*)
explicit: *sicut placuerit oculis tuis. Deo Gratias.*

Description

Paper, two hands, red initials, first section has space left for initials never filled in.

Section 1 (ff. 1r-6r): one column, 51 lines per page, one hand.

Section 2 (ff. 7r-141v): two columns, 36-39 lines per page, one hand.

Collation

I⁶⁻¹, II¹²- XIII⁴

Decoration

- | | |
|-----------|--------------------------------|
| (fol. 1r) | 5-line initial <i>S</i> , red. |
| (fol. 1v) | 5-line initial <i>T</i> , red. |
| (fol. 7r) | 7-line initial <i>C</i> , red. |

(fol. 94v-141r) 5-line initials in red, to mark out sections of text.

(fol. 141v) Seal, Bibliothèque Nationale Manuscrits Royale de France.
Seal, Bibliothèque Imperiale.

Comments

According to Dodwell, text is closely related to Wolfenbüttel Cod. Guelph Gud. lat. 2°69. I agree: both contain Vitruvius alongside Theophilus, and are visually similar as well. Like G, Paris 1422 is written in two columns and the script is a round, archaizing style of script; red initials are written in a Romanesque style. Like G and V, Paris 1422 also ends book one at chapter xxxvii, *de ceroso et minio*, omitting ch. xxxviii, *de incausto*. Overall it is a clean text, there is some dirt on the pages, but there are no diagrams or drawings. There is some water damage on the pages at the end of the volume, along the top of fol. 216ff and the bottom and sides of fol. 138ff. Most striking about the manuscript is how closely it copies G in content and style.

Bibliography

Bidez, et al. eds., *Catalogue des manuscrits alchimiques latins*, 219-220.

Delisle, *Bibliothèque Nationale, Manuscrits Latin et Français* 2, 667.

Dodwell, *De diversis artibus*, lviii.

Johnson, "The Manuscripts of Theophilus Presbyter," 97-98.

Binding

Leather cover.

London, British Library Sloane MS 781

Theophilus, *De diversis artibus*

200 x 155 mm; paper; 19 fols. one fly leaf

Seventeenth century

England, copy of Cambridge 1131, by Sir Humphrey Wanley

1. Theophilus, *De diversis artibus*

(fol. 1r) Title page:
*Theophilus Monachus de diversis artibus, Humphredus Wanley
descripsit e codice MS Bibliothecae Publicae Cantabrigiensis, ad
1699*

In a later hand:

“A more perfect copy of this work, containing three books is in MS
Harley 3915, written in the thirteenth century – J. M.”

“The first book was printed by Raspe, in 1781 and the whole work,
accompanied by a French translation, has appeared at Paris (...?) 1863.
Edited by M. le Cte de l’Escalopier, but there are several chapters in
the second part of this ms which do not appear in the edition. MS
Sloane 781”

- (fol. 1v) Blank
- (ff. 2r-3r) Prologue Book I
Title: *Prologus primi libri Theophili monachi presbiteri de diversis
artibus*
In primis de coloribus
Incipit: *Theophilus humilis presbyter... praemi...*
- (ff. 3r-12r) Book I (no capitula)
- (fol. 12r) *explicit liber de coloribus*
in margin, in parentheses, in later hand: (*incipit liber de diversis
artibus*) and note in pencil, “Ms Harl. iii. 77. es. lib. 3. c. 78.”
- (ff. 12r-19r) Excerpts, Book III
- (fol. 14r) Chapters from the *Mappae clavicula*
auri solucio
- (fol. 14v) *aureas litteras scribere, aliter (auripigmenti coloris...); aliter (sumens
stannum...); auri inscripcio italica*
- (fol. 15r) *Aliter (sumis suream laminam...); aliter (plumbum conflas
frequenter...); untitled (sanguino draconis...); aliter (sumis
stannum...); auri inscripcio sin auro...*
- (fol. 15v) *auri solucio ad picturam; aurum viridis; untitled (si velis deaurare
sive argentum...); untitled (in vas aureo nigrum...);*
- (fol. 16r) *de aurato facilis, untitled (sumis aurum...); alia nunc probata nostris
temporique (sumis vas vitreum solidum...); aliter (plumbum sapiens
liquefacis...)*

- (fol. 16v) *argenti litteris scribere...; liquidi argenti confacio...; argenti inscripcio italica; aliter (sumis laminis argenteas...); aliter (ut perserveret scriptura...); ad viridem colorem; indicum colorem facere; untitled (si mere vel lapido vel ligno...); untitled (accipis cuprum...)*
- (fol. 17r) *viridi color primum...* (underlined)
Hexameters (as in Egerton 840a, Paris 1422): *sensim per partes... liber iste docebit.*
Pencil note here remarks on correspondence of these latter chapters to *Mappae clavicula*, as found in Phillipps Library MS 3715.
- (fol. 17v) on *vermiculum, axorium, viridis graecum*
- (fol. 18r) on *viridis, rubeum*
- (fol. 18v) *item misces folium...*
- (fol. 19r) *si vis scribere de auro*
...huc usque codex ms catabrigensis
- (fol. 19v) blank
- (fol. 20r-v) flyleaf

Description

Paper, margins ruled, trimmed, 24 lines per page, one column, one hand, with later marginal notes that refer to Harley manuscript. Paginated and foliated.

Collation

I-V⁴

Decoration

None.

Comments

The manuscript is a copy of Cambridge E e. 6 39 made by Sir Humphrey Wanley, and is one of a few medieval manuscripts which he copied in the late seventeenth century as part of his study of manuscripts. Later Wanley became an assistant to Lord Harley, whom he helped in the purchase and research of books and manuscripts. His interest in the manuscript may have been technical or historical, but it is significant for the history of Theophilus that Wanley kept this manuscript as a part of his own personal collection; an inscription on folio 1r labels the manuscript as MS 106, which may have been the number given it by Wanley. Though written in one hand, there are corrections in ink made throughout the text, which may have been made by Wanley, and later comments made in pencil in the margins that note the discrepancies between this copy and Harley 3915, and the correspondences of the latter section of the manuscript with Phillips MS 3715 and the *Mappae clavicula*. From these notes it appears that the copy was used as a working text for research into the relations between extant manuscripts and between Theophilus and the *Mappae clavicula*.

Provenance

Collection of Humphrey Wanley. The manuscript was formerly bound with Sloane MS 715, the former folio numbers (ff. 171r-210v) remain visible.¹⁹

Bibliography

Catalogus Librorum Manuscriptorum Bibliothecae Sloaniannae, I, 145, no. 781.

Dodwell, *De diversis artibus*, lxvi.

Johnson, "The Manuscripts of Theophilus Presbyter," 100.

Singer, *Alchemical Manuscripts* II, 594-596: no. 873 i.

Thompson, *Schedula*, 216.

Binding

Modern, rebound after separation from London, BL Sloane MS 715.

¹⁹ See Thompson, 216.

London, British Library Sloane MS 1754

Medical texts, especially on quality of water and remedies; Brother Nicholas of Poland and Monte Pessulano; remedies of Master Bernard of Gordon, Professor Medicine at Monte Pessulano; lapidary; letters of Avicenna; alchemical texts; Aristotle, on chemistry; *Liber de coloribus illuminatoris seu pictoris*; alchemical excerpts.

195 x 130 mm, parchment, 214 fols.

Fourteenth century

French (?)

Contents²⁰

1. (fol. 1r) Table of Contents
2. (ff. 1v- 27r) Medical texts, *medicina mirabilis*
pricked and ruled, one hand, some marginal notes, 33 lines per page, small red initials.
3. (fol. 27v) blank
4. (ff. 28r-47v) *Experimenta fratris nicholai medici de Polonia qui fuit in monte pessulano*
same hand, pricked and ruled, 33 lines per page, small red initials
5. (ff. 48r-59v) *Incipit speculum secretorum alkimia*
new hand, pricked and ruled, 36 lines per page
6. (ff. 59v-62r) *compositio Bonatis*
first hand, 33 lines per page, pricked and ruled, rubricated, small red initials
7. (ff. 62v-83v) *Mendacium primum Rogeri*
same hand, same format
8. (ff. 84r-94r) *Liber archellei phisici*
9. (ff. 95r-112r) *Liber perfecti magistri Aristotelis*
10. (ff. 112r-136v) *Liber Rhasis (?) de 12 aquis preciosis*
11. (ff. 114r-136v) *Liber Rasi Ebobocri*
12. (fol. 137r-v) *Opus ovorum certissimum et verum sine mendacio*
13. (fol. 138r-142r) *Chemica varia*
14. (fol. 142v-149r) *Liber de coloribus illuminatorum sive pictorum*

²⁰ The contents are difficult to identify; see British Library, Catalogue, Sloane 1754.

incipit liber de coloribus illuminatorum seu pictoris
explicit: ...cum auro soluto et poteris de auro scribere sicut de alio
colore.

15. (ff. 149v-151r) *Liber e tincturis pannorum*
16. (ff. 151v-186r) Alchemical texts, two in french (ff. 152r, 153r-166r)
17. (ff. 186v-193r) Avicenna
18. (ff. 193b-196r) *Liber de secretis naturae*
19. (ff. 197r-200r) Chemical experiments
20. (ff. 201r-203r) Alchemical texts
21. (ff. 204r-v) Treatise on colors, in French
22. (ff. 205r-218r) Chemical texts, alchemical texts
23. (ff. 218v-220r) *Sinonoma in Alkemia*
24. (fol. 221r) *Elixir optimum ad lunam et ad solem*
New hand
25. (ff. 222r-231r) Chemical experiments
26. (ff. 231v-233r) *Compositiones diversorum ignium*
27. (ff. 234r-238r) Mixtures of colors
28. (ff. 239r-241r) Blank, with notes

Collation

I⁶⁺², II-III⁸, IV¹⁰⁻¹, V¹⁰⁻², V¹²⁺¹, VI¹⁰, VII¹⁴, VIII¹⁶, IX¹⁴, X⁸, XI¹⁰, XII-XVIII¹², XIX⁸⁻²,
XX¹², XX⁸

Decoration

Small red initials throughout. Some rubrication.

Comments

Parchment, pricked and ruled. For a collection of texts, it is fairly uniform throughout, and the section with excerpts from *On Diverse Arts* is written all in one hand. The parchment is oily and yellowed. There are 33 lines per page, all in a single column.

Provenance

Unknown. Probably French.

Bibliography

Ayscough, S. *A Catalogue of the [Sloane MSS] Preserved in the British Museum*, I, no. 1754.

Johnson, "The Manuscripts of Theophilus Presbyter," 94-95.

Singer, *Alchemical Manuscripts II*, 600: no. 885a; 602: no. 892; 603: no. 895 i; 607: nos. 906, 907, 908; 608: no. 909

Thompson, "*Liber de Coloribus Illuminatorum Siue Pictorum* from Sloane Ms. No. 1754," *Speculum* 1, no. 3 (1926): 280-307.

Thompson, "*Liber de Coloribus: Addenda and Corrigenda*," *Speculum* 1, no. 4 (Oct. 1926): 448-450.

Binding

Modern binding.

Oxford, Magdalen College MS 173

Medical texts; Johannes Platearius, *De causis...*; Maurus of Salerno, *De urinis*; anonymous book of cures; Constantine the African, *De urinis*, *De oculis*; *Tractatus de arte pingendi*; Constantine the African, *Liber de melancolia*; *De substantia urine*; *De crisi*; *De unguenta ad morbos varios*; of medicines and treatments; Trotula, *Liber de morbis mulierum*; *Liber de ornatu mulierum*; *Tractatus de saporibus juxta Constantinum*; Peter of Spain, *Liber Oculorum*.

165 x 120 mm, parchment, 264 fols.

Fourteenth century

Contents²¹

Section A

1. (ff. 1r-2v) Unidentified prayer

Section B

2. (ff. 3r- 32v) *de modis medendi*

Section C

3. (ff. 33r-78v) Johannes Platearius, *de causis, significationibus et curis aegritudinum, cum praefatione*.

Section D

4. (ff. 79r-95v) Maurus of Salerno, *de urinis*

Section E

5. (ff. 96r-140v) Anonymous, *de febris et morbis, et curationibus eorumdem*

Section F

6. (ff. 141r-163r) Constantine the African, *de urinis*

7. (ff. 163v-189v) Constantine the African, *de oculis*

8. (ff. 189v-201r) *Tractatus de arte pingendi*
Includes hexameters as incipit:
Sensim per partes discutuntur quaelibet artes
...sicut liber iste docebit.

(ff. 190r-196v) Excerpts, *Mappae clavicula*²²

(ff. 196v-201r) Excerpts, Theophilus, Book I

(fol. 201r) *explicit ars pigendi*

²¹ The texts are difficult to distinguish; see Coxe, *Catalogus*, 79-80.

²² Identified by Johnson, 96.

8. (ff. 201v-214v) Constantine the African, *Liber de melancholia*
9. (ff. 215r-219r) *de urinis tractatulus*
10. (ff. 219v-220v) *De crisi*
11. (ff. 221r-223r) *Unguenta ad morbos varios*
12. (ff. 223v-226v) Medical treatments
13. (ff. 227r-232r) *Medicinae contra morbos varios*
14. (ff. 232v-236r) *De conferentibus et nocentibus*
15. (ff. 236v-238v) *Versus de signis morborum variis*
16. (ff. 239r-246r) *Tabulae medicinarum Salernitanaei duodecim*
17. (ff. 246v-252v) *Trotulae liber de morbis mulierum*
18. (ff. 253r-256r) *Liber de ornatu mulierum*
19. (ff. 256v-158v) *Tractatus de saproibus juxta Constantinum*
20. (ff. 259r- 264r) Peter of Spain, *Liber oculorum*

Description

Very fine, clean, parchment, pricked and ruled throughout except for fols. 1r-2v. These are in the first gathering, which may be a later insert. There are 27-33 lines per page, in a single column, except for gathering X-XI which is in double columns (ff. 79r-95v). Catchwords mark the end of gatherings, and a catchword on last folio suggests the manuscript at one point continued. Written by four hands, which change at gathering breaks: I (fol. 2v), III (fol. 32v), IX (fol. 95v). The format is consistent across the manuscript, there are rubrications throughout, and sections mark clear breaks in the text.

Collation

I² || II¹⁶, III¹⁴ || IV-IX⁸ || X⁸, XI⁸⁺¹ || XII-XIV¹², XV¹⁰ || XVI¹⁶, XVII¹⁸, XVIII¹⁶, XIX¹⁸, XX¹⁶, XXI-XXII¹⁴, XXIII¹²

Decoration

Small blue and red ornamented initials throughout.

Comments

The manuscript as a whole is very neat, and uniform in format. The parchment is fine and clean. There are some notes in the margins. Collation marks and subject headings occur throughout the book, though they are slightly later, and may date to the rebinding of the

text. Treatise on painting is part of last section of text, begins on last folio of gathering XVIII and ends half-way through gathering XIX.

Provenance

Unknown.

Bibliography

Coxe, *Catalogus codicum manuseriptorum* II, Collegii B. Mariae Magdalenae, 173, 79-80.

Dodwell, *De diversis artibus*, lxi

Johnson, "The Manuscripts of Theophilus Presbyter," 86-88, 96.

Singer, *Catalogue of Latin and Vernacular Alchemical Manuscripts*, no. 867 x.

Binding

Rebound.

London, British Library Harley MS 273

Calendar; Notation of indulgences; Psalter; Bestiary; text of Robert Grosseteste; Charms; histories of Charlemagne and the church fathers; mediations; *Manuale peccatorum*; Romance; *Modus preparandi colores diversos*; charms and incantations.
220 x 145 mm; parchment; 218 fols.

Fourteenth century

French

Contents²³

1. (ff. 1r-6v)	Calendar
2. (ff. 7r-v)	Text on indulgences and confessions
3. (ff. 8r-52v)	Psalter
4. (ff. 53r-69v)	Canticles, religious texts, <i>oratio dominica</i>
5. (ff. 70r-81r)	<i>Bestiaire d'Amours</i>
6. (ff. 81r-84v)	Reules de Robert Grosseteste
7. (ff. 85r-85v)	<i>de vero amore comparando. Gallice.</i> Charms.
8. (ff. 86r-102v)	History of Charlemagne
9. (ff. 103r-110r)	Statements of the Church fathers
10. (ff. 110v-112v)	<i>Meditatio nocturna per manum sinistram</i> <i>Meditatio diurna per manum dexteram</i>
11. (ff. 112v)	Seven gifts of the Holy Spirit
12. (ff. 112v)	Charms
13. (ff. 113r-198r)	<i>Manuel des pechiers</i>
(fol. 198r-v)	Ruled as prior page, but blank; 198v has a fragment of text
14. (ff. 199r-203v)	Romance, <i>La pleynte d'Amour</i> , three columns
(fol. 204v)	Blank
15. (ff. 205r-208v)	Prayers
16. (ff. 209r-212r)	<i>Modus praeparandi Colores diversos</i>
17. (ff. 212v-215r)	Charms, prayers and canticles for saints
18. (ff. 215r-415r)	Collection of texts on agriculture, land management
(fol. 217r)	Blank, thick parchment
(fol. 218v)	List of contents

Description

Fine clean parchment, but thick, pricked and ruled throughout, 30-39 lines per page, multiple hands, mostly two columns. Small initials up to folio 185r, then none.

Decoration

(fol. 8r)	5-line red and blue initial with patterned ornament.
(ff. 70r-81r)	Line drawings, diagrams.
(fol. 70r)	4 Drawings of learning and teaching: man and woman; teacher with students; a monk writing, and the presentation of a book to a lady.

²³ The texts are difficult to distinguish and identify. I follow here the Catalogue of the Harleian Collection, 142-143.

(ff. 81r-85v)	3-line initials, red.
(ff. 86r-110r)	Blue and red initials throughout.
(fol. 111r)	hand diagram (left), full page, red and brown.
(fol. 111v)	hand diagram (right), full page, red and brown.
(fol. 113r)	3-line blue initial.
(ff. 113r-181r)	red and blue section markers.

Comments

The manuscript is fairly uniform; the list of contents on folio 218v suggests it was long a single volume.

Provenance

Unknown.

Bibliography

Johnson, "The Manuscripts of Theophilus Presbyter," 95.

Singer, *Catalogue of Latin and Vernacular Alchemical Manuscripts II*, 607, no. 907.

Wolfenbüttel, Herzog-August Bibliothek, Guelph Helmst. 1127 (MS Lat. 1234)

Johannes de Monte Regio (?), *Calendarium*; *De horologiis inter invicem faciendis* and *De compositione quadrantis tractatus*; *De constitutione artificiosa baculi Iacob*; *De confectione virge visoris*; Johannes de Monte Regio (?), *De compositione astrolabii tractatus*; *Declaratio priorum canonum et utilitatum astrolabii*; Theophilus Presbyter, *De diversis artibus*.

160 x 115 mm; paper; 114fols.

Second half, fifteenth century

Probably Koenigsberg, Franconia, possibly written by Johannes de Monte Regio.

Contents

1. (ff. 1r-1v): Reused flyleaf with fragment of a drawn circles on each sheet
(fol. 2r): Blank
(fol. 2v): Calendar diagram
(fol. 3r): Blank
2. (ff. 3v-30v): Iohannis Mulleri Regiomontani, *Calendarium*.
(ff. 31r-v): Blank
(ff. 32r-v): Sundial drawing, calendar diagram
3. (ff. 33r-44r): *De horologiis inter invicem faciendis* (Iohannis Regiomontani?), includes diagrams (ff. 33r-36r, 41v-42v)
(ff. 36v): Blank
(ff. 44v-45v): Blank
(ff. 46r-46v): Calendar and table
4. (ff. 47r-54r): *De compositione quadrantis tractatus* (Iohannis Regiomontani?), red initials
(ff. 54v-57v): Blank
5. (fol. 58r): *De constitutione artificiosa baculi Iacob*
(ff. 58v-59v): Blank
6. (ff. 60r-64r): *De confectione virge visorie*
(fol. 63v): Blank
(ff. 64v-68v): Blank
7. (ff. 69r-81r): *De compositione astrolabii tractatus* (Iohannis Regiomontani?), includes diagrams (73v-74r, 75r, 77r)
(fol. 71r): Blank
(fol. 78r): Blank
(fol. 79r): Blank
(fol. 80r): Blank
(81v): Blank
8. (ff. 82r-94v): *Declaratio priorum canonum et utilitatum astrolabii*
(ff. 95r-101v): Blank
9. (ff. 102r-114r): Theophilus presbyteri, *diversarum artium schedula vel potius excerpta ex hoc opere*. Red initials and underlines.
(fol. 102r) Incipit: *Nortungus humilis Theophilus nomine et professione monastica indignus Gersico fratri suo dilecto, omnibus mentis desidiam animique vacationem utili manuum occupatione et*

delectabili novitatum meditatione declinare et calcare ob retributionem celestis premii. Legimus...

- (ff. 102r-102v): Prologue I
(fol. 102v): *Sensim per partes discuntur quaelibet artes ...sicut liber iste docebit.*
- (ff. 102v-107r): Book I: ch. i-xxix
(ff. 107v): De basilico faciendo
(ff. 107v- 108r): Book III, ch. xlvi-xlix (*de auro terrae evilat, de auro arabico, de auro hispanico, de alio modo auro arenario*)
- (ff. 108r): Book I, xxx: *quomodo decoretur pictura librorum stagno et croco;*
(ff. 108v): xxxi: *de omni genere glutinis in pictura auri*, xxxii: *quomodo colores in libris temperentur.*
- (ff. 109r-114r): Extrapolated chapters of Book I, II and Mappae Clavicula, no discernible order or delineation between them.
- (ff. 114v-115v): Blank

Description

Paper, one column, pricked and ruled. One hand throughout. There are 43 lines per page, with rubrics and underlining in text, small initials, and drawings for calendar and mathematical pages.

Collation

I¹⁵, II¹⁶, III¹⁴, IV¹², V¹⁰, VI¹⁴, VII¹⁰, VIII⁸, IX¹⁶

Decoration

Two line red initials throughout, numerous diagrams in text, especially on fols. 1-4, 7.

- (ff. 3v-15v): Calendar tables, including feasts, sun and moon and tables of regions, with lists of cities, mostly Italian: Genoa, Naples, Venice, Rome; also Paris, Salzburg, Vienna, Prague, Buda, Lisbon Cordoba.
- (ff. 16r-20v): Eclipse diagrams, possibly with oxidized silver?
- (ff. 32r): Sundial diagram.
- (ff. 32v): Calendar diagram.

Comments

There is a fragment of a quire visible at the back of the volume, at top left corner, with one letter 'm' visible and threads from binding visible. There is evidence that another quire was removed, between fols. 67 and 68 (quires V and VI), here the thread where a quire would have been is visible and a small corner of paper.

Overall this is a very clean manuscript, with very few smudges in the margins. Blank pages may have been intended for more drawings, as they are set into the middle of texts. Interestingly, the inserted chapters of Book III are only chapters which treat the different kinds of gold, and they are inserted before the Book I chapters on painting with gold in books. It is difficult, however, to see similar logic in the next set of extrapolated chapters, and titles are not always clear.

Provenance

Possibly written by Johannes de Monte Regio?

Bibliography

Heinemann, *Die Handschriften der Herzog-August Bibliothek*, III, 69-70, no. 1127.
Johnson, "The Manuscripts of Theophilus Presbyter," 99.

Binding

Leather.

Amiens Bibliothèque Municipale Lescalopier 46

Theophilus Presbyter, *De diversis artibus*.

195 x 138 mm; paper; 86 fols.

Fifteenth or sixteenth century

Italian

1. (fol. 1r) Theophilus, *de diversis artibus*
no title, incipit: *Theophilus humilis presbyter servuus servorum dei...*
2. (ff. 1r-2v) Prologue I
3. (fol. 2v-3v) Capitula, book I
4. (ff. 3v-19r) Book I
5. (ff. 19r-20r) Prologue II
6. (ff. 20r-21r) Capitula, book II
7. (ff. 21r-34v) Book II
8. (ff. 34v-36v) Prologue III
9. (ff. 36v-38v) Capitula, book III
10. (ff. 38v-86r) Book III
explicit: *explicit grossitudines erunt.* (ch. lxxxi, *de organis*)

Description

Written in a single column, with 26 lines per page.

Collation

I¹⁰, II⁸-IX⁸, X⁸⁺¹, XI³

Comments

The quires are difficult to distinguish because of rebinding. There are catchwords on every page, both recto and verso. Each quire is marked with a letter, a-l, and the left-hand pages of each bi-folio are then numbered, as a1, a2, and so on. The volume is paginated but not foliated.

The manuscript is written by one hand until folio 83v, at the end of gathering X. Another hand takes over at 83v, at the bottom of page, at the end of Book III, ch. lxxviii, *De purganda antiqua de auratura*, after “*vero die.*” This new hand is contemporary but messier. Here too the format changes; the margins get very small, and there are 21 lines per page. This second hand also makes corrections in the text from the beginning as Dodwell attests.²⁴

Decoration

No colored capitals, no initials, no illustrations.

There is only one initial “T” on fol. 1r, a 2-line initial in black. No incipit. No title.

²⁴ Dodwell, *DDA*, lviii-lix.

Provenance

Italian, humanist.²⁵ Fol. 1r contains seal of Bibliothèque Caroli de Lescalopier.

Bibliography

Dodwell, *De diversis artibus*, lviii-lix.

Johnson, "The Manuscripts of Theophilus Presbyter," 99.

Binding

Rebound, modern era.

²⁵ Dodwell, *DDA*, lviii.

Klosterneuburg, Augustiner-Chorherrenstift, CL 331

Peter Damian, multiple texts, sermons, sentences, William of Ockham, *Chronica Brevis*,
Theophilus Presbyter, *De diversis artibus*.

305 x 215 mm, paper, 402 ff.

Fifteenth century

Section I

1. (ff. 1-174v) *Sententiae ex sanctis patribus*
One column, 50 lines per page, laid paper, watermark

Section II

2. (ff. 175-179) Peter Damian, *De horis canonicis disputacio*
3. (ff. 179-193v) Peter Damian, *Regula heremitica*
4. (ff. 193v-197r) Peter Damian, *De ordine vite heremetice et facultatibus heremi*
5. (ff. 197r-199r) Peter Damian, *Sermo contemptilibus monachi, fratribus heremi (tanis de spiritu sancto)*
6. (ff. 199r-203r) Peter Damian, *De vicio lingue*
7. (ff. 203r-206r) Peter Damian, *De spirituali certamine sermo*
8. (ff. 206r-222v) Peter Damian, *Liber Gomorrianus*
2 columns, 37 lines per page, one hand

Section III

9. (ff. 223r-306r) *Sermones festivales et dominicales*
2 columns, 33 lines per page, one hand

Section IV

10. (ff. 307r-354v) Henry of Oyta, *Lecturae super psalm. I-III. Vers. 4*
2 columns, 38 lines per page, one hand

Section V

11. (ff. 355r-365v) William of Ockham, *Dialogorum, secunde partis*
12. (ff. 367r-378r) *Sermones festivales*
13. (ff. 379r-390r) *Chronica brevis mundi ab initio usque ad annum 1276*
14. (ff. 391r-399v) Theophilus, *de diversis artibus et de temperamento colorum et in nudis corporibus*
Insertion in text, probably by Pfeiffer: *Theophili presbyteri*

breviarum omnium artium liber I et libri III^{di} priora (20 ct unum) capita. Tria capita libri primis in 4 codicibus MSS huius operis huiusque notis viennensi (ex. s. XII quocum hac ad zappert anno 1837 collata sunt, lipsiensi et guiferbytano et forsque in parisiorum desunt

One column, 45-50 lines per page, three hands, one hand per each text.

- (ff. 391r- 397r) Book I, chapters i-xxxviii (*de incausto*)
(ff. 397r-v) Prologue II
(ff. 397v-399v) Book II, chapters i- xvii (*de componendis fenestris*)

15. (ff. 400r-402v) blank

Description

Paper, with some parchment inserts in the binding. On fols. 1r-174v the columns, hands and lines per page vary according to section, see above. Written by multiple hands in blank ink, with a few rubrics. Catchwords mark breaks in gatherings in the first four sections, but do not continue after fol. 354v. Margins are ruled. A modern flyleaf, dating to before 1910, bears an inscription with date and name of Hermann Pfeiffer. Pfeiffer's comments are visible in margins throughout the text, but there are no other notes.

Collation

I II¹²

Decoration

No illustrations. There was space left for initials in *On Diverse Arts* but these were never filled in.

- (fol. 1r) Large 9-line initial "N" in red and black

Comments

Overall this manuscript contains a clean text, with little damage or dirt and few marginal notes; the volume is in fairly good condition, except for some worm holes. Catchwords are visible at most gathering breaks, except at text breaks; but catchwords appear at hand breaks, especially in part I, where text continues across hands, and they seem to alternate, or switch back and forth days of writing. Overall there is a great consistency across the book. Margins are roughly the same, lines per page are generally between upper 30s and 50, paper is all laid, and much of it is watermarked, especially in section I and in Theophilus' text. The folios of Theophilus were paginated separately by a modern hand, then repaginated again in accordance with the rest of the volume. Perhaps this dates to the rebinding, which is modern. There are corrections in the text, made by the hand of Pfeiffer.

Provenance

Ex-libris "Liber s. Marie virginis in Newnburga Claustrali, s. xv ff. 1, 222, 399.

Similarly, inside front cover is inscription, black ink: “1/1 f. 402, 27/x 1910. Hermann Pfeiffer.”

Bibliography

Pfeiffer, Hermann and Bertholdo Cernik, *Catalogus codicum manu scriptorum, qui in ... Claustroneoburgi asservantur*, 91-94.

Binding

Wooden covers, with spine covered in leather and stamped with modern label: *varii tractatus theolo.: MS 331.*

Paris, Bibliothèque Nationale, MS lat. 6741

Experimenta de coloribus; Theophilus, *De diversis artibus*; Peter of Audemar, *Liber de coloribus faciendis*; Heraclius, *De diversis coloribus*; Jean Le Bègue, *Receptes pour les couleurs*.

216 x 148 mm.; Paper; 106 fols.

1431

Paris, written by Jean Le Bègue.

Contents

1. (fol. 1r) Table of contents
2. (fol. 1v) Blank
3. (ff. 2r-20v) *Experimenta de coloribus*
Incipit: 1° *Experimenta 118. de coloribus: praemittitur tabula ordine alphabetico digesta de vocabulis synonymis & aequivocis colorum, eorumque accedentium ...*
4. (ff. 20r-21v) Blank
5. (ff. 22r-41v) Experimenta de coloribus, continued
6. (ff. 42r-42v) Blank
7. (ff. 43r-51r) Theophilus, *De diversis artibus*
incipit: 2° *Theophili liber de omni scientia picturae artis.*
8. (fol. 43r) Initial hexameters:
*Sensim per partes discuntur quaelibet artes
...sicut liber iste docebit.*
9. (ff. 43r-44r) Prologue, Book I
10. (fol. 44v) Capitula, Book I
11. (ff. 44v-51r) Book I, ch. i-xxvii
12. (fol. 51v) Blank
13. (ff. 52r-64r) Peter of Audemar, *Liber de coloribus*
Incipit: 3° *Petri de Sancto Audemaro liber de coloribus faciendis.*
14. (ff. 64v-81r) Heraclius, *Liber de coloribus et artibus Romanorum*
Incipit: 4° *Heraclii libri tres de coloribus & de artibus Romanorum.*
15. (ff. 81v-85v) Johannes Alcherius, *de compositione colorum*
incipit: 5° *Libellus de compositione colorum: authore Joanne Alcerio.*
16. (fol. 86r-v) Blank
17. (ff. 87r-90r) *De diversis coloribus*
18. (ff. 90v-91v) Blank
19. (ff. 92r-101v) Jean Le Bègue, Recipes for colors
Incipit: 6° *Differentes receptes fur les couleurs, receuillies par Jean Le Bègue, Gressier de la Monnoye de Paris.* Written in French and Latin.
20. (ff. 102r-104v) Blank

Description

This is a uniform text, on paper, ruled, written in one column with 29 lines per page. It was copied by a single hand, identified in colophon as Jean Le Bègue. There are small red and blue initials throughout.

Comments

Written and compiled by Jean Le Bègue, master of the Paris mint, in 1431, presumably for his personal use. It is a beautiful manuscript, with red and blue initials and lots of blank space, and blank pages before each text. There are no illustrations, and a few marginal notes.

Provenance

Jean Le Bègue, 1431.

Ex-libris Ludovico Martelli, Rx, 1587, of Rouen; then in the seventeenth century it passed to Jean Bigot of Normandy and his sons. The manuscript was transferred to the Bibliothèque Nationale de Paris with the rest of the Bigot collection after death of Jean's son Robert in 1692.

Bibliography

Bidez, et al., eds. *Catalogue des manuscrits alchimiques Latins I*, 39-48.

Dodwell, *De diversis artibus*, lxviii.

Johnson, "The Manuscripts of Theophilus Presbyter," 98-99.

Merrifield, *Original Treatises*.

Thompson, "The *Schedula* of Theophilus Presbyter," 219.

Theobald, Raspe, Escalopier, Ilg and Merrifield drew on this manuscript for their editions of the text.

Vienna, Österreichisches Nationalbibliothek MS 11236

Theophilus, *De diversis artibus*

205 x 160 mm; paper; 89 fols.

Seventeenth century

Germany?

Contents

1. (fol. 1r) Title page
Theophilus monachi (ni fallor, benedictini) qui et Rogerus libri tres (nunquam editi)
I. *de temperamento colorum*
II. *de arte vitraria*
III. *de arte fusili*
descripti ex antiquo codice membranaceo (in 12 mo. Catog meono notato)
Augustiana Bibliotheca Casarea Vindonobonensis
In the same hand as these notes, is added below:
Liber ist olim pertmisirit ad. Bern. Rottendorf D. Medicum Coserverin et Electoral, A cls hc xlvii
- (fol. 1v) Inscription:
De hoc auctore consulendis est liber lumen animae nuncupatis, ab anangma conscriptus tempore Joannis PP xxii typis ver eiilgatus A. 1477. Opera fratrssi Matthiew Farmatoris de Vienne ordini Carmelitarium.
- (fol. 2r-3v) Prologue I
Inserted title in hand of title page here. Text includes corrections.
- (ff. 3v-4v) Capitula, book I
- (ff. 4v-18r) Book I, ch. i-xxxvii, *de cerosa*
- (fol. 9r) Library seal
- (ff. 18r-v) Prologue II
- (ff. 18v-19v) Capitula, book II
- (ff. 19v-32v) Book II, ch. i- xxxv, *de annulis*
- (ff. 33r-35r) Prologue III
- (ff. 35r-36v) Capitula, book III
- (ff. 36v-89r) Book III, ch. i-lxxvi, *de organis*

Description

Paper, 25 lines per page, single column, one hand.

Collation

I-XI⁸, plus one fly-leaf

Comments

The text is clean, neat, with headings for each chapter. All chapter numbers are written in words. Neatly printed hand, wide margins, gatherings are marked by letters, at each first

folio. Additional notes are inserted in parentheses, as reproduced here, above. The manuscript is a copy of G, though with the title page referring to V.

Provenance

Perhaps copied at library of Bernard Rottendorff.

Bibliography

Dodwell, *De diversis artibus*, lix.

Johnson, "The Manuscripts of Theophilus Presbyter," 99-100.

Theobald, *Technik des Kunsthandwerks im zehnten Jahrhundert Des Theophilus Presbyter*, xix.

Thompson, "The *Schedula* of Theophilus Presbyter," 220.

Venice, Bibliotheca Marciana, Lat. VI, 199 (3597)

Theophilus, *De diversis artibus*

193 x 143 mm; paper; 134 fols. plus 2 flyleaves.

Seventeenth century

1. (fol. 1r) Title page
Theophili monachi qui et Rugerus, libri tres
I. *de temperamentis colorum*
II. *de arte vitriana*
III. *de arte fusili*
descripti ex antiquo codice membrenaceo msto augustissima
bibliotheca casared. vindobonensis.
Seal of library
- (fol. 2r) *incipit prologus libri primi Theophili qui et Rugerus, de diversis artibus*
- (ff. 2r-28v) Book I, ch. i-xxv, *de cerosa*
- (ff. 28v-29v) Prologue II
- (ff. 30r-

Description

Laid paper, incised ruling, 23 lines per page, one column, one hand.

Collation

1 flyleaf, 1 title page, I-XII⁸, XIII⁶, XIV⁸, XV⁶, XVI⁸, two flyleaves

Comments

There are no drawings or initials; the capitula are in arabic numerals, as opposed to Vienna 11236, another copy of V/G, in which chapter numbers are written out. Catchwords are visible at bottom of each page.

Provenance

From collection of Venetian noble and Giacomo Nani (1725-1797), who gave his large collection of books to the Bibliotheca Marciana.

Bibliography

Johnson, "The Manuscripts of Theophilus Presbyter," 101.

Thompson, "The *Schedula* of Theophilus Presbyter," 213-214.

Binding

Leather binding contemporary with text, author name on spine, *Theophili monachi*.

Wroclaw, Universitätsbibliothek, IV 8° 9

49mm x 42mm; parchment and paper; 394 fols. plus 2 fly leaves

frontispiece inscription Canonicon Sanct Ligaxi?

Fifteenth century (1465?)

Contents:

2nd fly leaf:

Table of contents: (later- sixteenth or seventeenth century)

Praecipria huius voluminis contenta sunt

1. *Tractatus de memoria artificiali*
2. *liber pulcherrimus doctrinalis, clajreticus et alia varia*
3. *Tractatus de peccatis*
4. *Tractatus de praeceptis decalogi*
5. *Diversa fabula*
6. *Epistola diversa praesertim Henricisitis lau abbais inter quas confaederatio arenensium canoni corum cum canonia nostra*

Signature

A. M f GL VMH

1. (ff. 1r-10r) *Tractatus de memoria artificiali.*
36 lines per page
2. (ff. 10r-81v) *Liber pulcherrimus doctrinalis, clajreticus et alia varia*
33 lines per page
3. (ff. 82r-99r) *Tractatus de peccatis*
27 lines per page
4. (ff. 99r-147v) *Tractatus de praeceptis decalogi*
29 lines per page
5. (ff. 148r-380v) *Diversa fabula*
27 lines per page
6. (ff. 381r-392v) *Epistola diversa praesertim Henricisitis lau abbais inter quas confaederatio arenensium canoni corum cum canonia nostra*
21 lines per page

Description

Written on paper. In addition to 2 fly leaves and multiple reused pages, there are inserted parchment folios at the back of the volume. Most folios contain around 30 lines per page, except for the end section, which is parchment and contains 19 lines per page. Written by multiple hands, the manuscript is ruled, with some pricking visible.

Collation

I¹⁰⁺¹, II¹²⁻¹ III - IV¹², V⁹ VI¹⁰, VII¹⁶, VIII¹¹, IX¹² -X¹², XI¹¹, XII¹², XIII¹¹, XIV⁽¹²⁾ ff. 148r-
XV¹¹, XVI -XXIII¹², XXIV-XXV¹⁶, XXVI¹² XXVII¹⁰⁻², XXVIII¹⁶, xxix¹⁰⁺¹ XXX-
XXXI¹⁶, XXXII⁶⁻³, XXXIII¹²

Comments

Overall the book is relatively uniform, despite some inserted pages, some cut pages, and a few different hands. Clipping of bottom margin is visible, especially in second half of book, and there are occasionally marginal notes throughout. It is written in fifteenth-century script throughout, and up to fol. 278 the margins are consistent; thereafter the format changes: folios 278-280 are clipped, and folios 381-392 revert to original format. Fol. 393 is an inserted parchment, with possibly Carolingian (or twelfth-century archaizing) script. This is an excerpt of larger text. Following this there is another inserted leaf on paper, with writing in a later fifteenth-century hand.

Though written by multiple hands, there are attempts at consistency, especially in the number of lines per page, and in the margins. There are some notes. The writing throughout is cramped, small, and difficult to read, but at times very messy. Hands generally correspond to breaks in text, but not always. There are rubrics throughout. Some green titles are written in part 5, which is done in a more archaizing style, and also contains initials, but these are only one-line initials and there are only a few in green. This is also a very short section: ff. 148r-55r.

Bibliography

Johnson, "The Manuscripts of Theophilus Presbyter," 99.

Binding

Leather binding, possibly fifteenth or sixteenth century. It seems not to have been rebound. The cover is made of incised leather with stamping and gold pins on a wood panel. The end papers are made of reused paper.

Montpellier, École de Médecine MS lat. 277

Platonis Apuliensis; *Diversis herbis*; Anthonii muse, Agrippa, *Herba*; Platonis Apuliensis, *Vertutibus diversarum herbarum*;
205 x 293 mm; paper and parchment; 163 ff.
Fourteenth and fifteenth century
French

- 1.
2. (fol. 81r) *Incipit vulturis*
3. (ff. 81v-100v) *Liber diversis arcibus*
(fol. 81v) *Incipit: liber diversis arcibus*
continues format of previous text
(fol. 100v) *Explicit: liber diversis arcibus, deo gratias amen*
(fol. 101r) blank
(ff. 101v-102r) *Capitula, book I*
new hand

(ff. 102r-
(fol. 111r) *explicit liber platonis*
(fol. 111v) blank
(ff. 112r-116v) *Liber lapidibus*
(fol. 117r) blank
(ff. 117v-119r)
(ff. 118v-119r) *libellus marmor?*
(ff. 119v-120r) *incipit tabula sequenti libri platonis*
(ff. 120r-
(fol. 163v) Seal, École de Médecine

Description

Written on paper, with only the last quire on parchment. There are also some re-used pieces of parchment on fols. 11, 21; on fols. 120, 129 (which are both a single folio, marking the end of a gathering); and on fols. 130, 161 (the edges of two gatherings, perhaps suggesting it was a pamphlet). Fols. 162, 163 contain drawings on parchment.

Collation

I-IX¹⁰, XI⁹, XII¹⁰, XIII²⁴, XIV⁶⁺², XV²

Decoration

(fol. 162-163) medical drawings on parchment.

Bibliography

Bidez, *Catalogue des Manuscrits Alchimiques Latins* I, 43, 219-20; II, 77-85, 277.
Dodwell, *De diversis artibus*, lxx.
Johnson, "The Manuscripts of Theophilus Presbyter," 96-97.
Ravaisson, *Catalogue Général des Manuscrits* I, 739-811.

Munich, Bayerische Staatsbibliothek Clm. 444

Various

208 x 150 mm (paper) and 192 x 141 mm (parchment); 230 fols. plus one flyleaf, Fourteenth century; two sections were bound together in the seventeenth or eighteenth century

Description

Paper (ff. 1-184), and parchment (185-230); pricked and ruled, one hand (parchment section), 44-56 lines per page.

Collation (*Section II, parchment*)

I-II⁸, III¹⁰, IV², V⁸, VI⁸⁺²

Decoration

Most notable are the diagrams within the manuscripts, ff. 213r-214r. The diagrams are detailed and even ornamented. Red and brown ink, letters label different parts.

- (fol. 185r) two 3-line red initials, and two 2-line red initials
- (fol. 213r) 17-line initial I, red and brown
- (fol. 213r) diagram
- (fol. 213v) diagrams of machinery, boilers
- (fol. 214r) diagrams of machinery, boilers and heaters

Comments

Catchwords are visible at end of gatherings I and II (fols. 192v, 200v), but not at the ends of gatherings III-VI. It seems likely these two latter sections were bound together at a later date, perhaps when the rest of the volume was bound in the seventeenth or eighteenth century. Gatherings I-IV are the same format and written on similar parchment. The folios in this section are very dirty, and have been damaged by mold. There are some 2- and 3-line initials. Gathering II also has an older foliation visible on bottom right of page, in red ink.

Gathering V contains Theophilus text, written in 56 lines per page, in two columns. It is also written by a new hand, which continues until fol. 219v. There are then three sets of short additions to the text written on very thin parchment.

Bibliography

Johnson, "The Manuscripts of Theophilus Presbyter," 96.

Binding

Seventeenth or eighteenth century binding of paper and parchment sections.

Florence, Bibliotheca Nazionale MS Palat. 951

Theophilus, *De diversis artibus*, texts on the workings of metals, in Italian and Latin;
220 x 150 mm; paper; 143 fols.

Late fourteenth or fifteenth century

Italy (Naples?)

1. (ff. 1r-11v) Theophilus
(ff. 1r-2r) Prologue I (no capitula)
incipit: *Teophilus (sic.) servus servorum dei*
(ff. 2r-9r) Book I
explicit: *aurum argentum stagnum et plumbum.*
2. (ff. 9v-30v) *Confezioni e lavorazioni di metalli, vetri colori et glutini per arti et mestieri diversi.*
Includes excerpts, *Mappae clavicula*
incipit: *de lazur qualiter distemperando...*²⁶
explicit: *ad tingendum ossum... et fac quod volveris.*
3. (ff. 31r-41v) *Incipit liber de coloribus metallorum...*
no explicit. *Compiler Rusticus*
4. (ff. 40v-43v) *Incipit flores de coloribus istius libri quos Rusticus translatavit*
(fol. 41r) blank
5. (ff. 44r-48r) tables and glossary of alchemical terms
6. (ff. 48v-49r) Cico de Ascoli, on natural stones
7. (ff. 53r-57v) *De Balneis Puteolanis Carmen Elegiacum*
8. (ff. 58r-60r) *Physiognomonica Aristotelis*
9. (ff. 64r-67r) *Liber secretorum Aristotelis de regimine dominorum*
10. (ff. 70r-71r) Glossary of Neapolitan and arabic words
Interspersed text recounting deeds of Alfonso d' Aragona of Naples, 1420-1421
11. (ff. 73r-97v) Arnaldi di Villanova, *liber rosarii philosophorum*
12. (ff. 98r-104v) Thomas Aquinas, *liber supra lapide philosophico*
13. (ff. 106v-110v) Bartolomeo Caracciolo, *breve cronaca dei reali di sicilia e napolis*
14. (ff. 111r-142v) Recipes of alchemy, remedies, and arts, in Latin and Neapolitan.

Description

Written on paper, in a single column, by 5 hands. The first hand writes 20 lines to a page, the hands writing the rest of the volume write 39 or 40 lines to a page.

Collation

I²¹, II²⁰, III²², IV²⁰, V²⁰, VI²⁴, VII¹⁸

²⁶ The catalogue and Johnson list the Theophilus text as running through folio 11r; these latter chapters, however, are not included in older versions of *On Diverse Arts* and therefore are a separate category. See Indici e Cataloghi, as above, I, fasc. I, 439-445. Johnson, "The Manuscripts of Theophilus Presbyter," 97.

Comments

A frontispiece to the text reads *secretorum*. The first hand writes 20 lines per page and copies through folio 41v. The rest of the volume is written in much smaller, messy hands, and is difficult to read. The book has been recently restored and rebound, so it is difficult to know how the book was originally assembled, but the gatherings are labelled with letters A through E, suggesting the volume was assembled this way from an early date. The first section, however, which runs through folio 41, does seem to have been written as a single unit. There are no initials marking chapters of Theophilus, but there are initials in the latter part of the Theophilus section. These initials mark the beginning of those chapters that are from non-Theophilan sources. Some corrections have been made in the text in pencil and are of a much later date.

Provenance

Inserted flyleaf includes ex-libris of Library of G. Govi, 1888.

Bibliography

Dodwell, *De diversis artibus*, lxix.

Indici e cataloghi IV: i codici Palatini della R. Bibl. Nazionale Centrale di Firenze I, fasc. 1, 439-445.

Johnson, "The Manuscripts of Theophilus Presbyter," 97.

Amiens, Bibliothèque Municipale, Lescalopier MS 47D

Theophilus, *De diversis artibus, In principis de coloribus*. Copy of Cambridge E e. 6 39
250 x 335 mm, paper, 17 fols. plus flyleaf and inserted letter

1841

Copied by M. Baker for William Pickering, London, on behalf of J.-Marie Guichard,
Paris

(ff.1r-15r) Theophilus, *de diversis artibus in principis de coloribus*
explicit ch. xxiii, *de petula stagni*

Description

Paper, margins are ruled; 31 lines per page; one hand, single column.

Collation

1⁶⁻¹, II⁴, III⁴⁺¹, IV⁶

Comments

The book is written in a fine, calligraphic cursive, in a large and confident style. Each folio of the prologue is only written on the recto; chapters are written on recto and verso, with large calligraphic titles. The volume is paginated.

Inserted in the flyleaf is a letter of October 31, 1841 from the publisher William Pickering, 57 Chancery Lane, London, to J.-Marie Guichard, Bibliothèque Royale, Rue de Georges no. 24, Paris. The letter indicates that Guichard had requested the copy of the manuscript at Cambridge, for which he paid £8. Pickering sent a scribe, a certain M. Baker, to Cambridge to copy the manuscript. From the fineness of the script it can be surmised that he was a professional calligrapher or scribe. He was not, however, someone affiliated with the university, for the letter states that he had to be supervised while transcribing the text.

There are some corrections and notations of oddities in the text. These notations and the abbreviations in the titles, suggest the manuscript was used for comparative purposes, perhaps by Guichard in his preparation of his edition of Theophilus.

Bibliography

Johnson, "The Manuscripts of Theophilus Presbyter," 101.

Theophilus, *Libri 3 seu Diversarum artium schedula*, ed. L'Escalopier.

Binding

The volume is bound in fine venetian paper covers, and the spine is stamped with gold.

Title: Theophilus Monachus MSS Cantabrigensis.

Amiens, Bibliothèque Municipale, MS 117

Collection of texts copied from other manuscripts, including Theophilus, *De diversis artibus, in principis de coloribus*. Copy of Amiens Lescalopier MS 47D

310 x 199 mm, paper, non-paginated, 39 fols plus 2 flyleaves

Nineteenth century

French

1. (ff. 1r-18r) Epistles of Paul
Copy of Bibliothèque de l'Arsenal MSS h. Fr. g 02 f^o
2. (ff. 1r-3v) *Corollaria metrica, seu versus leonini*
3. (ff. 1r-4r) text on painting on glass
4. (ff. 1r-2r) Epistola XLVII, Geoffrey of Vendome
5. (ff. 2r-12v) Theophilus, *De diversis artibus, in principis de coloribus*, copy of Amiens Lescalopier MS 47D, and of Cambridge, University Library E e 6. 39.

Description

On paper, with ruling. Written by one hand. Non-foliated.

Collation

I¹⁴, II¹⁸, III⁸, IV², V¹²

Bibliography

Johnson, "The Manuscripts of Theophilus Presbyter," 101.

**Appendix B: Transcription of Paderborn, Erzbistumarchiv, Urkunden
Generalvikariat Nr. 11²⁷**

In nomine sancte et individue trinitatis Heinricus, ipsa propiciante, sancte Paderburnensis ecclesie episcopus, notum esse volumus tam futuris quam presentibus cunctis ecclesie Christique fidelibus, nos, penitentia peccatorum nostrorum et spe future retributionis ductos, sancte, que in Helmwardeshusen est, ecclesie in honore domini salvatoris necnon et beatissimi apostolorum principis Petri constructe ecclesiam, que est in ville Thesle nuncupata, rogatu atque consensu cleri sancte Paderburnensis ecclesie contulisse et iure perpetuo cum omnibus appenditiis id est: decimis, agris cultis et incultis, pratis, paschuis, aquis aquarumve decursibus, piscationibus, silvis et cunctis redditibus in proprietatem ad usum deo illic serventium tradidisse, legasse, concessisse; decimationem quoque in villa, que Muthen dicitur eodem modo in possessionem perpetuam contulisse pro salute corporis et anime nostre et ob memoriam Popponis episcopi, antecessoris nostri, qui eidem ecclesie bannum capelle in villa ipsius monasterii cum septem adiacentibus ecclesiis contulit, ut tali donatione restaurum piscationis faceret in Herstelle, quam ab ipso monasterio petens acceperat, simulque ob recordationem felicitis memorie Imadi episcopi et omnium predecessorum nostrorum.

Restituimus autem per hanc eandem traditionem eidem ecclesie **crucem auream**, quam inde cum consensu Thetmari abbatis aliorumque fratrum accepimus atque ad ornatum et decorem nostre, que in Paderburne est, matri ecclesie transtulimus necnon et scrinium, quod nostro sumptu frater eiusdem ecclesie Rogkerus satis expolito opere in honorem sancti Kyliani atque Liborii fabricaverat. **Crucis vero** atque **scrinii**, banni ac piscationis ideo fecimus mentionem, ut noverint succedentes nobis deo traditum, quod accepimus, nec destruendum, quod statuimus. Ut igitur hec statuta perpetua firma nobis, nostre illique ecclesie devunctis etiam prenotatis permaneant, hec describi iussimus et sigilli nostri impressione signavimus. Banno quoque domini nostri Jesu Christi et beatissimi apostolorum principis Petri nostraque, quam accepimus, ligandi atque solvendi auctoritate firmavimus et firmamus. Sie quis autem hec infringere vel destruere presumpserit, sese cum omnibus sibi cooperantibus anathemate perpetuo ab eo, quem offendit, beato Petro dampnatum noverit.

Data XVIII. Kalendas septembris anno dominice incarnationis millesimo centesimo, indicitone VIII., ordinationis vero heinrici episcopi XVI.

²⁷ From the version published by Alois Fuchs, *Die Tragaltäre des Rogerus in Paderborn*, as ch. 4, note 86.

Bibliography

- Agricola, Georgius. *Bermannus, (le mineur) un dialogue sur les mines*. Ed. Robert Halleux and Albert Yans. Paris: Belles Lettres, 1990.
- Agricola, Georgius. *De re metallica*. Trans. H. C. Hoover and L. H. Hoover. New York: Dover, 1950.
- Agrippa, Henry Cornelius. *The Vanity of Arts and Sciences*. Translation of *De incertitudine et vanitate scientiarum*, Antwerp, 1530. London: Printed by R.E. for R.B. and sold by C. Blount, 1684.
- Alexander of Neckham. *Alexandri Neckham de naturis rerum libri duo*. Ed. Thomas Wright. *Rerum Britannicarum medii aevi scriptores* 34. London: Longman 1863.
- Alexandre, J. "Nécrologe de l'abbaye de Neufmoustier, de l'ordre des chanoines réguliers de Saint-Augustin, à Huy." *Annales du cercle Hutois des sciences et des beaux-arts* V (1883): 280-303, VI (1884): 101-143.
- Ammann, Hektor. *Une importante contribution suisse à l'histoire hutoise: Huy sur Meuse dans l'économie médiévale*. Extract from *Annales du cercle Hutois des sciences et beaux-arts*. Huy: Degrace, 1954.
- Andrew of St. Victor. *Expositiones historicae in libros Salomonis*. Ed. Reiner Berndt. *Corpus christianorum, continuatio mediaevalis* 53B. Turnhout: Brepols, 1991.
- Ayscough, S. *A Catalogue of the [Sloane MSS] Preserved in the British Museum*. London: John Rivington for the British Museum, 1782.
- Auberger, Jean-Baptiste. *L'unianimite cistercienne primitive: Mythe ou réalité? Cîteaux: Studia et Documenta* 3. Brecht: Cîteaux, Commentarii cistercienses, 1986.
- Augustine, St. *The Confessions, The City of God, On Christian Doctrine*. Great Books of the Western World Series 18. Ed. Robert Maynard Hutchins. Trans. Marcus Dods and J.F. Shaw. Chicago: Encyclopedia Britannica, 1952.
- Augustine, St. *De doctrina christiana. De vera religione*. *Corpus christianorum, series latina* 32. Turnhout: Brepols, 1962.
- Augustine, St. *De diuersis quaestionibus octoginta tribus. De octo dulcitii quaestionibus*. Almut Mutzenbecher, ed. *Corpus christianorum, series latina* 44A. Turnhout: Brepols 1975.
- Augustine, St. *The Lord's Sermon on the Mount*. Trans. John J. Jepson. Westminster, MD: Newman Press, 1948.
- Bacha, Eugène ed. *Chronique Liègeoise de 1402*. Commission royale d'histoire. Brussels: Librairie Kiessling, 1900.
- Bänsch, Birgit. *Kölner Goldschmiedekunst um 1200. Muster und Modelle*. Münster: B. Bänsch, 1986.

- Barbier, V. and J. *Histoire de l'abbaye de Floreffe de l'ordre de Prémontré*. Namur, Wesmael-Charlier, 1880.
- Baxandall, Michael. "Rudolph Agricola and the Visual Arts." *Intuition und Kunstwissenschaft*. Intuition und Kunstwissenschaft: Festschrift für Hanns Swarzenski zum 70. Geburtstag am 30. August 1973. Ed. Peter Bloch, Tilmann Buddensieg. Berlin: Mann, 1973. 409-19.
- Baxandall, Michael. *Painting and experience in fifteenth century Italy: a primer in the social history of pictorial style*. Oxford: Clarendon Press, 1972.
- Baumgarten, Jörg. "Der Buchdeckel des Roger von Helmarshausen, Versuch einer ikonographischen Bestimmung." *Schatzkunst Trier: Forschungen und Ergebnisse*. Ed. Franz J. Ronig. Trier: Spee, 1991. 35-44.
- Baumgärtner, Ingrid, ed. *Helmarshausen: Buchkultur und Goldschmiedekunst im Hochmittelalter*. Kassel: Euregioverlag, 2003.
- Beck, Herbert and Kerstin Hengevoss-Dürkop, eds. *Studien zur Geschichte der Europäischen Skulptur im 12./13. Jahrhundert*. Frankfurt am Main: Heinrich Verlag, 1994.
- Benedict, St. *RB 1980: The Rule of St. Benedict in Latin and English with Notes*. Ed. Timothy Fry. Collegeville, MN: Liturgical Press, 1981.
- Bell, Maureen. "Monastic Libraries, 1400-1550." *The Cambridge History of the Book in Britain* 3. Cambridge: Cambridge University Press, 1999.
- Berghaus, Peter. "Die Münzprägung westfälischer Stifte und Klöster." *Monastisches Westfalen: Klöster und Stifte, 800-1800*. Ed. G. Jászai, H.K.L. Schulze, and J. Luckhardt. Exh. cat. Münster: Westfälisches Landesmuseum für Kunst und Kulturgeschichte, 1982. 455-457.
- Berlière, Ursmer, ed. "Abbey of Neufmoustier, Huy." *Province de Liège, Monasticon Belge* 2. Maredsous: Abbaye de Maredsous, 1928. 283-299.
- Berlière, Ursmer. *Documents inédits pour servir à l'histoire ecclésiastique de la Belgique*. Maredsous: Abbaye de Saint-Benoît, 1894.
- Bernard of Clairvaux, St. *Bernardi opera*. Ed. Jean Leclercq and Henri Rochais. Cetedoc Library of Christian Latin texts 2. Turnhout: Brepols, 1994.
- Berthelot, M. M., et al., eds. *La grande encyclopédie: inventaire raisonné des sciences, des lettres, et des arts, par une société de savants et de gens des lettres*. Paris, 1855-1902.
- Beyer, Victor. *Les Vitraux des Musées de Strasbourg*. Strasbourg: Musées des Strasbourg, 1978.
- The Holy Bible*. Douay-Rheims version. Rockford Ill: Tan Books, 1971.
- Bidez, J. et al., eds. *Catalogue des manuscrits alchimiques latins, manuscrits des bibliothèques de Paris antérieurs au XVIIIe siècle*. Brussels: Palais des Academies, 1939.
- Bischoff, Bernhard. "Die Überlieferung der technischen Literatur." *Mittelalterliche Studien, Ausgewählte Aufsätze zur Schriftkunde und Literaturgeschichte* 3. Stuttgart: Anton Hiersemann, 1981. 277-297.
- Bischoff, Bernhard. "Die Überlieferung des Theophilus-Rugerus nach den ältesten Handschriften." *Mittelalterliche Studien, Ausgewählte Aufsätze zur Schriftkunde und Literaturgeschichte* 2. Stuttgart, 1967. 175-182.

- Bittermann, Helen Robbins. "The Organ in the Early Middle Ages." *Speculum* 4 / 4 (Oct., 1929) 390-410.
- Bloch, R. Howard. "New Philology and Old French." *Speculum* 65 / 1 (1990): 38-58.
- Bormans, Stanislas. *Cartulaire de la commune de Dinant*. Documents inédits relatifs à l'histoire de la province de Namur, 7. Namur: Wesmael-Charlier, 1880-1908.
- Bos, Gerrit and Guido Menschung. "Macer Floridus: A Middle Hebrew Fragment with Romance Elements." *The Jewish Quarterly Review* 91, nos. 1-2 (2000): 17-51.
- Boulanger, Karine and Michel Hérold, eds. *Le vitrail et les traités du Moyen Âge à nos jours. actes du XXIIIe colloque international du Corpus Vitrearum, Tours, 3-7 Juillet, 2006*. Bern: Peter Lang, 2009.
- Bourassé, Abbé Jean-Jacques M. "Essai sur divers arts... par Théophile, prêtre et moine, formant une encyclopédie de l'art chrétien au XII siècle." *Dictionnaire d'Archéologie sacrée* 12. Ed. J. P. Migne. Paris: 1863. cols. 729-1014.
- Brown, Peter. "Relics and Social Status in the Age of Gregory of Tours." *Society and the Holy in Late Antiquity*. Berkeley, CA: University of California Press, 1982. 222-250.
- Brownrigg, Linda L. ed. *Medieval Book Production: Assessing the evidence*. Proceedings of the Second Conference of the Seminar in the History of the Book to 1500, Oxford, July 1988. Los Altos Hills, CA: Anderson-Lovelace, 1990.
- Buckton, David. "Theophilus and Enamel." *Studies in Medieval Art and Architecture: presented to Peter Lasko*. Ed. David Buckton and T.A. Heslop. Dover: Alan Sutton, 1994. 1-13.
- Byrne, Donal. "Jean Lebègue and the Iconographical Programme for the *Catiline* and *Jurgurtha*." *Journal of the Warburg and Courtauld Institutes* 49 (1986) 41-65.
- Cahn, Walter. "The Rule and the Book: Cistercian Book Illumination in Burgundy and Champagne." *Monasticism and the Arts*. Ed. Timothy Verdon, John Dally, John Cook. Syracuse, Syracuse University Press, 1984. 139-172.
- Cantimori Delio and Frances A. Yates, "Rhetoric and Politics in Italian Humanism." *Journal of the Warburg Institute* 1/2 (1937) 83-102.
- Carolsfeld, Franz Schnorr von, ed. *Katalog der Handschriften der Sächsischen Landesbibliothek zu Dresden 2*. Revision of *Katalog der Handschriften der Königlichen Öffentlichen Bibliothek zu Dresden 2*, Leipzig: Teubner, 1883. Rpt. Dresden: Sächsische Landesbibliothek, 1981.
- Carruthers, Mary. *The Book of Memory: A Study of Memory in Medieval Culture*. Cambridge: Cambridge University Press, 1990.
- Carruthers, Mary. *The Craft of Thought, Meditation, Rhetoric, and the Making of Images, 400-1200*. Cambridge: Cambridge University Press, 1998.
- Carty, Carolyn. "Dream Images, memoria, and the Heribert Shrine." *Memory and the Medieval Tomb*. Ed. E. Valdez del Alamo. Brookfield, VT: Ashgate, 2000. 227-247.
- Castelnuovo, Enrico, ed. *Artifex bonus: il mondo dell'artista medievale*. Roma: Laterza, 2004.
- Catalogus codicum manuseriptorum bibliothecae Regiae Parisiensis* III. Paris, 1744.
- Catalogus Librorum Manuscriptorum Bibliothecae Sloanianae*. London: British Museum, n.d.
- A Catalogue of the Manuscripts Preserved in the Library of the University of Cambridge* 2. Munich: Olm Verlag, 1856-1857. Reprint. Cambridge: Cambridge University Press, 1980. 276-277.

- Cato, Marcus Porcius. *Disticha uel dicta Catonis: collectio distichorum uulgaris*. Ed. Emil Baehrens. Poetae Latini Minores III. Leipzig: Teubner, 1881. 214-236.
- Caviness, Madeline. "Anchoress, Abbess, Queen: Donors and Patrons or Intercessors and Matrons?" *The Cultural Patronage of Medieval Women*. Ed. June H. McCash. Athens, GA: University of Georgia, 1996. 105-153.
- Caviness, Madeline. "Images of Divine Order and the Third Mode of Seeing." *Gesta* 22 / 2 (1983) 99-120.
- Caviness, Madeline. "Obscenity and Alterity: Images that Shock and Offend Us/Them, Now/Then?" *Obscenity: Social Control and Artistic Creation in the European Middle Ages. Cultures, Beliefs and Traditions* 4. Ed. Jan M. Ziolkowski. Leiden: Brill, 1998. 155-175.
- Caviness, Madeline. "Stained Glass." *Dictionary of the Middle Ages* 5. Ed. Joseph Strayer. New York: Scribner, 1985. 548-554.
- Cerquiglini, Bernard. *In Praise of the Variant: A Critical History of Philology*. Trans. Betsy Wing. Baltimore: Johns Hopkins University Press, 1999.
- Charland, Thomas-Marie. *Artes praedicandi, contribution à l'histoire de la rhétorique au moyen âge*. Paris: Vrin, 1936.
- Chazelle, Celia. "Matter, Spirit and Image in the *Libri Carolini*." *Recherches Augustiniennes* 21 (1986) 163-184.
- Chazelle, Celia. "Pictures, Books and the Illiterate: Pope Gregory I's Letter to Serenus of Marseilles." *Word & Image* 5 (1989) 227-251.
- Choulant, Ludovicus. *Macer Floridus de viribus herbarum*. Leipzig: Voss, 1832.
- Cicero, Marcus Tullius. *De Officiis*. Ed. Karl Atzert. Leipzig: Teubner, 1963.
- Claussen, Peter C. "Materia und Opus: Mittelalterliche Kunst auf der Goldwaage." *Ars Naturam Adiuvans: Festschrift für Matthias Winner*. Mainz: P. von Zabern, 1996. 40-49.
- Claussen, Peter C. "Nachrichten von den Antipoden oder der mittelalterliche Künstler über sich selbst." *Der Künstler über sich und in seinem Werk: Internationales Symposium der Bibliotheca Hertziana, Rom 1989*. Ed. Matthias Winner. Weinheim: VCH, Acta Humaniora, 1992. 19-54.
- Cohen, Adam. "The Art of Reform in a Bavarian Nunnery around 1000." *Speculum* 74 / 4 (1999) 576-59.
- Conradus II Germaniae, *Diploma XXIX*. Patrologia Latina 189. Ed. J.-P. Migne. Paris: Garnier, 1844-1855 and 1862-1865. Electronic reprint. Alexandria, VA: Chadwyck-Healey, 1995. cols. 1496-1497.
- Constable, Giles and B. Smith, eds. *Libellus de Diversis Ordinibus et Professionibus qui sunt in Aecclesia*. Oxford: Clarendon, 1972.
- Constable, Giles. "The Ideal of the Imitation of Christ." *Three Studies in Medieval Religious and Society Thought*. 1995. Reprint. Cambridge: Cambridge University Press, 1998. 143-248.
- Constable, Giles. *The Reformation of the Twelfth Century*. Cambridge: Cambridge University Press, 1996.
- Copenhaver, Brian P. "The Historiography of Discovery in the Renaissance: The Sources and Composition of Polydore Vergil's *De Inventoribus Rerum*, I-III." *Journal of the Warburg and Courtauld Institutes* 41 (1978) 192-214.

- Coxe, Henry O. *Catalogus codicum manuscriptorum II. Collegii B. Mariae Magdalенаe*. Oxford: Oxford University Press, 1852.
- Creutz, Max. "Aus der Werkstatt des Rogerus." *Zeitschrift für christliche Kunst* 22 (1909) 357-370.
- Creutz, Max. *Kunstgeschichte der edlen Metalle*. Geschichte der Metallkunst 2. Stuttgart: Enke, 1909.
- Curtius, Ernst Robert. *European Literature and the Latin Middle Ages*. Trans. William Trask. Princeton, NJ: Princeton University Press, 1973.
- Davis-Weyer, Caecilia, ed. *Early Medieval Art, 300-1150; Sources and Documents*. Englewood Cliffs, NJ: Prentice-Hall, 1971.
- Degering, Hermann. "Theophilus Presbiter, qui et Rogerus." *Westfälische Studien, Beiträge zur Geschichte der Wissenschaft Kunst und Literatur in Westfalen, Alois Bömer zum 60. Geburtstag gewidmet*. Leipzig: Hiersemann, 1928. 248-262.
- Delion, J. F. *Catalogue de la bibliothèque de M. le comte Charles de L'Escalopier: avec une notice sur sa vie, des notes historiques, littéraires, biographiques et bibliographiques, une table des noms d'auteurs, des ouvrages anonymes et des matières*. Paris: Delion, 1866-1867.
- Delisle, Léopold. *Bibliothèque nationale, manuscrits Latin et Français ajoutés aux fonds des nouvelles acquisitions pendant les années 1875-1891*. Bibliothèque nationale de France, département des manuscrits. Paris: H. Champion, 1891.
- Deremble, Colette and Jean-Paul. *Vitreux de Chartres*. Paris: Zodiaque 2003. 34-37.
- Deuber-Pauli, Erica and Dario Gamboni. "Suger, Théophile, le Guide Pelerin: Éléments de Théorie de l'art au XIIe siècle." *Études de Lettres* 2 (1980) 43-91.
- Dilke, Oswald A. W. "Varro and the Origins of Centuration." *Atti del congresso di studi varroniani* 2. Rieti: 1976. 353-358.
- Donatus. *The Ars Minor of Donatus, for One Thousand Years the Leading Textbook of Grammar Translated from the Latin, with Introductory Sketch*. Trans. Wayland Johnson Chase. University of Wisconsin Studies in the Social Sciences and History, 11. Madison: University of Wisconsin, 1926.
- Dupont, Susan McChesney. "Decorated Ownership Marks in the Thirteenth-century Library of Alzelle," *Mélanges à la mémoire du Père Anselme Dimier, présentés par Benoît Chauvin*. 3 vols. Arbois: Chauvin, 1982-1987. 2,4: 651-660.
- Dynes, Wayne. *The Illuminations of the Stavelot Bible*. New York: Garland, 1978.
- Eastlake, Charles Lock. *Methods and Materials of Painting of the Great Schools and Masters*. Reprint. New York: Dover Publications, 1960.
- English, Edward D., ed. *Reading and Wisdom: the De Doctrina Christiana of Augustine in the Middle Ages*. With contributions by Grover Zinn. Notre Dame: University of Notre Dame Press, 1995.
- Esmeijer, Anna. "The Open Door and the Heavenly Vision: Political and Spiritual elements in the programme of decoration of Schwarzhemdendorf." *Polyanthea: essays on Art and Literature in Honor of William Sebastian Heckscher*. The Hague: Van der Heijden, 1993. 43-56.
- F., A. L. Jr. Review of Albert Ilg, *Schedula Diversarum Artium*. *The American Journal of Archaeology and of the History of the Fine Arts* 5 / 1 (1889) 63-64.
- Feller, Joachim. *Catalogus codicum MSSCtorum bibliothecae Paulinae in academia Lipsiensi*. Leipzig: Gleditsch, 1686.

- Fleischman, Suzanne. "Philology, Linguistics, and the Discourse of the Medieval Text." *Speculum* 65 / 1 (1990) 19-37.
- Forsyth, Ilene. "Art with History: The Role of Spolia in the Cumulative Work of Art." *Byzantine East, Latin West: Art-historical Studies in Honor of Kurt Weitzmann*. Princeton: Princeton University Press, 1995. 153-162.
- Forsyth, Ilene. "The Vita Apostolica and Romanesque Sculptures: Some Preliminary Observations." *Gesta* 25 / 1 (1986) 75-82.
- Forsyth, William H. "Around Godefried de Claire." *Metropolitan Museum of Art Bulletin*, 24 / 10 (1966) 304-15.
- Francastel, Pierre, ed. *L'Art Mosan*. Paris: A. Colin, 1954.
- Frankl, Paul. "The Chronology of the Stained Glass in Chartres Cathedral." *The Art Bulletin* 45 / 4 (1963) 301-322.
- Freise, Eckhard. "Roger von Helmarshausen in seiner monastischen Umwelt." *Frühmittelalterliche Studien* 15 (1981) 180-293.
- Frinta, Mojmir S. "A Note on Theophilus, Maker of Many Wonderful Things." *Art Bulletin* 46 (1964) 525-529.
- Fuchs, Alois. *Die Tragaltäre des Rogerus in Paderborn: Beiträge zur Rogerusfrage*. Paderborn: Bonifacius-Druckerei, 1916.
- Geary, Patrick. *Furta Sacra: Thefts of Relics in the Central Middle Ages*. Princeton, NJ: Princeton University Press, 1990.
- Geary, Patrick. *Phantoms of Remembrance, Memory and Oblivion at the End of the First Millennium*. Princeton: Princeton University Press, 1994.
- Geary, Patrick. "Sacred Commodities: The Circulation of Medieval Relics." *The Social Life of Things: Commodities in Cultural Perspective*. Ed. A. Appadurai. Cambridge: Cambridge University Press, 1986. 64-94.
- George, Philippe. "Le plus subtil ouvrir du monde: Godefroid de Huy, orfèvre mosan." *Cahiers de Civilisation Médiévale* 39 (1996) 321-338.
- Gesner, Conrad. *Bibliotheca Universalis, sive Catalogus omnium scriptorum... Conrad Gesner*. Zurich: Froschouerus, 1545. Reprinted in *Milliaria, Faksimiledrucke zur Dokumentation der Geistesentwicklung* V. Ed. Hellmut Rosenfeld and Otto Zeller. Osnabrück: Otto Zeller Verlagsbuchhandlung, 1966.
- Gesner, Conrad. *Pandectarum, sive Partitionum universalium... libri XXI*. Zürich, 1548. Reprinted in *Excerpted bibliographies for the history of art and the study of antiquity*. Ed. Margaret Daly Davis. Heidelberg: Universitätsbibliothek der Universität Heidelberg, 2007.
- Giliberto, Concetta. "Stone Lore in Miscellany Manuscripts: The Old English Lapidary." *Foundations of Learning: The Transfer of Encyclopaedic Knowledge in the Early Middle Ages*. Storehouses of Wholesome Learning I. Ed. Rolf H. Bremmer Jr. and Kees Dekker. Dudley, MA: Peeters, 2007.
- Giry, A. *Notice sur un traité du moyen âge intitulé de coloribus et artibus romanorum*. Bibliothèque de l'École des Hautes Études 35. Paris: Impr. nationale, 1878. 209-227.
- Goering, Joseph. *William de Montibus (c. 1140-1213): The Schools and the Literature of Pastoral Care*. Toronto: Pontifical Institute of Mediaeval Studies, 1992.
- Goldstein, Carl. "The Image of the Artist Reviewed." *Word and Image* 9 / 1 (1993) 9-18.

- Grabar, Oleg. "Die Ethische Dimension des Ornaments." *Islamic Art and Beyond, Constructing the Study of Islamic Art 3*, Aldershot: Ashgate Variorum, Collected Studies Series, 2006. 61-79.
- Grabar, Oleg. *The Mediation of Ornament*. Princeton, NJ: Princeton University Press, 1992.
- Grabar, Oleg. "The Shared Culture of Objects." *Islamic Visual Culture, 1100-1800. Constructing the Study of Islamic Art 2*. Aldershot: Ashgate Variorum, 2006.
- Grosebruch, Martin, ed. *Helmarshausen und das Evangeliar Heinrichs des Löwen*. Schriftenreihe der Kommission für Niedersächsische Bau- und Kunstgeschichte bei der Braunschweigischen Wissenschaftlichen Gesellschaft 4. Göttingen: Goltze, 1992.
- Gullick, Michael. "A Bibliography of Medieval Painting Treatises." *Making the Medieval Book: Techniques of Production: Proceedings of the Fourth Conference of the Seminar in the History of the Book to 1500 (Oxford, July 1992)*. Ed. Linda Brownrigg. Los Altos Hills, CA: Anderson-Lovelace, 1995. 241-244.
- Haacke, Hrabanus. *Programme zur bildenden Kunst in den Schriften Ruperts von Deutz*. Siegburg: Respublica-Verlag, 1974.
- Hahn, Cynthia. "Interpictoriality in the Limoges châsses of Stephen, Martial, and Valerie." *Image and Belief*. Ed. Colum Hourihane. Index of Christian Art 3. Princeton, NJ: Princeton University Press, 1999. 109-124.
- Hahn, Cynthia. "Picturing the Text: Narratives in the 'Life' of Saints." *Art History* 13 / 1 (1990) 1-33.
- Hahn, Cynthia. "Seeing and Believing: The Construction of Sanctity in Early Medieval Saints' Shrines." *Speculum* 72 / 4 (1997) 1079-1106.
- Halleux, Robert and Paul Meyvaert. "Les origines de la *mappae clavicula*," *Archives d'histoire doctrinale et littéraire du moyen âge* 54 / 62 (1987) 7-58.
- Hanke, Wilhelm. *Kunst und Geist. Das philosophische und theologische Gedankengut der Schrift 'De diversis artibus' des Priesters und Mönchs Theophilus Rugerus*. Bonn: Hofbauer, 1962.
- Hannaway, Owen. "Georgius Agricola as Humanist." *Journal of the History of Ideas* 53 / 4 (1992) 553-560.
- Hanning, Robert W. "'Ut enim faber... sic creator': Divine Creation as Context for Human Creativity in the Twelfth Century." *Word, Picture, Spectacle*. Ed. Clifford Davidson. Kalamazoo, MI: Western Michigan University Press, 1984. 95-149.
- Harris, Nigel ed. *The Light of the soul, the Lumen anime C and Ulrich Putsch's Das Liecht der sel*. New York: Lang, 2007.
- Haye, Thomas. *Das lateinische Lehrgedicht im Mittelalter, Analyse einer Gattung*. Leiden: Brill, 1997.
- Head, Thomas. "Art and Artifice in Ottonian Trier." *Gesta* 36 / 1 (1997) 65-82.
- Heckscher, William S. "Relics of Pagan Antiquity in Mediaeval Settings." *Journal of the Warburg Institute* 1 / 3 (1938) 204-220.
- Heinemann, Otto. *Die Handschriften der Herzog-August Bibliothek*. Wolfenbüttel: Zwissler, 1884-19.
- Helbig, Jules. "Les châsses de Saint Domitian et de Saint Mengold de l'ancienne collégiale de Huy. Le reliquaire offert en don expiatoire à la cathédrale de Saint-Lambert de Liège. Les auteurs et l'histoire de ces reliquaires." *Bulletin de l'institut archéologique Liégeois* 13. Liège: H. Vaillant-Carmanne, 1877. 221-244.

- Henderson, George. "Late-Antique Influences in Some Mediaeval Illustrations of Genesis." *Journal of the Warburg and Courtauld Institutes* 25 / 3-4 (1962) 172-198.
- Heraclius. *Von den Farben und Künsten der Römer: Originaltext und Übersetzung*. Trans. Albert Ilg. Quellenschriften für Kunstgeschichte und Kunsttechnik des Mittelalters und der Renaissance, 4. Vienna: Wilhelm Braumüller, 1888.
- Herzog August Bibliothek. *Kataloge der Herzog August Bibliothek Wolfenbüttel, die Gudischen Handschriften* 9. Frankfurt am Main: Vittorio Klostermann, 1966.
- Hildegard of Bingen. *Physica, the Complete English Translation of Her Classic Work on Health and Healing*. Trans. Priscilla Throop. Rochester, VT: Healing Arts Press, 1998.
- Hoffman, Eva R. "Christian-Islamic Encounters on Thirteenth-Century Ayyubid Metalwork: Local Culture, Authenticity, and Memory," *Gesta* 43 / 2 (2004) 129-142.
- Hoffman, Eva R. "Pathways of Portability: Islamic and Christian Interchange from the Tenth to the Twelfth Century." *Art History* 24 / 1 (2001) 17-50.
- Höhlbaum, Konstantin. *Hansisches Urkundenbuch*. Leipzig: Halle, 1876.
- Holladay, Joan. "Tombs and Memory: Some Recent Books," *Speculum* 78 / 2 (2003) 440-450.
- Hucbald of St-Amand. *De harmonica institutione*. Patrologia Latina 132. Ed. J.-P. Migne. Paris: Garnier, 1844-1855 and 1862-1865. Electronic reprint. Alexandria, VA: Chadwyck-Healey, 1995.
- Hugenroth, Hermann. *Zum dichterischen Werk des Münsterchen Artzes und Humanisten Bernhard Rottendorff (1594-1671)*. Ed. Franz-Josef Jakobi, with contributions by Helmut Lahkamp and Bertram Haller. Münster: Aschendorff Verlag, 1991.
- Hugh of St. Victor. *De archa Noe; libellus de formatione arche*. Corpus christianorum continuatio mediaevalis 176-176A. Ed. Patrice Sicard. Turnhout: Brepols, 2001.
- Hugh of St. Victor, *De quinque septenis seu septenariis opusculum*. Jacques-Paul Migne, ed. Patrologia Latina 175.
- Hugh of St. Victor. *Didascalicon*. Patrologia Latina 176. Ed. J.-P. Migne. Paris: Garnier, 1844-1855 and 1862-1865. Electronic reprint. Alexandria, VA: Chadwyck-Healey, 1995.
- Hugh of St. Victor. *Didascalicon, a Medieval Guide to the Arts*. Ed. and trans. Jerome Taylor. 1961. Reprint. New York: Columbia University Press, 1991.
- Hunt, Richard W. "English Learning in the Late Twelfth Century." *Transactions of the Royal Historical Society*. Fourth Series, 19 (1936) 19-42.
- Illich, Ivan. *In the Vineyard of the Text: A Commentary to Hugh's Didascalicon*. Chicago: University of Chicago Press, 1993.
- Indici e Cataloghi IV: I codici Palatini della R. Bibl. Nazionale Centrale di Firenze*. Rome: Presso I principali librai, 1890.
- Iogna-Prat, Dominique. *Ordonner et Exclure: Cluny et la société chrétienne face à l'hérésie, au judaïsme et à l'islam, 1000-1150*. Paris, Aubier, 1998.
- Isidore of Seville. *Regula monachorum*. Patrologia Latina 103. Ed. J.-P. Migne. Paris: Garnier, 1844-1855 and 1862-1865. Electronic reprint. Alexandria, VA: Chadwyck-Healey, 1995.
- Jaeger, C. Stephen. *The Envy of Angels: Cathedral Schools and Social Ideals in Medieval Europe, 950-1200*. Philadelphia: University of Pennsylvania Press, 1994.

- Jaeger, C. Stephen. "Pessimism in the Twelfth-century 'Renaissance'." *Speculum* 78 / 4 (2003): 1151-1183.
- Johnson, Edgar N. "Bishop Benno II of Osnabrück." *Speculum* 16 / 4 (Oct. 1941) 389-403.
- Johnson, James Rosser. *The Radiance of Chartres: Studies in the Early Stained Glass of the Cathedral*. Columbia University Studies in Art History and Archaeology 4. New York: Random House, 1965.
- Johnson, Rozelle Parker. "The Manuscripts of the *Schedula* of Theophilus Presbyter." *Speculum* 13 / 1 (1938) 86-103.
- Johnson, Rozelle Parker. "Notes on Some Manuscripts of the *Mappae Clavicula*." *Speculum* 10 / 1 (1935) 72-81.
- Johnson, Rozelle Parker. "Some Continental Manuscripts of the *Mappae Clavicula*." *Speculum* 12 / 1 (1937) 84-103.
- Jones, Leslie Webber. "The Provenance of the London Vitruvius." *Speculum* 7 / 1 (1932) 64-70.
- Jones, Peter Murray. *Medieval Medicine in Illuminated Manuscripts*. 2nd ed. Originally published as *Medieval Medical Miniatures*. 1984. Reprint. London: British Library, 1998.
- Joris, Andre. *La Ville de Huy au moyen âge, des origines à la fin du XIVe siècle*. Paris: Société d'édition "Les belles lettres," 1959.
- Kadner, Daniela. "Klostervisitation und Reformation im albertinischen Sachsen 1539/40; Das Beispiel Altzelle." *Jahrbuch der Saatlischen Schlösser, Burgen und Gärten in Sachsen* 10 (2002) 120-126.
- Ketelsen, Thomas. *Künstlerviten, Inventare, Kataloge; drei Studien zur Geschichte der kunsthistorischen Praxis*. Ammersbek bei Hamburg: Lottbeck Jensen, 1990.
- Kornbluth, Geneva. "The Alfred Jewel: Reuse of Roman Spolia." *Medieval Archaeology* 33 (1989) 32-37.
- Krinsky, Carol Herselle. "Seventy-Eight Vitruvius Manuscripts." *Journal of the Warburg and Courtauld Institutes* 30 (1967) 36-70.
- Kris, Ernst, and Otto Kurz. *Legend, Myth, and Magic in the Image of the Artist: A Historical Experiment*. Trans. Alistar Laing. New Haven: Yale University Press, 1979.
- Kristeller, Paul Oskar. "The School of Salerno: Its Development and its Contribution to the History of Learning." *Studies in Renaissance Thought and Letters*. 1956. Reprint. Rome: Edizioni di storia e letteratura, 1984.
- Krüger, Ekkehard. *Die Schreib- und Malwerkstatt der Abtei Helmarshausen bis in die Zeit Heinrichs des Löwen*. Darmstadt: Selbstverlag der Hessischen Historischen Kommission Darmstadt, 1972.
- Kunst und Kultur in Weserraum, 800-1600*. Exh. cat. Land Nordrhein-Westfalen, Corvey, 1966. Münster: Aschendorff, 1966.
- Ladner, Gerhart. B. *Ad imaginem dei: The Image of Man in Mediaeval Art*. Latrobe, PA: Archabbey Press, 1965.
- Ladner, Gerhart B. "St. Augustine's Conception of the Reformation of Man to the Image of God." *Images and Ideas in the Middle Ages, Selected Studies in History and Art* 2. Rome: Edizioni di Storia e Letteratura, 1983. 595-608.

- Ladner, Gerhart. B. "Terms and Ideas of Renewal." *Renaissance and Renewal in the Twelfth Century*. Cambridge, MA: Harvard University Press, 1982. 1-33.
- Lasko, Peter. "Roger of Helmarshausen, Author and Craftsman: Life, Sources of Style, and Iconography." *Objects, Images and the Word*. Ed. Colum Hourihane. Princeton: Princeton University Press, 2003. 180-201.
- Lasko, Peter. "Anthropomorphic Evangelist Symbols: Lower Saxony, Roger of Helmarshausen, and Insular Iconographic Tradition." *England and the Continent in the Middle Ages: Studies in Memory of Andrew Martindale*. Harlaxton Medieval Studies. Ed. J. Mitchell. Stamford: Shaun Tyas, 2000. 15-27.
- Lasko, Peter. *Ars Sacra 800-1200*. 2nd ed. New Haven: Yale University Press, 1994.
- Lasko, Peter. "The Enger Cross." *Studies on Metalwork, Ivories and Stone*. London: Pindar Press, 1994. 197-236.
- Lauer, Philippe, et al., eds. *Bibliothèque Nationale, catalogue général des manuscrits latins 2*. Paris, 1940.
- Laurent, Marcel. "Godefroid de Claire et la croix de Suger à l'Abbaye de Saint-Denis." *Revue Archéologique* 19 (1924) 79-87.
- Leen, Ann. "Cicero and the Rhetoric of Art." *The American Journal of Philology* 112 / 2 (1991): 229-245.
- LeClercq, Jean. *The Love of Learning and the Desire for God: A Study of Monastic Culture*. Trans. Catherine Misrahi. New York: Fordham University Press, 1962.
- Legner, Anton, ed. *Ornamenta Ecclesiae*. 3 vols. Exh. cat. Cologne: Schnütgen-Museum, 1985.
- Lehmann, Paul. "Aus dem Leben... eines Helfers der Philologen." *Archiv für Kulturgeschichte* 28 (1938) 163-190.
- Lessing, Gotthold Ephraim. "Theophili Presbyteri Diversarum Artium Schemata." Ed. Christian Leiste. *Zur Geschichte und Litteratur aus den Schätzen der Herzoglichen Bibliothek zu Wolfenbüttel* 6. Brunswick: Buchhandlung des Fürstlichen Waysenhauses, 1781.
- Lessing, Gotthold Ephraim. *Vom Alter der Oelmalerey aus dem Theophilus Presbyter*. Brunswick: Buchhandlung des Fürstlichen Waysenhauses, 1774. Reprinted as "Vom Alter der Oelmalerei aus dem Theophilus Presbyter." *Gesammelte Werke* 8. Leipzig: Göschen, 1856. 285-336.
- Liste chronologique des édits et ordonnances de la principauté de Stavelot et de Malmédy, de 650 à 1793*. Brussels: Devroye, 1852.
- Löffler, Anette. "Handschriftenmigration unter den Zisterzienserklöstern Georgenthal und Altzelle im Mittelalter." *Codices manuscripti* 36 (2001) 1-12.
- Long, Pamela. *Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance*. Baltimore: Johns Hopkins University Press, 2001.
- Lowden, John. "Concerning the Cotton Genesis and Other Illustrated Manuscripts of Genesis." *Gesta* 31 / 1 (1992) 40-53.
- Manhes-Deremble, Colette. *Les vitraux narratifs de la Cathédrale de Chartres: étude iconographique*. Corpus vitrearum, France: études 2. Paris: Léopard d'Or, 1993.
- Manitius, M. "Die Dresdner Handschrift des Theophilus." *Mitteilungen des Instituts für Österreichische Geschichtsforschung* 26 (1905) 627-635.

- Marbode, Bishop of Rennes. *Lapidari: la magia delle pietre preziose*. Ed. and trans. Bruno Basile. Rome: Carocci, 2006.
- Mariaux, Pierre-Alain. "La 'double' formation de l'artiste selon Théophile: pour une lecture différente des prologues du '*de diversis artibus*.'" *Florilegium: scritti di storia dell'arte in onore di Carlo Bertelli*. Milano: Electa, 1995. 42-45.
- Martindale, Andrew. *The Rise of the Artist in the Middle Ages and Early Renaissance*. London: Thames and Hudson, 1972.
- Maxwell, Robert A. *The Art of Medieval Urbanism: Parthenay in Romanesque Aquitaine*. University Park, PA: Pennsylvania State University Press, 2007.
- Mazal, Otto. *Byzanz und das Abendland, Ausstellung der handschriften- und inkunabelsammlung der Österreichischen Nationalbibliothek, Handbuch und Katalog*. Graz: Akademische Druck - u. Verlagsanstalt, 1981.
- McCague, Hugh. "Le don des métiers: les rencontres avec la théologie dans le *de diversis artibus* du prêtre Théophile." *Discours et savoirs: encyclopédies médiévales*. Cahiers Diderot 10. Ed. Bernard Baillaud, Jérôme de Gramont, Denis Hüe. Rennes: Presses Universitaires de Rennes, 1998. 47-66.
- McPeak, William. Review of Halleux and Yans's edition of Agricola's *Bermannus (le mineur): un dialogue sur les mines* (Paris: Les belles lettres, 1990) in *Isis* 83 / 1 (1992) 124-125.
- McVaugh, Michael. *A Source Book in Medieval Science*. Edward Grant, ed. Cambridge: Harvard University Press, 1974.
- Melczer, Elizabeth. "Monastic Goals in the Aesthetics of Saint Bernard." *Studies in Cistercian Art and Architecture*. Ed. Meredith Lillich. Kalamazoo: Cistercian Publications, 1982. 31-44.
- Mende, Ursula. "Romanische Bronzen. Hildesheim und sein Umkreis." *Abglanz des Himmels*. Ed. Michael Brandt. Exh. cat. Hildesheim: Schnell Steiner, 2001.
- Merrifield, Mary P. ed. *Original Treatises, Dating from the XIIth to XVIIIth centuries on the Arts of Painting, in Oil, Miniature, Mosaic, and on Glass; of Gilding, Dyeing, and the Preparation of Colours and Artificial Gems 2*. London: J. Murray, 1849. 166-257.
- Minnis, Alastair. J. *Medieval Theory of Authorship: Scholastic Literary Attitudes in the Later Middle Ages*. London: Scholar Press, 1984.
- Minnis, Alastair. J., A. B. Scott, and David Wallace. *Medieval Literary Theory and Criticism*. Oxford: Clarendon Press, 1988.
- Monumenta Corbeiensia*. Bibliotheca rerum germanicarum I. Berlin: Weidmann, 1864.
- Morhof, Daniel George. *Polyhistor sive de notitia auctorum et rerum commentarii, quibus praeterea varia ad omnes disciplinas consilia et subsidia proponuntur*. Lübeck: Böckmannus, 1688-1692.
- Morrison, Karl F. "Otto of Freising's Quest for the Hermeneutic Circle." *Speculum* 55 / 2 (1980) 207-236.
- Murdoch, Brian, ed. *German Literature of the Early Middle Ages*. Suffolk, UK: Camden, 2004.
- Murphy, James J. *Latin Rhetoric and Education in the Middle Ages and Renaissance*. Aldershot: Ashgate/Variorum, 2005.
- Murphy, James J. *Rhetoric in the Middle Ages, A History of Rhetorical Theory from Saint Augustine to the Renaissance*. Tempe, Arizona: Arizona Center for Medieval and Renaissance Studies, 2001.

- Nauert, Charles G. Jr. "Magic and Skepticism in Agrippa's Thought." *Journal of the History of Ideas* 18 / 2 (1957) 161-182.
- Necipoglu, Gülru. *The Topkapi Scroll - Geometry and Ornament in Islamic Architecture: Topkapi Palace Museum Library MS H. 1956*. Santa Monica, CA: Getty Center for the History of Art and the Humanities, 1995.
- Nees, Lawrence. "The Originality of the Early Medieval Artists." *Literacy, Politics and Artistic Invention in the Early Medieval West*. Papers Delivered at 'A Symposium on Early Medieval Culture,' Bryn Mawr College, Bryn Mawr, PA. Ed. Celia Chazelle. New York: New York University Press, 1989. 77-109.
- Nichols, Stephen and Siegfried Wenzel, eds. *The Whole Book: Cultural Perspectives on the Medieval Miscellany*. Ann Arbor: University of Michigan Press, 1996.
- Nicolai, Eric. *Hermeneutical Principles in the Didascalicon of Hugh of St. Victor*. Rome: Pontificium Aethenaeum Sanctae Crucis, 1996.
- Oltrogge, Doris. "'Cum sesto et rigula,' L'organisation du savoir technologique dans le *Liber diversarum artium* de Montpellier et dans le *de diversis artibus* de Théophile." *Discours et Savoirs: Encyclopédies Médiévales*. Ed. Bernard Baillaud, Jérôme de Gramont, Denis Hüe. Cahiers Diderot 10. Rennes: Presses Universitaires de Rennes, 1998. 67-99.
- Österreichisches Nationalbibliothek. *Tabulae codicum manu scriptorum, praeter graecos et orientalis in bibliotheca palatina vindobonensi asservatorum*. Graz: Akademische Druck und Verlagsanstalt, 1965.
- Ouy, Gilbert. "Jean de Montreuil et l'introduction de l'écriture humanistique en France au début du XVe siècle." *Miniatures, Scripts, Collections, Essays Presented to G.I. Lieftinck*. Litterae textuales 4. Amsterdam: A. L. Van Gendt, 1976. 53-61.
- Palladius, *Traité d'Agriculture*. Ed. René Martin. Paris: Les belles lettres, 2003.
- Panofsky, Erwin. *Abbot Suger on the Abbey Church of St-Denis and its Art Treasures*. 2nd ed. Princeton, NJ: Princeton University Press, 1979.
- Parkes, Malcolm Beckwith. "Archaizing Hands in English Manuscripts." *Books and Collectors, 1200-1700: Essays Presented to Andrew Watson*. Ed. James P. Carley Colin G. C. Tite, eds. London: British Library, 1997. 101-144.
- Parkes, Malcolm Beckwith. *Scribes, Scripts and Readers: Studies in the Communication, Presentation and Dissemination of Medieval Texts*. London: Hambledon, 1991.
- Parkes, Malcolm Beckwith and Andrew G. Watson. *Medieval Scribes, Manuscripts and Libraries; Essays Presented to N. R. Ker*. London: Scholar Press, 1978.
- Patterson, Lee. "On the Margin: Postmodernism, Ironic History, and Medieval Studies." *Speculum* 65 / 1 (1990): 87-108.
- Perry, Ellen. "Notes on Diligentia as a Term of Roman Art Criticism." *Classical Philology* 95 / 4 (2000) 445-458.
- Petry, Ray. "Three Medieval Chroniclers: Monastic Historiography and Biblical Eschatology in Hugh of St. Victor, Otto of Freising, and Odericus Vitalis." *Church History* 34 / 3 (1965) 282-293.
- Pfeiffer, Hermann and Bertholdo Cernik. *Catalogus codicum manu scriptorum, qui in Bibliothek Canoniorum Regularium S. Augustini Claustroneoburgi asservantur*. Klosterneuburg: Braumüller, 1931.
- Pliny the Elder. *The Historie of the World, Commonly Called the Naturall Historie of C. Plinius Secundus*. Trans. Philemon Holland. London: Adam Islip, 1601.

- Purcell, William H. *Ars Poetriae, Rhetorical and Grammatical Invention at the Margin of Literacy*. Columbia, SC: University of South Carolina, 1996.
- Pütz, Regina. *Die Bibliothek des Klosters St. Pantaleon in Köln bis zum 13. Jahrhundert: Studien zum geistigen Leben*. Ph.D. diss. Bonn: Regina Pütz, 1998.
- Quain, Edwin A. "The Medieval Accessus ad Auctores." *Traditio* 3 (1945) 215-264.
- Rädle, Fidel. "Abt Wibald und der Goldschmied G." *Mittellateinisches Jahrbuch* 10 (1975) 74-79.
- Raff, Thomas. "Spolien : Baumaterial oder Bedeutungsträger? = Spolia: building material or bearer of meaning?" *Daidalos* 58 (1995) 64-71.
- Raspe, Rudolph Erich. *A Critical Essay on Oil-painting; Proving that the Art of Painting in Oil was Known Before the Pretended Discovery of John and Hubert van Eyck; to which are Added, Theophilus De arte pingendi, Eraclius De artibus romanorum, and a review of Farinator's Lumen animæ*. London: H. Goldney and T. Cadell, 1781.
- Ravaisson, Félix and Guillaume Libri. *Catalogue Général des Manuscrits des Bibliothèques Publiques des Départements I* (Autun (Séminaire), Laon, Montpellier, Montpellier (Ecole de médecine), Albi). Paris: Imprimerie nationale 1849.
- Reinburg, Virginia. "Remembering the Saints." *Memory and the Middle Ages*. Ed. Nancy Netzer and Virginia Reinburg. Chestnut Hill, MA: Boston College Museum of Art, 1995. 17-32.
- Remensnyder, Amy. "Legendary Treasury at Conques: An Examination of the Dynamics of New Commemorative Meanings Regarding the Foundation Legend of an Eleventh-century Monastic Community in Southwestern France: Reliquaries and Imaginative Memory." *Speculum* 71 / 4 (1996) 884-906.
- Review of *Veteri monimenta, in quibus praecipue musiva opera, sacrarum profanarumque aedium structura, ac nonnulli antiqui ritus dissertationibus iconibusque illustrantur*, by Joanne Ciampino Romano (Rome: Komareck, 1690). *Acta eruditorum*. August, 1690. 419-420.
- Reynolds, Leighton Durham, and Peter K. Marshall. *Texts and Transmission: A Survey of the Latin Classics*. Oxford: Clarendon Press, 1983.
- Reynolds, Leighton Durham and Nigel Guy Wilson. *Scribes and Scholars, A Guide to the Transmission of Greek and Latin Literature*. Oxford: Clarendon Press, 1991.
- Rhein und Maas, Kunst und Kultur, 800-1400*, exh. cat. Cologne: Schnütgen Museum, 1972.
- Röhrig, Floridus. "Godefridus von Huy in Verdunö eine bisher unbeachtete Quelle zum Godefroidproblem." *Aachener Kunstblätter* 32 (1966) 83-91.
- Ronig, Franz, J., ed. *Schatzkunst Trier, Forschungen und Ergebnisse*. Trier: Spee-Verlag, 1991.
- Roosen-Runge, Heinz. "Die Buchmalereirezepte des Theophilus." *Münchener Jahrbuch der bildenden Kunst* 3-4 (1952-53) 159-171.
- Roosen-Runge, Heinz. "Die Farben- und Malrezepte des 1. Buches der *Schedula diversarum artium* des Theophilus Presbyter und die Buchmalerei des frühen Mittelalters." *Actes du XVIIème Congrès international d'histoire de l'art*. The Hague: Imprimerie Nationale des Pays-Bas, 1955. 221-228.
- Roosen-Runge, Heinz. *Farbgebung und Technik frühmittelalterlicher Buchmalerei. Studien zu den Traktaten "Mappae Clavicula" und "Heraclius"*. Berlin: Deutscher Kunstverlag, 1967.

- Roosen-Runge, Heinz. "Die Tinte des Theophilus." *Festschrift Luitpold Dussler*. Munich: Deutscher Kunstverlag, 1972. 87-112.
- Rosewell, Roger. *Medieval Wall Paintings in English and Welsh Churches*. Woodbridge, UK, 2008.
- Rouse, Mary A. and Richard H. "Florilegia and the Latin Classical Authors of Twelfth- and Thirteenth-century Orléans." *Viator* 10 (1979) 131-160.
- Rouse, Mary A. and Richard H. "The Texts called *lumen anime*" *Archaem Fratrum Praedictorum* 4 (1971) 5-113.
- Rouse, Richard H. and Mary A. "Ordinatio and compilatio revisited." *Ad litteram; Authoritative Texts and their Medieval Readers*. Ed. Mark Jordan and Kent Emery. Notre Dame: University of Notre Dame Press, 1992. 113-134.
- Rousseau, Felix. *La Meuse et le Pays Mosan en Belgique, leur importance historique avant le XIIe siècle*. Extrait des annales de la société archéologique 39. Namur: Société archéologique et maison d'éditions ad. Wesmael-Charlier, 1930.
- Royce-Roll, Donald. *The Importance of Two Twelfth-century Glass Texts, Theophilus' "De diversis artibus" and Eraclius' "De coloribus et artibus romanorum," for understanding the technology and the colors of Romanesque stained glass*. Diss. Cornell University, 1988.
- Royce-Roll, Donald. "Twelfth-Century Stained Glass Technology." *Avista Forum* 10-11 / 2-1 (1997 / 1998) 13-22.
- Rudolph, Conrad. "Bernard of Clairvaux's Apologia as a Description of Cluny, and the Controversy over Monastic Art." *Gesta* 37 / 1-2 (1988) 125-132.
- Rudolph, Conrad. "The 'Principal Founders' and the Early Artistic Legislation of Cîteaux," *Studies in Cistercian Art and Architecture* 3. Ed. Meredith Lillich. Kalamazoo: Cistercian Publications, 1987. 1-45.
- Rudolph, Conrad. *The "Things of Greater Importance," Bernard of Clairvaux's Apologia and the Medieval Attitude Toward Art*. Philadelphia: University of Pennsylvania Press, 1990.
- Rudolph, Conrad. *Violence and Daily Life: Reading, Art and Polemics in the Cîteaux Moralia in Job*. Princeton: Princeton University Press, 1997.
- Rupert of Deutz, *Commentaria in evangelium Sancti Johannis*. Ed. Hrabanus Haacke. Corpus Christianorum, Continuatio Mediaevalis 9. Turnhout: Brepols, 1969.
- Rupert of Deutz, *De gloria et honore fillii hominis super Mattheum*. Ed. Hrabraus Haacke. Corpus Christianorum, Continuatio Mediaevalis 29. Turnhout: Brepols, 1979.
- Rupert of Deutz. *De sancta trinitate et operibus eius*. Ed. Hrabanus Haacke. Corpus christianorum, continuatio mediaevalis 21-24. Turnhout: Brepols, 1971-1972.
- Rupert de Deutz. *Les Oeuvres du Saint Esprit*. Trans. Jean Gribomont. Sources Chrétiennes 131. Paris: Editions du Cerf, 1967.
- Rupert of Deutz. *Liber de divinis officiis*. Ed. Hrabanus Haacke. Corpus christianorum, continuatio mediaevalis 7. Turnhout: Brepols, 1967.
- La Salle aux trésors, chefs-d'œuvre de l'art Roman et Mosan*. Brussels: Musées royaux d'art et d'histoire, 1999.
- Sauerländer, Willibald. "Antiqui et Moderni at Reims," *Gesta* 42 / 1 (2003) 19-37.
- Schapiro, Meyer. *Romanesque Art, Selected Papers*. New York: Braziller, 1977.

- Schleissner, Margaret R., ed. *Manuscript Sources of Medieval Medicine, A Book of Essays*. New York: Garland, 1995.
- Schmidt, L. *Beiträge zur Geschichte der wissenschaftlichen Studien in sächsischen Klöstern I*. Dresden, 1897.
- Scholtka, Annette. "Theophilus Presbyter: Die maltechnischen Anweisungen und ihre Gegenüberstellung mit naturwissenschaftlichen Untersuchungsbefunden" *Zeitschrift für Kunsttechnologie und Konservierung* 6 / 1 (1992) 1-53.
- Schuler, Stefan. *Vitruv im Mittelalter, die Rezeption von 'de architectura' von der Antike bis in die frühe Neuzeit*. Cologne: Böhlau Verlag, 1999.
- Sears, Elizabeth. *The Ages of Man: Medieval Interpretations of the Life Cycle*. Princeton: Princeton University Press, 1986.
- Silvestre, Hubert. *Le Chronicon Sancti Laurentii Leodiensis, dit de Rupert de Deutz; étude critique*. Recueil de travaux d'histoire et de philologie 3, fasc. 43. Leuven: Université Catholique de Louvain, 1952.
- Silvestre, Hubert. *Le Ms Bruxellensis 10147-58 (S. XII-XIII) et son Compendium artis picturae*. Brussels: Palais des Académies, 1954.
- Singer, Dorothea Waley. *Catalogue of Latin and Vernacular Alchemical Manuscripts in Great Britain and Ireland*. Brussels: M. Lamertin, 1928.
- Simmler, Josias, ed. *Appendix bibliothecae Conradi Gesneri*. Tiguri apud Christophorum, Froshoverum, Mense Martio, 1555. Reprinted in *Milliaria, Faksimiledrucke zur Dokumentation der Geistesentwicklung* 5. Ed. Hellmut Rosenfeld and Otto Zeller. Osnabruck: Otto Zeller Verlagsbuchhandlung, 1966.
- Simmler, Josias, ed. *Epitome, bibliothecae Conradi Gesneri, conscripta primum a Conrado Lychosthene Rubeaquensi, nunc denuo recognita et plus quam bis mille authorum accessione (qui omnes asterisco signati sunt) locupletata: per Josiam Simmlerum Tigurinum*. Tiguri apud Christophorum, Froshoverum, Mense Martio, 1555. Rpt. *Milliaria faksimiledruck zur Dokumentation der Geistesentwicklung* V. Hellmut Rosenfeld and Otto Zeller, eds. Osnabruck: Otto Zeller Verlagsbuchhandlung, 1966.
- Sinapi, Karen. *The de diuersis artibus of Theophilus and the Medieval Tradition of the Recipe Book*. Waltham, MA: Brandeis University, 1975.
- Smalley, Beryl. *The Study of the Bible in the Middle Ages*. 3rd ed. Oxford: Blackwell, 1983.
- Smith, Cyril and John Hawthorne. "Mappae Clavicula, a Little Key to the World of Medieval Techniques." *Transactions of the American Philosophical Society*. New Series 64, pt. 4 (1974) 3-128.
- Smith, Pamela H. *The Body of the Artisan: Art and Experience in the Scientific Revolution*. Chicago: University of Chicago Press, 2004.
- Southern, Richard W. *Scholastic Humanism and the Unification of Europe* 1. Cambridge, MA: Blackwell, 1995.
- Spiegel, Gabrielle M. "History, Historicism, and the Social Logic of the Text in the Middle Ages." *Speculum* 65 / 1 (1990): 59-86.
- Spijker, Ineke van 't. *Fictions of the Inner Life. Religious Literature and Formation of the Self in the Eleventh and Twelfth Centuries*. Turnhout: Brepols, 2004.
- Spijker, Ineke van 't. "Model Reading: Saints' Lives and Literature of Religious Formation in the Eleventh and Twelfth Centuries." 'Scribere sanctorum gesta,'

- recueil d'études d'hagiographie médiévale offertes à Guy Philippart*. Ed. Étienne Renard et al. Turnhout: Brepols, 2005. 135-156.
- Stannard, Jerry. *Herbs and Herbalism in the Middle Ages and Renaissance*. Ed. Katherine E. Stannard and Richard Kay. Brookfield, VT: Ashgate Variorum, 1999.
- Steinberg, S. H. "A Portable Altar in the British Museum." *Journal of the Warburg Institute* 2 / 1 (1938) 71-72.
- Stiegemann, Christoph and Matthias Wemhoff, eds. *Canossa 1077, Erschütterung der Welt: Geschichte, Kunst und Kultur am Aufgang der Romanik*. 2 vols. Exh. cat. Munich: Hirmer Verlag, 2006.
- Stiegemann, Christoph and Hiltrud Westermann-Angerhausen, eds. *Schatzkunst am Aufgang der Romanik, der Paderborner Dom-Tragaltar und sein Umkreis*. Munich: Hirmer, 2006.
- Stiegman, Emero. "Saint Bernard: The Aesthetics of Authenticity." *Studies in Cistercian Art and Architecture* 2. Ed. Meredith Lillich. Kalamazoo, Cistercian Publications, 1984. 1-13.
- Stiennon, Jacques and Joseph Deckers, eds. *Exposition Wibald, abbé de Stavelot-Malmédy et de Corvey (1120-1158)*. Exh. cat. Stavelot: Musée de l'ancienne abbaye, 1982.
- Swarzenski, George. "Aus dem Kunstkreis Heinrichs des Löwen." *Städel-Jahrbuch* 7-8 (1933) 241-397.
- Takács, Vilmos. *Theophilus Presbyter - A különféle művészegkö*. Budapest, 1986.
- Talbot, Charles H. "The Cistercian Attitude Towards Art: The Literary Evidence." *Cistercian Art and Architecture in the British Isles*. Cambridge: Cambridge University Press, 1986. 56-64.
- Texier, Abbé Jacques-Rémi-Antoine. "Analyse de Traité de Théophile." *Annales Archéologiques*. Ed. Edouard Didron. Paris 1846. Reprinted in *Dictionnaire d'orfèvrerie, de gravure et de ciselure chrétiennes*. Ed. J.-P. Migne. Troisième et dernière encyclopédie théologique 27. Petit-Montrouge: Migne, 1857.
- Theobald, Wilhelm. *Technik des Kunsthandwerks im zehnten Jahrhundert; Des Theophilus Presbyter Diversarum Artium Schedula*. Berlin: Verein Deutscher Ingenieur, 1933.
- Theophilus Presbyter. *De diversis artibus*. Ed. and trans. C.R. Dodwell. New York: Thomas Nelson and Sons, Ltd., 1961.
- Theophilus Presbyter. *De diversis artibus; manuale di tecnica artistica medievale*. Ed. Adriano Caffaro. Salerno: Palladio, 2000.
- Theophilus Presbyter. *Diversarum artium schedula liber secundus Theophilus, Presbyter*. Ed. Georges Bontemps. Paris: Libraire du dictionnaire des arts et manufactures, 1876.
- Theophilus, Presbyter. *Essai sur divers arts en trois livres*. Ed. André Blanc. Paris: Picard, 1980.
- Theophilus, Presbyter. *Libri 3 seu Diversarum artium schedula: Théophile: Essai sur divers arts*. Ed. Charles de L'Escalopier, introduction by J.-Marie Guichard. Paris 1843. Reprint. Nogent-le-Roi: Librairie des arts et métiers, 1977.
- Theophilus Presbyter. *On Divers Arts, The Foremost Medieval Treatise on Painting, Glassmaking and Metalwork*. Ed. and trans. John G. Hawthorne and Cyril Stanley Smith. New York: Dover, 1963.

- Theophilus Presbyter. *Schedula Diversarum Artium*. Ed. Albert Ilg. Quellenschriften für Kunstgeschichte und Kunsttechnik des Mittelalters 7. Vienna: W. Braumüller, 1874.
- Theophilus Presbyter. *Theophilus, qui et Rugerus, presbyteri et monachi, libri III. de diversis artibus: seu diversarum artium schedula*. Ed. R. Hendrie. London: J. Murray, 1847.
- Theophilus Presbyter. *Traité des divers arts*. Lyon: Editions du Cosmogone, 1998.
- Thompson, Daniel V. "Liber de Coloribus Illuminatorum Siue Pictorum from Sloane Ms. No. 1754." *Speculum* 1 / 3 (1926) 280-307.
- Thompson, Daniel V. "Liber de Coloribus: Addenda and Corrigenda." *Speculum* 1 / 4 (1926) 448-450.
- Thompson, Daniel V. "Medieval Color-Making: Tractatus qualiter quilibet artificialis color fieri possit from Paris, B. N., MS. latin 6749b." *Isis* 22 / 2 (1935) 456-468.
- Thompson, Daniel V. "More Mediaeval Color-making: Tractatus de Coloribus from Munich, Staatsbibliothek, MS. Latin 444." *Isis* 24/2 (1936) 382-396.
- Thompson, Daniel V. Review of Wilhelm Theobald, *Technik des Kunsthandwerks im zehnten Jahrhundert: Des Theophilus Presbyter Diversarum Artium Schedula neu herausgegeben, übersetzt und erläutert*. *Speculum* 10 / 4 (Oct. 1935) 437-440.
- Thompson, Daniel V. "The Schedula of Theophilus Presbyter." *Speculum* 7 / 2 (1932) 199-220.
- Thompson, Daniel V. "Theophilus Presbyter: Words and Meaning in Technical Translation." *Speculum* 42 / 2 (1967) 313-339.
- Thompson, Daniel V. "Trial Index to Some Unpublished Sources for the History of Mediaeval Craftsmanship." *Speculum* 10 / 4 (1935) 410-431.
- Tosatti, Silvia Bianca. *Trattati medievali di tecniche artistiche*. Milan: Jaca Book, 2007.
- Translatio S. Modualdi*, Monumenta Germaniae Historica, Scriptorum 8.
- Tristram, Ernest William. *English Medieval Wall Painting; The Twelfth Century*. Compiled in collaboration with William George Constable. London: Courtauld Institute of Art, 1944.
- Ugé, Karine. "Creating a Usable Past in the Tenth Century: Folcuin's 'Gesta' and the Crises at Saint-Bertin." *Studi Medievali*. Ser. 3, 37 / 2 (1996) 887-903.
- Van Engen, John. "'The Crisis of Cenobitism' Reconsidered: Benedictine Monasticism in the Years 1050-1150." *Speculum* 61 / 2 (1986) 269-304.
- Van Engen, John. *Rupert of Deutz*. Berkeley: University of California Press, 1983.
- Van Engen, John. "Theophilus Presbyter and Rupert of Deutz: the Manual Arts and Benedictine Theology in the Early Twelfth Century." *Viator* 11 (1980) 147-163.
- Virgil. *Georgics*. Ed. Richard F. Thomas. Cambridge Greek and Latin Series. Cambridge: Cambridge University Press, 1988.
- Virgil, Polidore. *The works of the famous antiquary, Polidore Virgil containing the original of all arts, sciences, mysteries, orders, rites, and ceremonies, both ecclesiastical and civil : a work useful for all divines, historians, lawyers, and all artificers*. Trans. Thomas Langley. London: Printed for Simon Miller at the Star in St. Paul's Church-yard, 1663.
- Vita Meinwerchi*. Monumenta Germaniae Historica, Rer. Germ. 59.
- Vitruvius Pollio. *On Architecture*. Ed. and trans. Frank Granger. 1931. Reprint. Cambridge, MA: Harvard University Press, 2002.

- Vogtherr, Thomas. "Handlungspielräume Bischöflicher Parteinahme in Westfalen." *Vom Umbruch zur Erneuerung? Das 11. und beginnende 12. Jahrhundert- Positionen der Forschung*. Ed. Jörg Jarnut and Matthias Wemhoff. Munich: Wilhelm Fink, 2006. 417-425.
- Von Falke, Otto and H. Frauberger. *Deutsche Schmelzarbeiten des Mittelalters und andere Kunstwerke der kunsthistorischen Ausstellung zu Düsseldorf*. Frankfurt am Main: Baer, 1904. 13-17.
- Von Falke, Otto. "Das Kunstgewerbe im Mittelalter." *Illustrierte Geschichte des Kunstgewerbes* I. Ed. Georg Lehnert. Berlin: Oldenbourg, 1907. 190-420.
- Von Schlosser, Julius. *Die Kunstliteratur, ein Handbuch zur Quellenkunde der neueren Kunstgeschichte*. Rpt. 1924. Vienna: Anton Schroll, 1985.
- Waetzoldt, Stephan. "Systematisches Verzeichnis der Farbnamen." *Münchener Jahrbuch der bildenden Kunst* 3 / 4 (1952-3) 6-14.
- Waitz, Georg ed. *Chronica regia coloniensis (Annales maximi colonienses) cum continuationibus in monasterio S. Pantaleonis scriptis, aliisque historiae coloniensis monumentis, partim ex Monumentis Germaniae historicis recusa*. Scriptorum rerum germanicarum in usum scholarum, editi 18. Hannover: impensis bibliopolii Hahniani, 1880.
- Wallert, A. "De waardering van de oudheid en de techniek van de schilderkunst in de middeleeuwen [The appreciation of antiquity and the technique of painting in the Middle Ages]." *Dwergen op de schouders van reuzen : studies over de receptie van de oudheid in de middeleeuwen*. Ed. H. van Dijk and E.R. Smits. Groningen: Egbert Forsten, 1990. 139-149.
- Watson, Andrew. *Medieval Manuscripts in Post-medieval England*. Burlington, VT : Ashgate/Variorum, 2004.
- Westermann-Angerhausen, Hiltrud. "Spolie und Umfeld in Egeberts Trier." *Zeitschrift für Kunstgeschichte* 50 / 3 (1987) 305-336.
- Westermann-Angerhausen, Hiltrud. "Zwei romanische Thuribula im Trierer Domschatz und Überlegungen zu Theophilus und dem Gozbert-Rauchfass." *Zeitschrift des Deutschen Vereins für Kunstwissenschaft* 42 / 2 (1988) 45-60.
- Westphal, Herbert and Francois Schweizer. "Beobachtungen an dem Tragaltar des Rogerus von Helmarshausen aus dem Paderborner Domschatz: die Untersuchung der Metall- und Dekorationstechnik, eine Quelle kulturhistorischer Erkenntnisse?" *Medieval reliquary shrines and precious metalwork: proceedings of a conference at the Musée d'Art et d'Histoire*. Geneva, 12-15 September 2001. Ed. Kilian Anheuser. London: Archetype Publications, 2006. 71-74.
- White, Lynn, Jr. "Theophilus Redivivus" *Technology and Culture* 5 (1964) 224-233.
- William of Malmesbury, *Gesta regum Anglorum*. Patrologia Latina 179. Ed. J.-P. Migne. Paris: Garnier, 1844-1855 and 1862-1865. Electronic reprint. Alexandria, VA: Chadwyck-Healey, 1995.
- Winstanley, Denys Arthur. "Halliwell Phillipps and Trinity College Library." *The Library, Transactions of the Bibliographical Society*. London: Bibliographical Society, 1948. 250-282.
- Wirth, Karl-August. "Bemerkungen zum Nachleben Vitruvs im 9. und 10. Jahrhundert und zu dem Schlettstädter Vitruv-Codex." *Kunstchronik* 20 (1967) 281-291.

- Wittekind, Susanne. *Altar - Reliquiar - Retabel. Kunst und Liturgie bei Wibald von Stablo. Pictura et Poesis. Interdisziplinäre Studien zum Verhältnis von Literatur und Kunst* 17. Cologne: Böhlau 2003.
- Wittekind, Susanne. "Caput et corpus: die Bedeutung der Sockel von Kopfreliquiaren." *Reliquiare im Mittelalter*. Ed. Bruno Reudenbach and Gia Toussaint. Hamburger Forschungen zur Kunstgeschichte: Studien, Theorien, Quellen 5. Berlin: Akademie-Verlag, 2005. 107-135.
- Wyckoff, Dorothy. "Albertus Magnus on Ore Deposits." *Isis* 49 / 2 (1958) 109-122.
- Zambelli, Paola. "Magic and Radical Reformation in Agrippa of Nettesheim." *Journal of the Warburg and Courtauld Institutes* 39 (1976) 69-103.
- Zinn, Grover. "Hugh of St. Victor and the Ark of Noah: A New Look." *Church History* 40 / 3 (1971) 261-272.