

The Mind's Eye: Visualizing Encyclopedic Knowledge in the Later Middle Ages

by

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B.A., McMaster University, 2005

M.A., University of British Columbia, 2007

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of the Requirements for the Degree of

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Supervisory Committee

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Abstract

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This dissertation critiques and updates the theoretical frameworks for understanding encyclopedic and diagrammatic images as presented in the scholarship of Lucy Freeman Sandler, Barbara Maria Stafford, John Bender, and Michael Marrinan. It offers a new model for examining the cognitive role of images by studying an important medieval encyclopedia, *On the Properties of Things*, originally written in Latin by Bartholomaeus Anglicus in the thirteenth century.

Bartholomaeus' text was the most popular encyclopedia of the later middle ages and four vernacular translations were produced and circulated between the fourteenth and sixteenth centuries. Significantly, the French translation of the compendium, coming out of the vernacularization movement of King Charles V but radiating out to other production centres, involved the design of an elaborate and novel illustrative program. The present project examines two exceptional fifteenth-century French copies of this encyclopedia (BnF fr. 9141 and BnF fr. 135/6), and interprets them in light of the shifting intellectual culture and evolving reading practices of late-medieval lay audiences.

The information-rich and highly aestheticized miniatures found in such encyclopedic manuscripts have traditionally been defined, by Sandler and others, as having an explanatory function and the capacity to elevate the content of the text through

displays of material luxury. My model expands the significance of such images by highlighting their capacity to promote thought. I argue that images in didactic compendia can (i) encourage the reader to actively engage with the text through representations of aristocratic readers performing their understanding of the book socially, and (ii) facilitate visual thinking by aesthetically reflecting the structure of the encyclopedic text through the diagrammatic strategies of the collection, compression, and division of fragmented information. Though the images in my two manuscript case studies take distinct approaches to reader engagement and the mediation of knowledge, in both cases the power of these visualizations rests in the cognitive acts and range of mental associations they provoke. This dissertation demonstrates that epistemically-dense images, in addition to merely reflecting a text, could shape knowledge as it was being formed in the minds of active viewers, readers, writers, and artists, in an intellectually rich period in late-medieval France.

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Introduction

In our current “information age,” encyclopedias and reference works in general have the distinction of being among the first books to be widely considered replaceable by Internet and computerized editions. In the past twenty years, they have gone from being a household necessity, an apparently desirable “gift with purchase” offered by grocery stores, to the only type of book that most charities collecting used goods steadfastly refuse to accept. Those of us who have a difficult time understanding the encyclopedia as a novel and inventive technology have a certain vision of what a pre-digital encyclopedia, or set of encyclopedias, ought to look like. At the level of content, the intellectual project of the encyclopedia is to act as an organized and authoritative carrier of important knowledge. To communicate this through its format, it should be large and feature markers of high quality and high production value such as glossy paper, colourful images, and hard bindings. To make the organizational structure salient, even when the book is not in use, the volumes should be displayed together and in order. Within this material form we also rather intuitively understand what kinds of images are likely to appear within such a book; they might include maps, diagrams, charts, close studies of individual creatures, and portraits of thinkers or important figures that might assist in the comprehension of the content.

While the intellectual project of the encyclopedia remains fairly persistent throughout the long history of the genre, from antiquity to today, several of the material features described above became hallmarks of the genre at a particular moment in late-medieval book history. Specifically, extensive image programs and other signs of luxury

became associated with didactic compendia when they were transformed from Latin school and preaching books into household items for vernacular private libraries. This concurrent textual and material transformation occurred in the case of the main subject of this dissertation, Jean Corbechon's French translation of Bartholomaeus Anglicus'¹ *On the Properties of Things* (*De proprietatibus rerum*, written c. 1240, translated 1372), as it did for many other classical and medieval texts that were thought essential to the education of increasingly sophisticated lay readers.² My main manuscript case studies for this dissertation, BnF fr. 9141 and BnF fr. 135/6, are two of many richly illustrated copies of Bartholomaeus' encyclopedia that were produced for an elite fifteenth-century audience.

While this new lay audience was certainly interested in displaying its wealth and sophistication through book ownership, and indeed one might even say that this audience was extravagant in its artistic tastes, the physical and formal changes made to encyclopedias during the translation process were not superficial. In fact, pictures were considered so important that they were understood, at the level of reception, as an integral part of the *translatio studii* in France.³ That is to say, alongside several changes to the text itself and a shift in script from a bookhand to a *lettre bâtarde*, the addition of an illustrative program updated the encyclopedia to suit French tastes. Here, what seem to be simple questions of style are what allowed Bartholomaeus' text to be viewed as part of

¹ Alternative spellings and names for Bartholomaeus Anglicus include: Bartholomeus Anglicus, Bartholomew the Englishman, Barthélemy l'Anglais, and occasionally Bartholomaeus of Prague. He has, in the past, been identified as Bartholomaeus Glanville of Suffolk, but there is little evidence to support this theory. See M.C. Seymour and Colleagues, *Bartholomaeus Anglicus and His Encyclopedia* (Aldershot, Hants: Variorum, 1992), 1-8.

² Claire Richter Sherman, *Imaging Aristotle: Verbal and Visual Representation in Fourteenth-Century France* (Berkeley: University of California Press, 1995), 6.

³ *Ibid.*, 5.

the expanding national canon under Charles V. But even beyond these social/nationalist functions, the images added to the text during this transformation have important *cognitive* functions. They embody an encyclopedic mode of thinking that would have been significant, identifiable, and authoritative to many types of readers and viewers between the early explosion of these illustrations in the fourteenth century and the late-sixteenth century.⁴

A major art historical study on the topic of pre-modern encyclopedias has been produced by Lucy Freeman Sandler, in her monograph on James le Palmer's fourteenth-century English encyclopedia, the *Omne Bonum*.⁵ A number of articles on the topic of illustrated compendia can also be found in Sandler's *Studies in Manuscript Illumination: 1200-1400*.⁶ Here, compilations of "universal knowledge" are studied in order to assess the "usefulness" of images within the context of pre-modern encyclopedias.⁷ Sandler defines these images as having five key hallmarks: (i) explanatory value, (ii) the power to add to or comment on the text, (iii) a function as place markers or *aides mémoire*, and

⁴ Michael W. Twomey, "Towards a Reception History of Western Medieval Encyclopedias in England before 1500," in *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress*, ed. Peter Binkley (Leiden, New York, Köln: Brill, 1997), 360-61. See also Michael Camille, "Seeing and Reading: Some Visual Implications of Medieval Literacy and Illiteracy," *Art History*, 8, no. 1 (1985): 26-49.

⁵ Lucy Freeman Sandler, *Omne Bonum: Fourteenth-Century Encyclopedia of Universal Knowledge* (London: Brepols Publishers, 1996). The *Omne bonum* has enough similarities with Bartholomaeus' work that it has been referred to as an adaptation of *On the Properties of Things*. See, Michael Twomey, "Inventing the Encyclopedia" in *Schooling and Society: The Ordering and Reordering of Knowledge in the Western Middle Ages*, eds. Alasdair A. MacDonald and Michael W. Twomey (Leuven, Paris, Dudley MA: Peeters, 2004), 79.

⁶ Lucy Freeman Sandler, *Studies in Manuscript Illumination 1200-1400* (London: The Pindar Press, 2008). Relevant essays in this volume include, "Notes for the Illuminator: The Case of the *Omne Bonum*," 315-349; "*Omne bonum: Compilatio and Ordinatio* in an English Illustrated Encyclopedia of the Fourteenth Century," 350-385; "Encyclopedia," 386-408; "Illustrations of Canon Law in the '*Omne Bonum*,' an English Encyclopedia of the Fourteenth Century," 409-421; "Index-Making in the Fourteenth Century: Archbishop Arundel's Copy of the Gospel Commentary of William of Nottingham," 422-456; "The Role of Illustrations in James le Palmer's '*Omne Bonum*,'" 457-483; "John of Metz, The Tower of Wisdom", 484-497.

⁷ *Ibid.*, 388.

(iv) as “material signs of a high estimate of the value of the knowledge contained within an encyclopedia...[that (v),] in turn enhance the value of the book to its possessor.”⁸

While the images I study in this dissertation do indeed fill each of these functions, I argue that we need to update this model and expand the significance of these encyclopedic images by considering their important cognitive role in complex processes of reading and thinking. I do this by studying two additional ways that images mediate knowledge in late-medieval French copies of *On the Properties of Things*. These images can (i) encourage the reader to actively engage with the text through representations of aristocratic readers performing their understanding of the text socially (as allegories of knowledge) and they can (ii) facilitate visual thinking by aesthetically reflecting the structure of the book. Specifically, they do this through the use of the cognitively significant strategies of collecting, compressing, and dividing fragmented information.

While working with these French Bartholomaeus manuscripts, and studying the potential roles that images can play within thinking and reading processes, three central research questions have emerged that have implications for understanding images in both the past and present: *How do the aesthetic and epistemic goals of images relate to each other in visual displays of knowledge? How do the aesthetic systems of images relate to each other in visual displays of knowledge?* and *How do these choices affect knowledge transmission, acquisition, storage and use?*

⁸ Ibid., 387-388.

Bartholomaeus Anglicus and the Reception of his Encyclopedia

I argue for the cognitive role of illustrations in medieval encyclopedias by focusing on the most popular compendium of the period, Bartholomaeus Anglicus' *On the Properties of Things* (c.1240-5).⁹ The Latin version of this text is one of several important encyclopedias written in the late twelfth and early thirteenth centuries, including most notably, Alexander Neckam's *De naturis rerum* (c.1190), Thomas de Cantimpré's *De natura rerum* (1230-5), and Vincent de Beauvais' *Speculum maius* (c.1244-1260). Each of these collections of knowledge was circulated until the later Middle Ages but Bartholomaeus' compendium was the most widely copied, with over 100 surviving Latin manuscripts and four vernacular translations dating to the early fourteenth century, including Vivaldo Belcazar's Mantuan translation (1309), an anonymous Provençal translation (c. 1350-1355), Jean Corbechon's French translation for King Charles V of France (1372), and John Trevisa's English translation (1398-99). There were also several French, German, and English printed editions produced between 1470-1600.¹⁰ Each of the major Latin encyclopedias listed above has its relative advantages and, as M.C. Seymour notes, the widespread and long-lived popularity of *On The Properties of Things* cannot easily be ascribed to its comparative comprehensiveness or accuracy.¹¹ Instead, its moderately small size (a complete Latin Bartholomaeus manuscript is about 400 folios compared to the over 1600 folios of Vincent de Beauvais' *Speculum maius*), clear

⁹ For a list of key dates in the life of Bartholomaeus Anglicus and the reception of his encyclopedia, see Appendix A.

¹⁰ Elizabeth Keen, *The Journey of a Book: Bartholomew the Englishman and the Properties of Things* (Canberra: ANU E Press, 2007), 4-5.

¹¹ M.C. Seymour and Colleagues, *Bartholomaeus Anglicus and His Encyclopedia* (Aldershot, Hampshire and Brookfield, Vermont: Variorum, 1992), 15. For approximate average folio numbers, see Keen, *The Journey of a Book*, 4.

organization, and “uncontroversial” positioning, made it the “most practical” among the encyclopedias of this period.¹² If we were to draw an analogy between encyclopedias and devotional books in the later middle ages, we could say that Vincent de Beauvais’ encyclopedia is to Bartholomaeus’ what the Breviary is to the Book of Hours.

Despite the significance of *On the Properties of Things*, little is known for certain about the biography of its author. Indeed, even the Englishness of Bartholomaeus Anglicus has been contested in the scholarship that stitches together the details of his life.¹³ The primary sources for this reconstruction are three key chronicles, Thomas of Eccleston’s *De adventu fratrum minorum in Anglia* (c. 1258), Giordano di Giano’s *Chronica Fratris Jordani* (1262), Adam de Salimbene of Parma’s *Chronica fratrum* (c.1282), which mention Bartholomaeus, though not always by name, in the context of early Franciscan history.¹⁴ In addition to these chronicles, his travels and appointments to various university and church positions are documented in official letters, and still more about his life can be inferred through the content of his encyclopedia.¹⁵

Bartholomaeus was likely born sometime before 1200 and received his formative education in the early years of Scholasticism, either at Oxford (possibly under Robert Grosseteste) or Chartres.¹⁶ He probably entered a theology course at the Paris *studium* c. 1220, becoming a member of the Franciscan Order at Saint-Denis in 1224, and then took

¹² Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 13-15.

¹³ The nationality of Bartholomaeus, including his contested Englishness, is discussed in Gerald E. Se Boyar, “Bartholomaeus and His Encyclopedia,” 171. See also Keen, *The Journey of a Book*, 2.

¹⁴ Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 6. See Appendix A.

¹⁵ *Ibid.*, 7. Even this information is occasionally unclear as the documents mentioned here often refer to someone named simply “Bartholomaeus” or even “Bartholomaeus of Prague.” These letters are assumed, by Seymour and others, to be discussing the author of *On the Properties of Things*. These inferences are based on parallels found in the chronicles and speculations about the normal trajectory of a clerical career in the thirteenth century.

¹⁶ Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 10. The argument that Bartholomaeus was educated at Chartres can be found in Se Boyar, “Bartholomaeus and His Encyclopedia,” 185.

a position as *lector* at the University of Paris, where he may have been associated with the *natio anglicana*.¹⁷ Bartholomaeus is first mentioned, though not by name, in the *Chronica fratris jordani* when Giordano of Giano writes that two unnamed Franciscan friars (probably Bartholomaeus Anglicus and Johannes Anglicus) were called to Saxonia to help with the division of Germany.¹⁸ By 1231, the same chronicle notes that Bartholomaeus was employed as *lector* in Magdeburg.¹⁹ After leaving this position, he was appointed Minister Provincial in Austria and Bohemia and then appointed as a Papal legate to Bohemia, Moravia, Poland, and Austria.²⁰ Eventually, he took the position of Bishop of the Cathedral at Lucków and died in 1272 as Minister Provincial of Saxonia.²¹

Bartholomaeus likely wrote his encyclopedia while he was teaching student friars, and possibly also lay students, in Magdeburg c.1240.²² Because this text was composed at the outer reaches of the Franciscan mission rather than at the center of a grand academic or monastic library, *On the Properties of Things* was probably compiled using the author's personal reading notes, materials remembered from public lectures heard in Paris, and a range of available anthologies.²³ Bartholomaeus explains in the Latin preface, which will be discussed in Chapter Two of this dissertation, that the purpose of

¹⁷ Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 6.

¹⁸ *Ibid.*, 1.

¹⁹ *Ibid.*, 2.

²⁰ *Ibid.*, 4-7.

²¹ *Ibid.*, 3-7.

²² Juris Lidaka, "Bartholomaeus Anglicus in the Thirteenth Century," in *Pre-Modern Encyclopaedic Texts*, ed. Peter Binkley (Leiden, New York, Köln: Brill, 1997), 394. Note that while Seymour agrees that *On the Properties of Things* was most likely written as a school textbook in Magdebourg, he dates it slightly later to c. 1245. See Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 35.

²³ Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 18. This is a much different writing context than that surrounding other thirteenth-century encyclopedias. Vincent de Beauvais' works, for example, were completed with first-hand access to the extensive library at the Abbey of Royaumont and the assistance of many learned assistants. See Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 14-5.

his book is to “explain biblical references” but, as Seymour notes, the text extends well beyond the scriptures to include natural history, geography, and a range of Arabic, Greek, and Jewish knowledge.²⁴

These sources were initially compiled and organized to form a useful textbook for classroom use. Indeed, the intended audience, as defined by Bartholomaeus’ preface, was the “simple” or “rude” pupil whose understanding of the scriptures would benefit from a brief *summa* of important classical and medieval sources.²⁵ This intended reader was presented with nineteen books (the number chosen to reflect organized comprehensiveness through reference to the twelve signs of the zodiac and the seven planets) ranging in subject from the nature of God to the “accidentals” of the natural sciences.²⁶ The encyclopedia is further organized by subheadings, under which content is often arranged alphabetically. The text is written in clear language and takes what has been called an “uncontroversial” approach to conflicting sources, which it often simply juxtaposes.²⁷ According to Seymour, Bartholomaeus’ approach to Aristotle and the work of Arabic and Jewish scholars was already thirty years behind trends in Scholasticism at the time it was written.²⁸ Seymour writes, “There is no clash between Aristotelian philosophy and Augustinian theology in *De proprietatibus rerum* because Bartholomaeus was unaware of their discrepancy.”²⁹ The author’s seemingly old-fashioned approach to *compilatio* as it was discussed in the middle ages, and his presumptions about his reader’s

²⁴Ibid., 15, 27 & 32. For details of the text’s content and major sources, see Appendix B.

²⁵ Lidaka, “Bartholomaeus Anglicus in the Thirteenth Century,” 395.

²⁶ Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 11. For more information about the organization and content of the encyclopedia, see Appendix B.

²⁷ Ibid., 11 & 13.

²⁸ Ibid., 11.

²⁹ Ibid., 23.

lack of sophistication are likely related to the context of Magdeburg. His students would have had relatively little education compared with his pupils at the University of Paris, and both the author and readers would have had much less access to original source materials.³⁰

It is surprising, given the goals and intended readership of *On the Properties of Things*, that the encyclopedia found a new popularity in courtly and aristocratic circles throughout Europe in the late thirteenth through fifteenth centuries. As noted above, the text was translated into four vernacular languages at the behest of aristocratic and cultivated patrons in the fourteenth century. These individuals, unlike Bartholomaeus' students, did not suffer from lack of access to education or libraries filled with the classical and medieval sources that are excerpted in the encyclopedia.³¹ There are also other differences between these two audiences that are important to my argument about the cognitive function of encyclopedic images. As recent scholarship demonstrates, the emergence of this new lay audience included a distinct type of late-medieval reader, who was characterized by active engagement with the texts and images that they housed in their growing libraries. This group of readers had a sense of *agency* with regard to textual and visual analysis. They participated in the creation of new meaning, which could be negotiated either individually, by working with a codex in private, or collectively among peers.³²

³⁰ Lidaka, "Bartholomaeus Anglicus in the Thirteenth Century," 394.

³¹ Sandler, "Encyclopedia," 401.

³² On the participatory lay reading culture in the late-fourteenth and fifteenth centuries, see Laurel Amtower, *Engaging Words: The Culture of Reading in the Later Middle Ages* (New York: Palgrave, 2000) and Deborah McGrady, *Controlling Readers: Guillaume De Machaut and His Late Medieval Audience* (Toronto, Buffalo & London: University of Toronto Press, 2006).

Research Problem

As noted earlier in this introduction, the present study focuses on two luxuriously illustrated French copies of this work created during the early to mid fifteenth century. These manuscripts, BnF fr. 9141 and BnF fr. 135/6, both housed in the Bibliothèque nationale de France in Paris, are relatively late copies (probably second and third generation, respectively) of the translation produced for the expansive vernacularization program of Charles V of France (1338-1380). Both of these copies are luxurious and contain images that play a complex role in the communication of encyclopedic thought. I have chosen to study them together here because they represent two distinct approaches to reader engagement and the mediation of knowledge. Though they look very different from an aesthetic perspective, both guide the reader to similar ways of interacting with the text. The first case study, BnF fr. 9141, contextualizes the reading process within the social world of lesser members of the court and, I will argue, emphasizes an intellectual community that demonstrates mastery over knowledge through social performance. The second case study, BnF fr. 135/6, is an altogether less courtly and less restrained manuscript. It uses an unusual shift in pictorial emphasis to (i) destabilize the carefully choreographed sense of mastery and community that is seen in earlier manuscripts and (ii) fix the reader's cognitive processes as the subject of reflexive analysis. As these two case studies will show, the artists who illustrated these books had a sophisticated understanding of Bartholomaeus' text and the changing purposes of the book that were established through its translation and its reframing through the addition of a new French prologue. The designers of the miniatures also understood or shared some of the cognitive goals of its new lay audience. They used this understanding to create illustrative

programs that could make significant contributions to the reading experience by modeling intellectual values and providing thought-provoking sites for the reader to engage with visualizations of the text's content.

In this dissertation I will use the tools of art history and book history to discuss encyclopedic images as information technologies. To do so, I will examine three key types of images found in these manuscripts, namely (i) frontispieces that frame the translation of the text as an act of creation, (ii) "thinking figure" images that show readers in active engagement with the text as it is filtered through the natural world, and (iii) diagrammatic representations of knowledge.

Through these image-types, I will chart the kinds of social and cognitive work that images within late-medieval luxury encyclopedias can do. Visualizing the vast scope of information contained in encyclopedias is problematic and the practical impossibility of presenting "universal knowledge" requires the use of creative illustrative strategies. The embodied reading and thinking practices represented in, and directed by, miniatures like those found in BnF fr. 9141 and 135/6 demonstrate the social role that intellectually stimulating objects could play for an audience that was placing increasing emphasis on its own skills as active readers and thinkers. Encyclopedic images worked because they were capable of directing the attention of this audience, providing it with problems to puzzle through, and presenting their viewers with dense, but strategically organized, arrays of knowledge. The content of texts and images was actively synthesized by these readers, who could later perform co-evolved versions this knowledge as a form of pleasurable recreation or, indeed, anxious self-analysis.

New Directions in the Scholarship of Encyclopedic Images

Though we can never truly access the cognitive world of medieval readers, images in the manuscripts studied here can teach contemporary viewers something about their mental processes in at least two distinct ways. The first way that these images show the intellectual values of the audience in question is through the visual representation of the extended aristocratic mentalité at work and the importance of building of an elite intellectual “brotherhood” based on the active use of knowledge.³³ The second involves viewing encyclopedic images as restructuring tools that are themselves “constitutive” of mental processes.³⁴ Through their visual properties and representational strategies, including the compression and division of encyclopedic information, they shape the minds of their active readers by inviting analysis and synthesis while making the content of Bartholomaeus’ text powerfully memorable. In order to access this cognitively focused reading, however, a new model for understanding encyclopedic images must be formed around existing historical studies of the encyclopedic genre, literature concerning the intellectual values of the late-medieval audience in question, and a theoretical framework that connects aesthetics, reception, and cognition.

Recent scholarship on the topic of *On the Properties of Things* is fragmented as a result of the encyclopedia’s long period of circulation, its translation into multiple languages, and its movement throughout Europe. If understood in its trans-historical form, the encyclopedia is not exclusively tied to one specific type of reader, historical moment, or material form. In research on this text, scholars generally focus on the early

³³ Ibid., 27.

³⁴ Barbara Maria Stafford, *Echo Objects: The Cognitive Work of Images* (Chicago: University of Chicago Press, 2007), 21.

Latin manuscripts or on Bartholomaeus' unusual use of sources, as seen in M.C. Seymour and his colleagues' work *Bartholomaeus Anglicus and His Encyclopedia*.³⁵ Other scholarship seeks to understand the author's intended audience and its potential uses in a wider historical framework. These projects include that of Juris G. Lidaka, who explores the thirteenth-century reception of *On the Properties of Things* in Europe. Here, the problem of the book's seemingly unjustified popularity outside the university is discussed in terms of its potential usefulness to travelling preachers.³⁶ The most thorough work on Bartholomaeus' encyclopedia is Heinz Meyer's *Die Enzyklopädie des Bartholomäus Anglicus*, which catalogs existing manuscripts and charts their history and circulation.³⁷

Each of these texts on the tradition of Bartholomaeus manuscripts positions the encyclopedia in a way that complicates, rather than answers the question of why this book was so interesting to a well-educated fifteenth-century audience.³⁸ In addition, scholarship that deals with reception history generally excludes illustrated codices from the discussion and does little to address the significance of the material transformation of the book. Indeed, relatively little emphasis is placed on the position of *On the Properties of Things* within the context of private libraries. Focus most often rests on the function of the text well before the period of its illustration, when it was used in monastery or university schools, or in the context of mendicant preaching practices.

One exception to this tendency is the work of Elizabeth Keen, who has studied the movement of this textual tradition through time and space, though with a strong focus on

³⁵Seymour, *Bartholomaeus Anglicus and His Encyclopedia*.

³⁶Lidaka, "Bartholomaeus Anglicus in the Thirteenth Century," 393 & 405.

³⁷ Heinz Meyer, *Die Enzyklopädie des Bartholomäus Anglicus: Untersuchungen zur Überlieferungs und Rezeptionsgeschichte von "De proprietatibus rerum"* (München: W. Fink, 2000).

³⁸ This fifteenth-century popularity is attested to in Lidaka, "Bartholomaeus Anglicus in the Thirteenth Century," 405; Twomey, "Towards a Reception History of Western Medieval Encyclopaedias," 346-362.

England. In *The Journey of a Book: Bartholomew the Englishman and the Properties of Things* and “A Peopled Landscape: Bartholomew the Englishman on the Properties of Daily Life” she examines vernacular translations and uses textual analysis to unravel the relationships between the encyclopedia and its impact on power and salvation in late-medieval England.³⁹ The article’s title, “A Peopled Landscape,” is somewhat misleading for the art historian, as Keen’s discussion is limited to the vivid *textual* scenery described by the author and does not attempt to chart any mirrored phenomenon in visual representation. A brief discussion of the role of pictorial landscapes, however, can be found in Walter Cahn’s article “Medieval Landscape and the Encyclopedic Tradition,” in which the early modern focus on the natural world in the form of “pure” landscape painting is related to descriptive inventories in Medieval encyclopedias.⁴⁰

Representations of nature are highly significant to the present study, but I complicate the conventional understanding of landscape painting by highlighting the ways that they can be interpreted as visualized thoughts rather than strictly representations of the natural world.

A small amount of scholarship has also been devoted to the afterlife and wider implications of *On the Properties of Things*, including some claims that Shakespeare used the heavily moralized English translation, referred to as *Batman uppon Bartholome* (1582), as a source.⁴¹ This type of argument, which uses textual relationships to chart the

³⁹ Keen, *The Journey of a Book*; Elizabeth Keen, “A Peopled Landscape: Bartholomew the Englishman on the Properties of Daily Life,” *Parergon* 24, no. 2 (2007): 7-22.

⁴⁰ Walter Cahn, “Medieval Landscape and the Encyclopedic Tradition,” *Yale French Studies*, Special Issue: Contexts: Style and Values in Medieval Art and Literature (1991): 11-24.

⁴¹ The notion that *On the Properties of Things* informed or was used directly by Shakespeare is found, among other places, in Gerald E. SeBoyar, “Bartholomaeus Anglicus and His Encyclopedia,” *Journal of English and Germanic Philology* 19, no. 2 (1920): 168-189, 168. It is also seen in Robert W. Steele, *Medieval Lore*

lasting significance of the encyclopedia, has been largely discounted in recent research. A particularly strong rebuttal of the assumption that the reception of encyclopedias can be understood in such a linear fashion is found in Twomey's essay "Inventing the Encyclopedia." Here, Twomey limits the way that Bartholomaeus' text can be understood as a literary "source" by asserting that the encyclopedia represents an "open" text that invites frequent additions and revisions, and a kind of collected common knowledge.⁴² As the text contains information that can be found in so many places, Twomey argues that it is difficult to conclusively tie any given fact or idea specifically to Bartholomaeus' book. This is a crucial point for my argument because it means that we need to look beyond the level of content to understand the significance of the compendium for the highly-educated late-medieval audience. One of the ways that we can do this is through scholarship that addresses the broader genre of medieval encyclopedias and its literary conventions, a subject that I will turn to in Chapter One of this dissertation.

Michael W. Twomey looks at the reception of encyclopedias as a genre in several publications, including the very helpful essays "Towards a Reception History of Western Medieval Encyclopedias in England Before 1500" and "Inventing the Encyclopedia," both of which are frequently cited in this project.⁴³ While the focus of his work is on the English manuscript tradition, he provides important information about the wider

from *Bartholomaeus Anglicus: De proprietatibus rerum* (London: Chatto and Windus, 1907), 14-17. For a full explication of this phenomenon, see Twomey, "Inventing the Encyclopedia," 84-91.

⁴² By "open text," Twomey means that the encyclopedia is "subject to revision, addition, extraction and other forms of textual manipulation. Ibid., 85 & 89. This argument is based, in part, on Heinz Meyer, *Die Enzyklopädie des Bartholomäus Anglicus*, 232-237.

⁴³ Twomey, "Towards a Reception History of Western Medieval Encyclopaedias in England before 1500"; Michael Twomey, "Inventing the Encyclopedia" in *Schooling and Society: The Ordering and Reordering of Knowledge in the Western Middle Ages*, eds. Alasdair A. MacDonald and Michael W. Twomey (Leuven, Paris, Dudley MA: Peeters, 2004).

implications of encyclopedic modes of thought and helps to place the French translation of the encyclopedia into a wider European context.

The cultural value of illustrated encyclopedias can also be clarified through the study of their intended audiences. While we often think of the aristocratic and bourgeois audience of the later middle ages as avid users of devotional works, quintessentially the Book of Hours, the Missal, and the Psalter, many of these patrons also owned an encyclopedia. Among the first texts to be printed in France and England, encyclopedias served as guides to the scriptures, guides to classical learning about natural history, and a source of connection between the natural environment of the audience and the spiritual world of the Bible.⁴⁴ While it is impossible to trace the direct influence these manuscripts had on other cultural traditions, for a range of reasons to be discussed in Chapter Two, the wide circulation of works like *On the Properties of Things* made encyclopedic ways of collecting and organizing information undeniably influential. In the French context specifically, this text was considered to be of prime significance within the world of the court but it also had a varied audience beyond the most elite intellectual circles that likely included wealthy professionals and members of the *bourgeoisies*.⁴⁵ The professional craftsmen who illustrated luxury copies of these works in the fifteenth century, for example, were not simply relying on established conventions when they went about their practice. Their knowledge of the text and the encyclopedic structure allowed them to assist in the transmission and mastery of knowledge.

⁴⁴ Christel Meier, "Grundzüge der mittelalterlichen Enzyklopädie. Zu Inhalten: Formen und Funktionen einer problematischen Gattung," in *Literatur und Laienbildung im Spätmittelalter und in Der Reformationszeit*, ed. L. Grenzmann and K. Stackmann (Stuttgart: 1984): 467-500; Lucy Freeman Sandler, "Encyclopedia," 387 & 401.

⁴⁵ Donal Byrne, "*Rex Imago Dei*: Charles V of France and the *Livre des propriétés des choses*," *Journal of Medieval History* 7, no. 1(1981): 97-113, 99.

Why is it, then, that relatively little art historical scholarship has been devoted to the value of encyclopedic thinking and visuality? The answer is likely that we need a model of interpretation that pushes us in a more interdisciplinary direction. Illustrations in late-medieval vernacular encyclopedias, like those I study in this dissertation, can be seen as early steps towards the production of increasingly aestheticized “scientific” texts and images in the later middle ages through the early modern period. Medieval encyclopedic images are connected, aesthetically and epistemically, to renaissance botanical illustrations, and the transition towards the “high art” anatomical illustrations found in the books of Andreas Vesalius, Adriaan van der Spieghel, Giulio Cesare Casserio, and others in the early modern period.⁴⁶ To begin to understand these connections, however, it is necessary to broaden the art historical perspective to include the intellectual culture that surrounds the increasing prevalence of richly aestheticized and epistemically dense images within the history of books. As I will discuss in Chapter Six of this dissertation, for example, images from fifteenth-century Bartholomaeus manuscripts share visual and cognitive strategies with images found in Diderot’s eighteenth-century *Encyclopédie*. The striking similarities can only be explained by exploring the *mental work* that certain aesthetic forms can facilitate, both in our present time and through a range of specific moments in the history of reading. This dissertation does not definitively chart the nature or path of the historical thread that links these images, but it does provide a model for understanding the relationships between the aesthetic and cognitive functions of images in a way that marks the existence and significance of such an aesthetic stream.

⁴⁶ See Stephen J. Campbell and Sandra Seekins, *The Body Unveiled: Boundaries of the Figure in Early Modern Europe*. Michigan: The University of Michigan Museum of Art, 1997.

Beyond the need for a more interdisciplinary approach, the instability and generality of medieval encyclopedias as texts may also play a role in the art historical separation of image and knowledge. The textual and pictorial programs in illustrated compendia can actively encourage strong cultural associations between the *summa* of encyclopedic knowledge and the rudimentary knowledge that every educated person should master. Somewhat like *Wikipedia*, the very ubiquity, generality, and instability of medieval compendia causes them to be overlooked as distinctive sources with compelling cognitive structures.⁴⁷ Though some contemporary scholars have criticized Bartholomaeus' text for lacking intellectual rigor, I suggest that the power of his work is not solely defined by its content.⁴⁸ The capacity of encyclopedias to operate in the background of consciousness as social "works in progress" means that they can shape knowledge as it is being formed in the minds of active viewers, readers, writers, and artists.⁴⁹ In the late-medieval world, the encyclopedic project is persistent rather than static. It evolved in an expanding world of knowledge and discovery.

Theoretical Tools: Image and Mind

This thesis is predicated upon the theoretical position that encyclopedic images are sophisticated information technologies that strongly influenced the cognitive and social lives of their viewers and readers; this influence is possible because human minds are

⁴⁷ The puzzle the seemingly "unjustified" popularity of Bartholomaeus' work is the motivation for Juris G. Lidaka's work on the thirteenth-century reception history of the work. See Juris G. Lidaka, "Bartholomaeus Anglicus in the Thirteenth Century," 393.

⁴⁸ Especially critical is M.C. Seymour. See Seymour, *Bartholomaeus and His Encyclopedia*, 11-12.

⁴⁹ For a more complete explanation of the cognitive value of intellectual technologies and their functions as social "works in progress," see Andy Clark, *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence* (Oxford, New York: Oxford University Press, 2005), 28.

“extended” by the objects and agents that make up their physical and social worlds.⁵⁰ In the work of cognitive scientist and philosopher Andy Clark and related scholars, this extended model of the mind depends on the assumption that human cognition is not “brainbound,” but dependent on external apparatuses such as things in the natural world, texts, images, and knowledge systems. That is to say, in the words of Clark,

what is special about human brains, and what best explains the distinctive features of human intelligence, is precisely their ability to enter into deep and complex relationships with nonbiological constructs, props, and aids....Many of our tools are not just external products and aids, but they are deep and integral parts of the problem-solving systems we now identify as human intelligence.⁵¹

The impossible goal of an encyclopedic education in the later-Middle Ages was the mastery of all knowledge. Clark’s theoretical model asserts that, since no human brain is capable of such feats, the “task is distributed across an environment that involves both humans and non-biological constructs.”⁵² Indeed, as I will explain in Chapter Two, though Clark’s theory of mind is unquestionably modern, it mirrors Bartholomaeus’ understanding of his encyclopedia. One should learn about the properties of things, according to the compiler, because the Holy Spirit has used natural and man-made things as external symbols that can explain the mysteries of the scriptures.⁵³ For Bartholomaeus, divine knowledge can be found through the examination of objects in the world. This, in

⁵⁰ Andy Clark, *Supersizing the Mind: Embodiment, Action, and Cognitive Extension* (Oxford, New York: Oxford University Press, 2008), 7.

⁵¹ Clark, *Natural-Born Cyborgs*, 5.

⁵² Ruth Evans, “Our Cyborg Past: Medieval Artificial Memory as Mindware Upgrade,” *Postmedieval: A Journal of Medieval Cultural Studies* 1, no. 1 (2010): 64-71, 68.

⁵³ For a transcription of Bartholomaeus’ prologue, as seen in *De proprietatibus rerum*, Frankfurt, 1601, see Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 12. A translation into modern English can be found in Chapter Two of this dissertation.

turn, fits my model, which positions manuscripts, including their images, as cognitive tools that can extend the processes of thinking.

The desire for spiritual and cosmological clarity pushes the reader towards an encyclopedic mode of thinking, in which information must be stored within the cognitive annexes of natural things, social groups and working objects such as books, and visual displays of knowledge. In my view, this model of networked mind, text and image helps to define the cognitive advantages of the encyclopedia's instability and openness to adaptation.⁵⁴ The open structure of text and image leaves gaps that invite deep interaction. My study of a group of frontispieces in Chapter Two, for example, demonstrates the book's adaptability through representations that portray the translation of Bartholomaeus' Latin text as an act of creation.⁵⁵ The image programs of BnF fr. 9141 and BnF fr. 135/6, discussed in Chapters Four, Five and Six respectively, each demonstrate that this openness was likely valued by readers because it presented them with opportunities to participate in the production of knowledge.

The more complex illustrative program of BnF fr. 135/6, which emphasizes diagrammatic and list-like representations, is best viewed through the lens of the "thoughtlike" image introduced in Barbara Maria Stafford's *Echo Objects: The Cognitive Work of Images*.⁵⁶ Stafford argues that certain types of images are "constitutive" of mental activities and that objects can have agency.⁵⁷ Significantly, this agency can be understood on cognitive, and not just social, grounds. According to Stafford, "Gapped or

⁵⁴ For a discussion of the open character of the encyclopedia see, Twomey, "Inventing the Encyclopedia," 85.

⁵⁵ Byrne, "Rex Imago Dei."

⁵⁶ Stafford, *Echo Objects*, 21.

⁵⁷ *Ibid.*

mosaic-like compositions,” like the diagrammatic images found in some Bartholomaeus manuscripts, “make the labour of thinking inseparable from the perception of the object.”⁵⁸

A demonstration of how such a gapped, mosaic-like composition can function in the context of a pre-modern encyclopedia can be performed through an examination of the *Arma Christi* image found in Sandler’s main case study, James le Palmer’s fourteenth-century encyclopedia, the *Omne Bonum* (Figure 1).⁵⁹ The composition of the *Arma Christi* image is divided into a thirty-eight part grid, with each section containing an isolated object, symbol or scene related to Christ’s Passion. While the Passion *narrative* and its meanings may be the subject of the viewer’s cognitive or meditative experience, this image represents information related to the story through the representation of individual fragments that have been isolated against a flat, patterned background. Through their isolation, items like swords, hammers and sponges are lifted to the position of “salient objects for reflection” that challenge the reader/viewer because they have been “plucked from a narrative flow.”⁶⁰ Beyond the isolation of these objects, the image further disrupts the linear narrative by deliberately rearranging the Arms of Christ so that they appear out of chronological sequence. These objects are also interspersed with small scenes and symbolic items like the pelican, which have different relationships with the story.

Such aesthetic and programmatic fragmentation shapes the reader’s experience as s/he is engaged in the cognitive labour of filling in the information-gaps left by the de-

⁵⁸ Ibid., 44.

⁵⁹ Sandler, *Omne Bonum*.

⁶⁰ Stafford, *Echo Objects*, 45.

naturalization of the narrative. More than a prompt for the practice of meditative *imitatio Christi*, the mental work required to interpret this image gives agency to the viewer and opens up possibilities for creative engagement in multiple types of spiritual contemplation. Indeed, the grammar of the image leaves the reader to interpret the meaning of the objects as symbolic carriers of truth *beyond* an individual story. In the case of the *Omne Bonum's Arma Christi*, a spiritual reward of the forgiveness of all sins is offered in exchange for the performance of such a complex and immersive meditative act.

In the case of the Bartholomaeus manuscript, BnF fr. 135/6, similar aesthetic strategies of “gapping” are used to create visual puzzles based on the content of the encyclopedic text and its organizational structure. The cognitively demanding aesthetic strategy of “gapping” is useful for the analysis of Bartholomaeus manuscripts and other medieval encyclopedias because it is also a stylistic feature of these *texts*, which focus on the isolation of concepts and the collection, compression, and division of information. As I will discuss in Chapter One, in the middle ages these were considered important mnemonic strategies that facilitated thinking, learning and the creative use of knowledge. Unlike the *Omne Bonum's Arma Christi*, no explicit promises of spiritual rewards accompany the diagrammatic images in BnF fr. 135/6, but the late-medieval lay users of these manuscripts likely experienced *intellectual rewards* from thinking through the gapped texts and images found in the encyclopedia.

The current “cognitive turn” in humanities and social science research is closely related to an earlier generation of response theory in the field of art history. This perspective adds a necessary component to the current project because it complicates the

relationship between object and viewer by raising important aesthetic and historical issues. The work of David Freedberg, following that of David Perkins and Barbara Leonard, argues that processing sensory experiences and associated affective experiences are “ways of knowing.”⁶¹ When it comes to evaluating images, response theory suggests that the aesthetic qualities of a picture are shaping tools that prime the viewer’s engagement with the visual. The power of this slightly earlier theoretical position is that it is also careful to highlight historical factors that can influence responses to images. For example, Bert Hall, in “The Didactic and the Elegant: Some Thoughts on Scientific and Technological Illustrations in the Middle Ages and Renaissance,” urges contemporary viewers of medieval and renaissance anatomical, botanical and technological drawings to “avoid permitting our own responses to the elegance of renaissance perspective drawings from sweeping us along towards the assumption that they are invariably more informative.”⁶² In turn, I argue a related point: that, when we view the diagrammatic aesthetic through the lens of medieval attitudes towards knowledge visualization, visual form can act as a mechanism that primes us to synthesize authoritative information. Objects, such as the illuminated manuscripts discussed in this dissertation, are not inert or socially stable containers for meaning that remain unchanged in the face of aesthetic response. Rather, I suggest that they exist in complex material relationships with active, historically situated beholders and their mental processes. These relationships are framed

⁶¹ David Freedberg, *The Power of Images: Studies in the History and Theory of Response*. (Chicago: University of Chicago Press, 1991); David Perkins and Barbara Leonard, eds., *The Arts and Cognition* (Baltimore: Johns Hopkins University Press, 1977), 2.

⁶² Bert Hall, “The Didactic and the Elegant: Some Thoughts on Scientific and Technological Illustrations in the Middle Ages and Renaissance” in *Picturing Knowledge: Historical and Philosophical Problems Concerning the Use of Art in Science*, ed. Brian S. Baigrie (Toronto: University of Toronto Press, 1996), 16.

by the perception of the unique visual properties that characterize the object and the historical/social context of the viewer, both then and now.

Outline of Chapters

Chapter One: The Art of Information Management: Pre-Modern Encyclopedias as Intellectual Technologies

The first chapter of this dissertation discusses compendia as information technologies that use both text and image for the communication of knowledge. It defines the encyclopedic genre in the middle ages and discusses the characteristics and goals of encyclopedists as authors, particularly the qualities of humility and their ability to collect and divide the most important information. It also introduces the category of encyclopedic images through a discussion of Hugh of St. Victor's "Mystic Ark" and related miniatures from fifteenth-century French copies of Bartholomaeus Anglicus' *On the Properties of Things*. By discussing the rhetorical strategies of *collectio* and *divisio* as discussed in Hugh's *Didascalicon*, I highlight aesthetic and structural parallels between encyclopedic texts and images.

Chapter Two: The Cultural Translation of *On the Properties of Things*

The second chapter addresses the changing readership of *On the Properties of Things* as it moved from Bartholomaeus' schoolroom, to the libraries of preachers, to the Court of Charles V of France. Based on Michael Twomey's reception history of the genre, it explores the varied roles that encyclopedias played in the lives of a range of medieval audiences.⁶³ The chapter will add to Twomey's model and place particular emphasis on

⁶³ Twomey, "Towards a Reception History of Western Medieval Encyclopaedias."

the presence of *On the Properties of Things* in the translation program of Charles V of France, a topic that, because of its specificity, is not usually discussed in broad histories of the genre. I discuss some of the key differences between the Latin and French versions of the encyclopedia and examine the relationships between translator Jean Corbechon's 1372 prologue and the frontispieces found in some early French copies of the text.

Chapter Three: “*Plaisance et amour a sapience*”: The Intellectual Values of Bartholomaeus' Late-Medieval Readers

In order to understand how the aristocratic patrons of my manuscript case studies fit within the reception history described in Chapter Two, it is necessary to study the intellectual values of this specific audience. This third chapter presents some of the key features of late-medieval reading (both silent and aural) and argues for an extended model of book use that complicates relationships between books, authors, readers and their social worlds. To do so, I study the characteristics of the emboldened lay reader, who used books privately and publically as a form of recreation. I also examine manuscript collection as a source of social power. Throughout, I examine the ways that the adaptability of the texts calls the reader to understand him- or her-self as an active agent and the mirror of the author (as compiler). I argue that encyclopedic texts, like some important examples of late-medieval courtly literature such as Guillaume de Machaut's *Voir dit*, cast the receiver as a potential authority over the knowledge contained within the manuscript.⁶⁴ I end the chapter with an argument for a model of late-

⁶⁴ See, Deborah McGrady, *Controlling Readers: Guillaume de Machaut and His Late Medieval Audience* (Toronto, Buffalo and London: University of Toronto Press, 2006).

medieval reading that could incorporate both silent study of the encyclopedia and the lagged oral performance of that knowledge among peers.

Chapter Four: Allegories of Thought: Private Reading and Public Knowledge, BnF fr. 9141

Chapter Four is the first case study of the dissertation. It investigates a manuscript copy of Jean Corbechon's translation that was produced and illustrated by the Boucicaut Master in the first quarter of the fifteenth century (BnF fr. 9141). After a discussion of the work's patronage, the chapter presents an overview of some of the important features of the illustrative program, with special focus on what I have categorized as "thinking figures," that is, images that prominently feature aristocratic readers and scholars engaged in discussions of the encyclopedia's content. I argue that these images, despite not picturing representations of books, are scenes of Bartholomaeus' text and the material manuscript *in use*. The images are allegories of intentional thinking that foreground the social life of knowledge and the process of *inventio*. They are representations of minds that have been extended by intellectual technologies, and they foreground the reader-viewer as an active agent. The analysis of images in this case study focuses on how the illustrative program can inform us about the ways that late-medieval audiences may have used and viewed this kind of manuscript.

Chapter Five: Reflected in the Mirror of Knowledge, BnF fr. 135/6

Chapter Five introduces the second case study in this dissertation, a slightly later manuscript produced in Le Mans, France in the third quarter of the fifteenth century (BnF fr. 135/6). My method of analysis for these images is different than that used in Chapter

Four because this manuscript does not include the thinking figures discussed in the previous chapter. Instead, I will represent a range of different aesthetic strategies. My discussion of this particular manuscript unfolds over two chapters, but here I present an overview of the illustrative program and explore the different ways that readers are reflected in its images. In this copy, the thinking figures are not present to mediate between the reader and the content of Bartholomaeus' book. As a result, many images in this manuscript represent a vulnerable, specimen-like view of human bodies, which act as the subjects of analysis rather than active analyzers. The inclusion of an experimenting figure who uses his senses to engage with the content discussed in Book XIX, *De accidentibus*, is held up as a counter-point to figures discussed in Chapter Four. This perceptive and experimenting figure, who uses all of his senses to engage with physical objects on a table rather than interact with his peers, models the kind of sensory engagement that is required to synthesize the diagrammatic images studied in the next chapter.

Chapter Six: The Encyclopedia and the Diagram: BnF fr. 135/6

This final chapter continues the study of BnF fr. 135/6, but with special emphasis on those images that can be identified as diagrammatic thinking tools. I argue that the meaning of these images is bound up in the translation of features that are significant to the structure of the encyclopedic text and, in turn, to significant aspects of the mnemonic and rhetorical arts that play such an important role in the encyclopedic project. To expand the influence of encyclopedic images in this way, I build a framework based on Bender and Marrinan's *The Culture of Diagram* and Stafford's *Echo Objects*. Then, to test the

possibilities of this model further, I study the visual and cognitive similarities between my case studies and images from Denis Diderot's and Jean le Rond d'Alembert's *Encyclopédie*, and "Zodiac Man" images found in both medical texts and Books of Hours in the middle ages. In the end, I argue that epistemic images are, as annexes of texts, the kinds of mind-extending and mind-restructuring technologies that are illustrated at work through the thinking figure miniatures of the Boucicaut manuscript.

Chapter One: The Art of Information Management: Pre-Modern Encyclopedias as Intellectual Technologies

This chapter acts as an introduction to the encyclopedia in the middle ages and defines encyclopedic manuscripts as “complex cognitive structure[s]” that use text, image, and page layout to create powerful tools for thinking.⁶⁵ I argue that the organized and web-like structure of the text, when balanced with an author’s acknowledgement of a lack of consensus between cited sources, invites the reader to perform complex mental activities. To make this argument, the chapter (i) introduces the accepted definitions of the encyclopedia as a medieval genre, (ii) discusses the most important skills and attributes of the compiler including humility, the ability to produce a technology that facilitates learning, and the aptitude for *collectio* and *divisio*, and (iii) examines the epistemic functions of encyclopedic images in general, starting with Hugh of St. Victor’s “Mystic Ark” diagram and moving to images from fifteenth-century copies of Bartholomaeus’ text. This final section uses the educational principles in Hugh’s *Didascalicon* to highlight relationships between the structure of medieval encyclopedias and the mnemonic strategies of *collectio* and *divisio*. Because these textual features are sometimes mirrored visually, they can be used to establish a model for understanding image-text relationships in medieval compendia and, in turn, the cognitive value of encyclopedic images.

⁶⁵ Claire Richter Sherman, *Imaging Aristotle: Verbal and Visual Representation in Fourteenth-Century France* (Berkeley, Los Angeles, London: University of California Press, 1995), 23.

(i) Defining the Encyclopedic Genre

The issue of defining the encyclopedic genre in the middle ages, and placing limits on what it encompasses, is a difficult problem for contemporary scholars. Like so many other terms that attempt to define categories of medieval objects or cultural phenomena, the word “encyclopedia” did not come into popular use until the renaissance, around the time when many of the great medieval examples stopped being actively circulated.⁶⁶ Once used by renaissance humanists to describe the “circle of learning” that would enclose the basic knowledge necessary to the studies of free and aristocratic children, the term “encyclopedia” is now used more generally to refer to educational books that have the containment of a broad sweep of knowledge as their goal. They are frequently characterized by the presence of organizational features, or finding aids, that make them useful to readers who want to efficiently access information.⁶⁷ In the middle ages, similar books were called *compendia* or *summa* but these two earlier terms define a wider range of genres, including everything from reading notes and *florilegia* to *mappae mundi* and even certain types of prose literature.⁶⁸

The term “encyclopedia” is still useful, however, despite the anachronism, because the ancestors of the modern encyclopedia have features that have become

⁶⁶ Robert L. Fowler, “Encyclopaedias: Definitions and Theoretical Problems,” in *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress*, ed. Peter Binkley (Leiden, New York, Köln: Brill, 1997), 6-7; Michael W. Twomey, “Inventing the Encyclopedia,” in *Schooling and Society: The Ordering and Reordering of Knowledge in the Western Middle Ages*, ed. Alasdair MacDonald and Michael W. Twomey (Leuven, Paris & Dudley, MA: Peeters, 2004), 85.

⁶⁷ The clearest definition of the genre is found in Michael W. Twomey, “Middle English Translations of Medieval Encyclopedias,” *Literature Compass* 3 (2006): 331-340, 331. See also Twomey, “Inventing the Encyclopedia.”

⁶⁸ Twomey, “Middle English Translations of Medieval Encyclopedias,” 331; Margriet Hoogvliet, “Mappae Mundi and Medieval Encyclopaedias: Image Versus Text,” in *Pre-Modern Encyclopaedic Texts*.

standard to the success of the genre, whether the content is presented by means of a reference book, CD-ROM, or website. These features include “searchability” and the use of finding devices, as well as the collection, compression, and division of information. Most of these developments are the product of the classical or early-medieval traditions of the genre, with the exception of the addition of complex images that assist in the understanding or intended use of the text or, indeed, add new layers of meaning. One final feature of the genre that complicates the attempt to produce a satisfactory definition is a continuous process of translation and transformation. The “circle of learning,” both today and in the middle ages, must have the potential to expand and contract to accommodate discovery, create new knowledge, and express the changing needs of book owners.

An informative introduction to these issues can be found in Robert L. Fowler’s contribution to the volume *Pre-Modern Encyclopedic Texts*, which has already been cited a number of times in this dissertation.⁶⁹ As defined by Fowler, and Walter Cahn before him, these works are more than just summaries of important sources.⁷⁰ To the medieval reader, the encyclopedia was an “inventory of the Lord’s creation,” a list of important items, their pertinent characteristics, and associated meanings in relation to the scriptures.⁷¹ As inventories, they often make claims of completeness, either by including every “thing” or concept in the universe or, more usually, by including everything that is

⁶⁹ Fowler, "Encyclopaedias: Definitions and Theoretical Problems."

⁷⁰ Walter Cahn, “Medieval Landscape and the Encyclopedic Tradition,” *Yale French Studies, Special Issue: Contexts: Style and Values in Medieval Art and Literature* (1991): 11-24, 14. See also, Christel Meier, "Grundzüge der mittelalterlichen Enzyklopädie. Zu Inhalten, Formen und Funktionen einer problematischen Gattung," in *Literatur und Laienbildung im Spätmittelalter und in der Reformationszeit*, ed. L. Grenzmann and K. Stackmann (Stuttgart: 1984); Christel Meier, "On the Connection between Epistemology and Encyclopedic Ordo in the Middle Ages and the Early Modern Period," in *Schooling and Society*; Fowler, "Encyclopaedias: Definitions and Theoretical Problems," 18.

⁷¹ Walter Cahn, “Medieval Landscape and the Encyclopedic Tradition,” 14.

deemed *significant to know*.⁷² It has been argued, based on these definitions, that the medieval encyclopedist's purpose was to compile an "ideal library" in a single volume through selection and summary.⁷³ One of the features that distinguishes these books from their sources is that they are not focused on the generation of new knowledge or the compiler's interpretations of authoritative texts. Relying on the persuasive power of tradition, they depend on the notion that important knowledge exists in abundance and is accessible through the texts at hand; this existing knowledge of the universe, even if it is not perfectly understood or consistent among sources, serves as a common information-base for the educated.⁷⁴ Fowler ascribes the popularity of the genre to the tremendous

respect for tradition and authority, which encyclopaedias embody in their assiduous collecting of canonical texts; and a demand among the laity for the essentials of learning, contained in one book representing the libraries they could not afford. This demand is attested by the great number of translations of encyclopaedias into the vernacular languages, and the astounding numbers of copies made.⁷⁵

Indeed, Lucy Freeman Sandler, who has published significant studies on the encyclopedic genre in the middle ages, mostly as it relates to le Palmer's English *Omne Bonum*, reiterates that medieval encyclopedists were more interested in gathering "venerable" sources than "up-to-date" sources.⁷⁶

⁷² This explanation of the genre's purpose is related to the etymology of the word "encyclopedia." Definitions of the term and its place in the pre-modern world are discussed in Fowler, "Encyclopaedias: Definitions and Theoretical Problems," 6-25.

⁷³ Iolanda Ventura, "Quaestiones and Encyclopedias," in *Schooling and Society*, 24.

⁷⁴ Umberto Eco, Jean-Claude Carrière and Jean-Philippe de Tonnac, *This is Not the End of the Book; a Conversation Curated by Jean-Philippe de Tonnac*, trans., Polly McLean (London: Harvill Secker, 2011), 82.

⁷⁵ Fowler, "Encyclopaedias: Definitions and Theoretical Problems," 19. The issue of the laity's lack of ability to access afford libraries will be questioned later in this dissertation.

⁷⁶ Lucy Freeman Sandler, "Encyclopedia" in *Studies in Manuscript Illumination 1200-1400* (London: The Pindar Press, 2008), 387.

The final key to defining the encyclopedic genre in the middle ages is the influence of Isidore of Seville's *Etymologia* (636). The great medieval encyclopedias as they are recognized today, Bede's *De natura rerum* (c. 703), Alexander Neckam's *De naturis rerum* (c. 1190), Thomas de Cantimpré's *De natura rerum* (1230-5), Bartholomaeus Anglicus' *De proprietatibus rerum* (c. 1240-5), Vincent of Beauvais' *Speculum maius* (c. 1246), and Brunetto Latini's vernacular *Li Livres dou Tresor* (c. 1260), are all modeled, to some degree, on Isidore's *summa*.⁷⁷ While the etymological focus is not always preserved in the examples listed above, Isidore influenced later encyclopedists by introducing a fundamental shift from the compilation methods of Cassiodorus and Martianus Capella. While Cassiodorus and Martianus focused on the *trivium* (grammar, logic and rhetoric) and *quadrivium* (arithmetic, geometry, music and astronomy), Isidore broadened the scope of the genre to include classical knowledge about the natural world and the sciences.⁷⁸ As Bernard Ribémont argues, Isidore's goal was to "[fill] a void by supplying Christian culture with the essential knowledge that the first Fathers could have possessed."⁷⁹ The *Etymologia* then situates this expanded corpus within a more systematic structure than had been devised by earlier writers. The encyclopedists of the following centuries, including Bartholomaeus, maintain this broadened scope and interest in developing a universal order in addition to using Isidore as a leading source.⁸⁰

⁷⁷ Bernard Ribémont, "On the Definition of an Encyclopaedic Genre in the Middle Ages," in *Pre-Modern Encyclopaedic Texts*, 49; Paul Barrette and Spurgeon Baldwin, trans., *Brunetto Latini: The Book of the Treasure/Li Livres dou Tresor* (New York, London: Garland Publishing, 1993), ix-x.

⁷⁸ Ribémont, "On the Definition of an Encyclopaedic Genre in the Middle Ages," 49.

⁷⁹ *Ibid.*, 50.

⁸⁰ *Ibid.*, 54.

(ii) Encyclopedists and their Skills

Authorial Humility and Textual Instability

This perceived interest in gathering traditional ideas, and the liberal excerption of Isidore and other authorities, leaves us with some important questions about the status of the encyclopedist as an author. Even before renaissance humanists began to criticize encyclopedists, blaming them for transmitting incomplete and tainted summaries of classical knowledge, this kind of author was described only as a “Master of *received* knowledge about the properties of the created world.”⁸¹ As early as the third century, the encyclopedist is described as “not a real expert.”⁸² Indeed, Ann M. Blair, in *Too Much to Know: Managing Scholarly Information Before the Modern Age*, makes the plausible argument that reference genres such as early encyclopedias are likely to have evolved from the reading notes circulated by scholars and teachers.⁸³ It follows from these considerations that we must understand that the authors of such texts are styled as reliable *readers* and *collectors* rather than individuals with unique knowledge. This is reflected in the variety of metaphors Bartholomaeus and other encyclopedists use to describe their processes, often relating themselves to humble weavers or bees collecting nectar from flowers.⁸⁴ Elizabeth Keen writes that Bartholomaeus “situates himself and his work firmly within the established genre of *compilatio* as a ‘gathering’ or ‘harvesting’ of useful fruits of others’ labours, by describing himself as a gleaner, the humble and impoverished

⁸¹ Elizabeth Keen, *The Journey of a Book: Bartholomew the Englishman and the Properties of Things* (Canberra, Australia: Australian National University Press, 2007), 9 (my italics).

⁸² Fowler, "Encyclopaedias: Definitions and Theoretical Problems," 21.

⁸³ Ann M. Blair, *Too Much to Know: Managing Scholarly Information before the Modern Age* (New Haven: Yale University Press), 7.

⁸⁴ Keen, *The Journey of a Book*, 32.

one who gathers up the harvester's leavings."⁸⁵ In both of these analogies, we are presented with a vision of the encyclopedia that emphasizes humility, teaching and the cobbled-together, rather than completely systematic, nature of the collection. Authorial humility, the importance of readers, and the emphasis on Bartholomaeus' sources, are communicated in the painted miniatures that are the focus of this study. As will be discussed in the following chapter, when these books eventually come to be illustrated, the encyclopedist is rarely represented. Instead, the miniatures focus on the king, translator, patron, aristocratic readers, and occasionally the ancient authors of the compiled sources.

For a modern reader who may evaluate the importance of information based on how current the source is, understanding the legacy of encyclopedias is hampered by the encyclopedia's emphasis on traditionalism and the occasional uncertainty of the authorial voice.⁸⁶ Even in the middle ages, when these books were respected and considered authoritative, the compendium's function as a carrier of "common knowledge" means that authors do not always explicitly cite texts like *De proprietatibus rerum*. In addition, when it came to the classical and medieval source materials found in encyclopedias, writers understood that it would be better to reference the original, excerpted source or nothing at all. According to Twomey,

As a rule, what survived of medieval encyclopedias were the classical texts from which medieval encyclopedias originally drew, and they survived in their original forms, not as excerpts. It would therefore seem that medieval encyclopedias exercised no influence after the middle ages.⁸⁷

⁸⁵ Ibid.

⁸⁶ M.C. Seymour and Colleagues, *Bartholomaeus Anglicus and His Encyclopedia* (Aldershot, Hampshire and Brookfield, Vermont: Variorum, 1992), 17-19.

⁸⁷ Twomey, "Inventing the Encyclopedia," 75.

In other words, because it is often difficult to determine whether a medieval author, when composing a new text, had access to a complete classical manuscript or a selection of excerpts, encyclopedias are often invisible source materials.

Modern scholars from a range of disciplines, perhaps in an attempt to rescue the great texts from obscurity, have attempted to ascribe legacies to early encyclopedias that do not seem justified when we consider the reception history of these books. They are described in postcolonial scholarship as significant factors in the ways that explorers approached the New World and “monstrous races.” They are also written about as important “cultural transmitters of ideology.”⁸⁸ Connections are sometimes made to the works of Shakespeare, arguing that he had access to a copy of Stephen Batman’s 1582 English adaptation of Bartholomaeus’ work, and that its influence surfaces in many plays. Twomey, however, argues convincingly that this apparent chain of influence is reflective of the “common knowledge” nature of Bartholomaeus’ compilation rather than an indication that a version of *De proprietatibus rerum* was ever a direct inspiration to the playwright.⁸⁹ In truth, it is impossible to tell, in most circumstances, if an author relied on a copy of an original classical source, redactions, or even *reportationes* (notes taken, often unofficially by students, during an oral lecture).⁹⁰ The fluid nature of medieval encyclopedic texts, and the constant renegotiation of their meanings in response to audience needs, means that it is difficult to trace the significance of their content through direct influence on later writings.

⁸⁸ Ibid., 75.

⁸⁹ Ibid., 84-92.

⁹⁰ It is highly likely that even Bartholomaeus himself may have relied on anthologies. See Seymour, *Bartholomaeus Anglicus and his Encyclopedia*, 18.

Understanding the depth of the literary and philosophical consequences of medieval encyclopedias is also complicated because the authorial voice is so often unclear or indecisive. Medieval encyclopedists openly acknowledged this difference between their work and the material found in their sources. In the clearest statement of this kind, Vincent de Beauvais wrote in preface to his own encyclopedia, the *Speculum naturale*,

I am not unaware of the fact that philosophers have said many contradictory things, especially about the nature of things....I warn the reader lest he perhaps be horrified, if he finds some contradictions of this kind among the names of diverse authors in many places of this work, especially since I have acted in this work not as an author, but as an excerptor, that I did not try to reduce the sayings of the philosophers to agreement but report what each said or wrote on each thing; leaving to the judgment of the reader to decide which opinion to prefer.⁹¹

As this self-definition shows, the encyclopedist could purposely share the burden of analysis with the reader. Potentially at least, the excerptor gives his audience a tremendous sense of agency by leaving these gaps and contradictions in his work, but this attitude means that the text is something that must be thought through and worked with rather than being passively received. This is a dynamic mode of book-use that sets the reader up to approach the content with a framework of critical *intentio*. It is likely that this analytical engagement would include interaction with both text and image. Indeed, as I will discuss in Chapter Six, the gapped and conflicted nature of the text is well suited to representation through a diagrammatic mode, which requires similar forms of reader engagement and decipherment.

⁹¹ Vincent de Beauvais, *Speculum naturale*, in *Bibliotheca mundi Vincentii Burgundi*, (Facsimile: Graz: Akademische Druck- und Verlagsanstalt, 1964), col. 7 (prologue, 8). Translation from Blair, *Too Much to Know*, 45.

Encyclopedists Create Technologies for Learning

Because the unstable encyclopedia invites the participation of the reader, it represents something much more than a repository of universal knowledge or an affordable “Inventory of the Creation.”⁹² At the level of reception, what the encyclopedist and manuscript producers create is a book that extends the knowledge and mental capacities of the user. In the case of *On the Properties of Things*, this would be consistent with Bartholomaeus’ goals as a teacher of uninformed students. A useful approach to understanding the genre is therefore to view compendia as distinctive and complex thinking tools that make use of a variety of textual and pictorial strategies to store, communicate, and even produce knowledge.⁹³ In the words of Barbara Maria Stafford, these kinds of objects “make the mind.”⁹⁴ This process of using material goods to improve cognitive ability is what contemporary cognitive scientists like Andy Clark refer to as “artifact-based expansion.”⁹⁵ When studying manuscripts specifically, we can see that this view of object-mind relationships resonates strongly with medievalist Claire Richter Sherman’s arguments about the cognitive value of medieval books. Building upon the work of Mary Carruthers, she asserts that the medieval book is designed as a “complex cognitive structure” that helped the reader to understand the text. Through

⁹² Walter Cahn, “Medieval Landscape and the Encyclopedic Tradition,” 14.

⁹³ For a modern perspective, see Andy Clark, *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence* (Oxford, New York: Oxford University Press, 2003); Andy Clark, *Supersizing the Mind: Embodiment, Action, and Cognitive Extension* (Oxford, New York: Oxford University Press, 2008).

⁹⁴ Barbara Maria Stafford, *Echo Objects: The Cognitive Work of Images* (Chicago and London: The University of Chicago Press, 2007), 3.

⁹⁵ Clark, *Natural-Born Cyborgs*, 8. See also Mary Carruthers, *The Craft of Thought: Meditation, Rhetoric, and the Making of Images, 400-1200*, (Cambridge: Cambridge University Press, 1998), chapters 6 & 7; Sherman, *Imaging Aristotle: Verbal and Visual Representation in Fourteenth-Century France.*, 23. See also, Ruth Evans, “Our Cyborg Past: Medieval Artificial Memory as Mindware Upgrade,” *Postmedieval: A Journal of Medieval Cultural Studies* 1, no. 1 (2010): 67-71.

layout, writing, methods of compilation, and organization, medieval texts were fashioned to advance certain psychological processes, of which memory and recollection are the chief tools of cognition.⁹⁶

This framework for understanding the book allows us to interpret encyclopedic texts and images as fluid, “working objects” that function in ways that are different from the primary sources they combine. Through their organization, *mise-en-page*, and the illustrations that accompany the text, they cast the reader in the role of an active thinker and agent, capable of using the information within the book to meet his/her own social and intellectual ends.⁹⁷

Fowler’s argument, mentioned above, that lay readers would benefit from being able to access a catalogue of knowledge in one book for economic reasons is implausible in the context of fifteenth century France and, indeed, much of late-medieval Europe. The most obvious problem with this theory is that these books were frequently owned by wealthy and learned individuals. They were designed to fit within growing private libraries and were considered especially useful texts for kings and princes. In the process of making encyclopedias more attractive to this audience, their creators transformed them into expensive luxury objects, produced using fine materials and the work of notable craftspeople including artists like the Boucicaut Master, illustrator of BnF fr 9141.⁹⁸ Furthermore, the French translation of Bartholomaeus, one of four vernacular versions of the text completed in the fourteenth century, was commissioned by Charles V alongside

⁹⁶ Claire Richter Sherman, *Imaging Aristotle*, 23.

⁹⁷ The phrase “working objects” is used liberally, with regard to Diderot’s *Encyclopedia* and its images in John Bender and Michael Marrinan, *The Culture of Diagram* (Stanford: Stanford University Press, 2010).

⁹⁸ Millard Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master* (London: Phaidon, 1968), 58-9.

translations of Aristotle's original texts, the works of Hugh of St. Victor, and several other of Bartholomaeus' sources in their complete forms.⁹⁹ The encyclopedia was just one of a suite of books that a learned lay person would want to own and was not considered a replacement for its excerpted source texts.

Encyclopedias are frequently discussed as one of the principal ways that classical knowledge was "passed down" in the middle ages, but this content, and the ways of thinking associated with its logical organization, are situated within a form that encourages frequent negotiation and reinvention. As Twomey suggests, "The *De proprietatibus rerum* was not a 'closed' text, but subject to revision, addition, extraction, and other forms of textual manipulation."¹⁰⁰ Indeed, this theory is born out in the codicological evidence, as there is scarcely a copy of the text that does not include additions, further compressions, and/or appendices.¹⁰¹ While these features may surprise modern readers, who are accustomed to criticisms surrounding the collaborative nature of *Wikipedia*, historically speaking these instabilities are the essential qualities of the encyclopedia. Indeed, this is true of many informative books in the middle ages. These are the very properties that give this kind of book such longevity and make it interesting to the active and curious readers of fifteenth-century lay society, whose reading practices I will discuss in the next chapter. It is the technology of this encyclopedic text with its images, its structure, and its perceived openness that makes it powerful in this context.

⁹⁹ Sherman, *Imaging Aristotle*, 8-9.

¹⁰⁰ Twomey, "Inventing the Encyclopedia," 85.

¹⁰¹ *Ibid.*

Collectio and Divisio

Despite the self-deprecating rhetoric of the compilers and their commentators, and with the perceived openness of the encyclopedist in mind, the skills of medieval encyclopedists are evidenced by their ability to compile and divide the most important information. The encyclopedist's complex task is to make editorial decisions, choose sources and design organizational structures for the text. One of the most influential medieval writers to discuss this editorial process and its value in teaching and learning is twelfth-century theologian Hugh of St. Victor. Sometimes labeled an encyclopedia itself, Hugh's *Didascalicon* (c.1120) outlines essential "areas of knowledge" and defines methods for writing, reading, and learning this content.¹⁰² Like the great medieval encyclopedias noted earlier in this chapter, including *On the Properties of Things*, this work draws significant inspiration from the encyclopedia of Isidore of Seville.¹⁰³

As noted by Kimberly Rivers, Hugh discusses the value of *compendia* in terms of the collection of important materials in one accessible location. An effective teacher, orator or author is one who is able to highlight what is truly significant among the overabundance of information available. An effective student, as the mirror of this focusing teacher, is able to analyze and make these distilled principles part of his/her own mind through visualized representation. Ideally, these mental representations allow the student to see the world of more complex knowledge that rests behind the representative

¹⁰² Hugh of St Victor, *The Didascalicon of Hugh of Saint Victor: A Medieval Guide to the Arts*, trans. Jerome Taylor, (New York and Chichester, West Sussex: Columbia University Press, 1991), 3.

¹⁰³ Dan Terkla, "Hugh of St Victor (1096-1141) and Anglo-French Cartography." *Imago Mundi: The International Journal for the History of Cartography* 65, no. 2 (2013): 161-174, 163.

fragments.¹⁰⁴ Hugh tells his readers that compendia, as books and as thinking tools, are designed to arrest the reader or listener's attention and allow for the retention of the expressed material. The abilities of the information receiver, who is easily distracted and overwhelmed, are kept always in mind. Hugh writes,

When, therefore, we treat of any art—and especially in teaching it, when everything must be reduced to outline (*compendium*) and presented for easy understanding—we should be content to set forth the matter in hand as briefly and clearly as possible, lest by excessively piling up extraneous considerations we distract the student more than we instruct him. We must not say everything we can, lest we say with less effect such things as need saying.¹⁰⁵

In the case of an encyclopedia, the form of the book and the way that it combines and distills many sources into a simpler form is intended to help the reader to avoid certain pedagogical dangers.

In the preface to his *On the Sacraments of the Christian Faith (De Sacramentis)*, Hugh explains that he has put the above principles of *compilatio* to work, writing,

...I have compressed this brief *summa*, as it were, of all doctrine into one continuous work, that the mind may have something definite to which it may affix and conform its attention, lest it be carried away by various volumes of writings and a diversity of reading without order or direction.¹⁰⁶

This explanation of the monumental project highlights two principal goals. The first is that of *compilatio*, as discussed above. The second is that in the process of abbreviating the text to make it shorter and more accessible to the reader, the content has been given structure through division. The project of compressing and dividing knowledge into parts

¹⁰⁴ Kimberly Rivers, "Memory, Division, and the Organization of Knowledge in the Middle Ages," in *Pre-Modern Encyclopaedic Texts*, 156.

¹⁰⁵ Hugh of Saint Victor, *The Didascalicon*, 90.

¹⁰⁶ Hugh of Saint Victor, *On the Sacraments of the Christian Faith (De Sacramentis)*, trans. Roy J. Deferrari (Cambridge: Medieval Academy of America, 1951), 3.

(*divisio*) is, according to Hugh, one that requires skill and analysis, as the hierarchical partitions themselves are informative. Ideally, they should be based on carefully differentiated hierarchies in which the author leads the reader from broad *genera* to the narrower level of *species*, in much the same way that Bartholomaeus, for example, starts his discussion of birds and sky creatures in general terms before moving to the analysis of particular types.¹⁰⁷ As this organizational structure is so significant, the process of compiling and dividing is considered a form of *analysis (divido)*. As Kimberly Rivers writes,

‘Dividing’ literally means partitioning a text into increasingly smaller sections in order to create a ‘brief compendium’; The division is a physical one but does not consist so much of breaking the text... as of making hierarchical distinctions.... This division preserves the cohesion of the text, since each section is nested inside the preceding one.¹⁰⁸

From this is born a knowledge system which is not strictly linear, but which can be accessed at multiple points.¹⁰⁹ Again, as I will discuss in Chapter Six, this emphasis on the compilation, compression, and division of information to assist in learning is reflected in the diagrammatic and list-like representational strategies found in several French Bartholomaeus manuscripts from the later middle ages.

(iii) Encyclopedic Images and Cognition

The understanding of the connection between encyclopedic text and information-rich image is also deeply rooted in the works of Hugh of St. Victor, who has been described by Dan Terkla, as “a visual thinker” who “understood the mnemonic and cognitive power

¹⁰⁷ For an outline of the major division in Bartholomaeus’ text, see Appendix B.

¹⁰⁸ Rivers, “Memory, Division and the Organisation of Knowledge,” 155.

¹⁰⁹ Ibid.

of physical and mental images.”¹¹⁰ Given the connection between collection, division, and analysis noted above, it is perhaps not surprising that encyclopedias were viewed in relation to contemporary theories of cognition and memory throughout the middle ages.¹¹¹ While Rivers’ argument in “Memory, Division and the Organisation of Knowledge in the Middle Ages,” discussed above, is focused on the organization of texts and their use of finding aids, there is a clear connection between the structures of compendia and the visual forms of diagrams and visual lists. This link, though not often mentioned in current scholarship, would have been clear in the minds of many readers of medieval encyclopedias.

While encyclopedias functioned on many levels and were created to suit the particular needs of their patrons, viewing images in *On the Properties of Things* in relation to the mnemonic and rhetorical arts does much to help us understand the distinctive epistemic responsibilities placed on the diagrammatic images in the manuscripts studied in this dissertation, particularly BnF fr. 135/6 in Chapter Six. The strategies used here are based, like the encyclopedic text itself, on the mnemonic and analytical power of the collection and division of information.

According to Hugh of St. Victor’s *Didascalicon*, notions of collecting and dividing are essential to the cultivation of understanding. These are crucial features of the encyclopedic genre, which is at once a *compressed summary* of important sources and a *divided list*. Reducing complex arguments to simple outlines, and then segmenting those outlines into discrete, almost diagrammatic, parcels of information is of the utmost

¹¹⁰ Terkla, “Hugh of St Victor and Anglo-French Cartography,” 162.

¹¹¹ Rivers, “Memory, Division and the Organization of Knowledge,” 157.

importance to both information management and the projects of teaching and learning.¹¹²

As Hugh writes in the *Didascalicon*,

Concerning memory I do not think one should fail to say here that just as aptitude investigates and discovers through analysis (*divido*), so memory retains through gathering (*collectio*). The things which we have analysed in the course of learning (*quae discendo divisimus*) and which we must commit to memory, we ought, therefore, to gather.¹¹³

For Hugh and his students, these forms of thinking could be reproduced visually. The best evidence we have for this comes in the form of a diagrammatic painting of “The Mystic Ark,” described at length in Book I of *De archa Noe* (Figure 2).¹¹⁴ Its purpose was to act as a map and visualization of the history of salvation in one encyclopedic image for use as a pedagogical aid.¹¹⁵ While no medieval example of this image survives, there is plenty of evidence that a material version of the salvation map was used in Hugh’s schoolroom and in others across Europe.¹¹⁶ This complex image represents Hugh’s entire cosmological framework compressed into a frame that provides nearly endless opportunities for exegesis. The end goal of the use of this visualization was the creation of a deeply internalized mental representation that would allow the viewer to recall the summary of this important information.

The main organizing principles of this visual symbol system, like a textual compendium, are those of *collectio* and *divisio*. Specifically, in “The Mystic Ark” Hugh draws together the divided six days of Creation, the Zodiac, the months, the winds, the

¹¹² Ibid., 155.

¹¹³ Hugh of Saint Victor, *The Didascalicon*, 93.

¹¹⁴ Conrad Rudolph, “First, I Find the Center Point”: Reading the Text of Hugh of St. Victor’s “The Mystic Ark,” *Transactions of the American Philosophical Society* 94, no. 4 (2004): i-110.

¹¹⁵ Ibid., 3.

¹¹⁶ For further discussion, see Terkla, “Hugh of St Victor (1096-1141) and Anglo-French Cartography,” 161.

Evangelists, a world map, the four ascents, the regions of the earth, and a world of Biblical knowledge in one harmonious diagram that could be used as a material tool for analysis.¹¹⁷ It is full of hundreds of visual symbols for topics that are essential to the encyclopedic project seen in Bartholomaeus' work and others.¹¹⁸ Though these strategies of collecting and dividing are discussed specifically with regard to *text* in Hugh's *Didascalicon*, "The Mystic Ark" demonstrates an understanding of visual parallels.¹¹⁹

The specific images found in compendia like *On the Properties of Things* have two primary functions that are directly related the strategies of collection and division as noted above. First, they are (i) markers of the primary and largest divisions of the text. They act as visual "bookmarks" for the reader, who can use them to find a particular section of text quickly and form memories around the hierarchical arrangement of information.¹²⁰ To add nuance to our understanding of this function, I argue that they make the nested structure of the book visible.

To take a particularly clear example, in the case of BnF fr. 136 a relatively large image showing a rich variety of birds fills the width of one column of text on fol. 12, marking the beginning of Book XII, *De avibus* (Figure 3). This image, which demonstrates some of the range of activities and habitats of birds, has a corresponding

¹¹⁷ Rudolph, "First, I Find the Center Point," i-7.

¹¹⁸ Ibid., 3.

¹¹⁹ These strategies stimulate understanding and memory using techniques that can be found throughout the material codex. Though this dissertation is largely focused on the study of miniature painting, it is clear that overall page design and visual finding aids that follow these widely understood guidelines also contribute to the power of the codex as a complex information technology.

¹²⁰ As noted in the introduction, the argument that images can act as place markers in medieval encyclopedias is addressed directly in Sandler, "Encyclopedia," 387-88. A similar argument has also surfaced in regard to several types of images that appear in illuminated manuscripts and illustrated printed books and is not limited to what I've called epistemic texts. See for example, Roger S. Wieck, *Painted Prayers: The Book of Hours in Medieval and Renaissance Art* (New York: George Braziller, Inc., 1997).

rubric noting, “*cy commence le XIIIe livre du quell le premier chappitre est des oyseaus en general.*” Following this, a series of thirty-eight smaller images filling just a third of the width of a text column each show a single species of birds. The isolation of a single type of creature in a smaller image visualizes the fact that the discussion of flying creatures becomes more specific at this later point in the text. On fol. 16 of BnF fr. 136, for example, a smaller image of six bees flying around a hive is accompanied by the chapter rubric, “*le cinquiesme chappitre des mouches qui font le miel*” (Figures 4 & 5). The diminishing size and increased specificity of the subject and chapter description highlight the nested structure of the encyclopedia and the hierarchical relationship between *genera* and *species*.

Because most Bartholomaeus manuscripts are decorated with only one miniature per book, this example of the thirty-eight birds is unusual in the fineness of its divisions. Even when fewer pictorial elements are included in each book, however, illustrative programs in encyclopedias can still suggest something about the structure and divisions of the text. In BnF fr. 9141, for example, the single miniature that illustrates Book XII of Bartholomaeus’ text is divided into a quadripartite grid that reflects the textual list of birds that follows (Figure 6).

The second epistemic function of these images as it relates to the qualities of collection, compression, and division, particularly those found in BnF fr. 135/6, is that they collect, summarize, and then reduce the content of the text or a particular branch of knowledge into a more manageable form (usually a single miniature). The visualizations discussed in my case studies are less complex and narrower in scope than Hugh’s “Mystic Ark”, discussed above, but they use similar visual strategies. Once internalized,

these mind-mirroring material images become part of a series of linked mental images that contribute to the intellect of the reader.¹²¹ An example of an image that collects and summarizes a significant portion of Bartholomaeus' text illustrates Book VIII, *De mundo et celo*, on folio 285 in BnF fr. 135 (Figures 7 & 8). Here, the miniature is composed of two concentric circles; the outer ring pictures the symbols of the zodiac in a series of divided segments, and the inner circle is divided into four patterned surfaces representing the four elements. It is likely, given the way that Bartholomaeus describes the workings of the zodiacal system in the related text, that the central circle represents the earth surrounded by the celestial band, divided into twelve sections. The signs of the zodiac appear to have been ordered conventionally and no attempt has been made to group them according to their correspondence with the elements. Instead, the elements are pictured in a way that keeps the image consistent with the arrangement seen in the illustration of the elements and the humours that precedes Book IV, *De elementis* on folio 91 (Figure 9). While the creator of this miniature has not been particularly rigorous in the illustration of this material when compared, for example, with the Zodiac Man image found in *Les Très Riches Heures du Duke de Berry* (Figure 10), the illustration is full of references to the text. For example, the outside ring on the set of spheres in BnF fr. 135 *De mundo et celo* is subtly notched with gold lines, presumably in reference to the specific number of degrees (thirty) that Bartholomaeus ascribes to each division in the zodiac (Figure 8). These are not exact in number or precise in terms of geometry and the image could not, therefore, be used for making calculations or astrological predictions. They do, however,

¹²¹ Giselle De Nie, and Thomas F.X. Noble, eds., *Envisioning Experience in Late Antiquity and the Middle Ages: Dynamic Patterns in Texts and Images* (Burlington, VT: Ashgate, 2012).

remind the viewer of the divisions in the zodiac and make the information density of the text visual.

The cognitive function of these representations is sophisticated and depends on the agency of the reader-viewer. Hugh's *Mystic Ark*, and the images labeled as diagrammatic or list-like in my discussion of BnF fr. 135/6, challenge the reader to engage with epistemic content through extratextual forms of mediation. Like the "gapped" encyclopedic text which conveys the principles of a topic while leaving apertures into which the viewer can insert his or her existing knowledge, they inspire careful analysis on the part of the reader-viewer.¹²² Rivers notes that, "For Hugh, *compendia* reduce necessary knowledge to a memorable and intelligible form. The key to them is that the teacher or learner has selected the most important information to learn and to remember. *From these selections, all other material may be derived.*"¹²³ I argue that challenging images could serve the same function as an outlined text, acting as an amplification. As the audience toils to fill in visual interstices, s/he is free to evaluate, combine, and create new knowledge with the same freedom as is afforded by the ad hoc and unfixed nature of the text. The author and teacher, Bartholomaeus, collects and compiles to assist in his students' learning, but the active reader/learner must complete similar tasks in order to synthesize the information and infer the bigger picture. This process of active synthesis and inference is the central goal of the encyclopedia as a tool for thinking in the middle ages.

As this chapter has shown, medieval encyclopedias were important technologies that used multiple systems to manage information and engage their audiences in the

¹²² Stafford, *Echo Objects*, 43.

¹²³ Rivers, "Memory, Division and the Organization of Knowledge," 156 (my italics).

active synthesis and use of their content. The principal characteristics discussed here, openness to adaptation, the collection of a vast corpus of knowledge on multiple topics, and the division of this information into meaningful hierarchies can be found in both encyclopedic texts and images. Though I have discussed encyclopedias in general terms here, as tools for thinking made for individual patrons, these technologies changed over time. They were textually and materially adapted to the needs of their historically situated audiences and were revised to include new information or remove what was no longer desired. In the next chapter, I turn from defining the general characteristics of encyclopedias and their images as medieval information management tools, to the changing nature of the genre as it was copied throughout the middle ages. After following the reception history of *On the Properties of Things* from Bartholomaeus' schoolroom to the Court of Charles V of France, I return to the visual by examining the material translation of Jean Corbechon's French prologue.

Chapter Two: The Cultural Translation of *On the Properties of Things*

In this chapter, I address the changing audience for medieval encyclopedias in general, and *On the Properties of Things* in particular. In order to historically situate the fifteenth-century case studies that follow in Chapters Four, Five and Six, I first (i) explain the three key phases in the reception history of the genre as proposed by Michael W. Twomey.¹²⁴ In the second part of the chapter, I (ii) focus on the specific historical context of the French translation of *On the Properties of Things* in the court of Charles V. I describe some of the most salient differences between Latin text and the French translation, and highlight parallels between translator Jean Corbechon's French prologue and the dedication miniatures found in some late fourteenth-century frontispieces. This expanded reception history and discussion of the new front matter is important to my argument because it shows that the addition of an illustrative program is part of a larger shift in the understanding of the book by a specific audience. The chapter, thus, roots the miniatures designed to accompany Bartholomaeus' text in the process of textual and cultural *translation*. In addition, each of the three key phases of the encyclopedia's reception history can help us to understand the value of *On the Properties of Things* for the fifteenth-century elite audience that continued to use the book as an educational tool and as a source-book for the social performance of knowledge.

¹²⁴ Michael W. Twomey, "Inventing the Encyclopedia," in *Schooling and Society: The Ordering and Reordering of Knowledge in the Western Middle Ages*, ed. Alasdair MacDonald and Michael W. Twomey (Leuven, Paris & Dudley, MA: Peeters, 2004).

(i) Reception History of the Genre

Both Michael W. Twomey in his essay, “Towards a Reception History of Western Medieval Encyclopedias in England Before 1500” and Elizabeth Keen, in *The Journey of a Book: Bartholomew the Englishman and the Properties of Things*, outline the reception history of the encyclopedic genre by dividing what we know about the consumption of these books into three key phases that encyclopedias evolved through during the medieval period. As these three phases are meant to chart developments in the ways that various audiences used and understood encyclopedias, changes that are made to the texts or images are understood as symptoms of an adjusted purpose rather than its causes.¹²⁵ This body of scholarship takes an interest in the genre of the encyclopedia in general, so it is important to note that these divisions have not been designed to chart the transformations of Bartholomaeus’ text alone. In encyclopedic style, Twomey sketches out this highly organized reception history by using the kinds of evidence left behind by the individuals, institutions, and intellectual communities who used these books in the periods under discussion.¹²⁶

The Encyclopedia in Education

The first key phase in this extended history, which Twomey identifies as starting in the seventh century, probably with Isidore of Seville, casts encyclopedias and compendia

¹²⁵ The idea that responses can be understood as “symptoms of the relationship between image and beholder” can be found in David Freedberg, *The Power of Images: Studies in the History and Theory of Response* (Chicago and London: University of Chicago Press, 1989), xxii.

¹²⁶ Twomey, “Towards a Reception History of Western Medieval Encyclopaedias in England before 1500.” in *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress*, ed. Peter Binkley (Leiden, New York, Koln: Brill, 1997)

almost exclusively in the role of teaching tools. This phase, which can be charted by the presence of the books in university *taxatio* lists, is the longest and includes significant developments that make it difficult to understand it as a homogenous category on any level aside from this primary function.¹²⁷ In this early phase, encyclopedias were used in a way that reflected Bartholomaeus' intentions, likely because it was often the authors themselves and their close associates who were the first "users." The writing of *De proprietatibus rerum* in 1240 came during an explosion in compendium culture that included the production of Alexander Neckham's *De naturis rerum* and Thomas de Cantimpré's book of the same name. Bartholomaeus' book is distinguished as being among the last of the famous compendia to be written in the thirteenth century.

Each of these texts is thought to have been produced for teaching purposes and *De proprietatibus rerum* was probably written specifically for the student friars that Bartholomaeus was educating in Magdeburg.¹²⁸ This version of the book, it has been argued, is a more sophisticated and organized variant of the practice of circulating teachers' reading notes.¹²⁹ Each of the encyclopedists noted here was an educator who presumably composed these texts for use in their own classrooms. As Keen notes, however, these texts continued to be used in schools and by teachers and students when they first began to circulate beyond the immediate circle of the author.¹³⁰ Though few

¹²⁷ Ibid., 332.

¹²⁸ M.C. Seymour and Colleagues, *Bartholomaeus Anglicus and His Encyclopedia* (Aldershot, Hampshire and Brookfield, Vermont: Variorum, 1992), 12-13; Donal Byrne, "Rex Imago Dei: Charles V of France and the *Livre des propriétés des choses*," *Journal of Medieval History* 7, no. 1 (1981): 97-113, 98; Twomey, "Towards a Reception History of Western Medieval Encyclopaedias," 333.

¹²⁹ Ann M. Blair, *Too Much to Know: Managing Scholarly Information before the Modern Age* (New Haven: Yale University Press), 7.

¹³⁰ Elizabeth Keen, *The Journey of a Book: Bartholomew the Englishman and the Properties of Things* (Canberra, Australia: Australian National University Press, 2007), 4-6.

schoolbook lists survive from this period, those that do frequently include encyclopedic texts.¹³¹ In the context of both the Franciscan schoolroom and the medieval university, the structure of the book and its clear, hierarchical management of information was suitable to the idealized mastery of “ordered learning.”¹³² If we believe Bartholomaeus, who claims in his prologue that he wrote the book in order to help “the young and uneducated to learn everything necessary to ‘unveil’ the meaning of the Holy Scriptures,” copies of these texts were used as an accompaniment to reading the Bible.¹³³

Understanding the links between Scriptural knowledge and knowledge of the natural world would help students to comprehend both.

The early use of encyclopedias seems a proper fit if we consider that the genre is likely to be an adaptation of circulated reading notes and epitomes that claimed to be easily understandable summaries of material that, for one reason or another, may have been considered inaccessible to the audience.¹³⁴ This increased accessibility was achieved by making the content easier to grasp through editing and organization, as Bartholomaeus claims to do with his book, and through increasing the availability of significant parts of canonical texts through repeated copying and distribution.¹³⁵ In this early context, the book is an intellectual primer and companion to the Bible that could help the student to link his or her knowledge about the everyday world with the properties of the sacred

¹³¹ For a full account, see Twomey, "Towards a Reception History of Western Medieval Encyclopaedias," 335-336.

¹³² John van Engen, ed. *Learning Institutionalized: Teaching in the Medieval University* (Notre Dame, Indiana: University of Notre Dame Press, 2000), 3.

¹³³ Lucy Freeman Sandler, "Encyclopedia" in *Studies in Manuscript Illumination 1200-1400* (London: The Pindar Press, 2008), 401.

¹³⁴ Blair, *Too Much to Know*, 34.

¹³⁵ Sandler, "Encyclopedia," 401.

world.¹³⁶ Materially speaking, the earliest copies of Bartholomaeus' text were circulated as relatively simple and unillustrated Latin books. It is in this phase where the closeness to reading notes or *florilegia* is most apparent—this closeness to summary texts is reflected in the structure of the book, which contains very little by way of commentary, comment, or contextual analysis.¹³⁷ In its early classroom use, the analysis of the text and the commentaries would likely have been provided in-person by the magister or another teaching authority.

Encyclopedias as Source-Books for Sermon Writing

The second key phase in Twomey's organizational scheme, which he suggests starts in the thirteenth century, involves the use of encyclopedias as tools for people writing sermons or gathering materials for the composition of new religious texts. It is in this period that we begin to see the book being used as a reference tool. It is important to note that this stage of the work's reception history is likely to have overlapped, at least to some degree, with the first.

Though materially speaking, copies remained small and modestly adorned, this second phase sees a change to the format of *On the Properties of Things* through the addition of heavy marginal commentaries. The earliest glossed example is dated to about 1270, just 30 years after the writing of the book, but the same or similar additions are found in about two thirds of the copies from this period.¹³⁸ The addition of a gloss by a later, anonymous writer is not at all unusual and is found in other encyclopedic texts at

¹³⁶ Byrne, "Rex Imago Dei" 98.

¹³⁷ Keen, *The Journey of a Book*, 7-8.

¹³⁸ Twomey, "Towards a Reception History of Western Medieval Encyclopaedias," 345.

this time as well. The glosses are described, particularly by Elizabeth Keen in her textual analysis, as uneven and clearly focused on certain areas of the text.¹³⁹ Judging by the different tone of writing used, most who study this work agree that Bartholomaeus did not add these commentaries. These additions presumably made the book more useful for this new function and audience, who would not use the book under the direct supervision of a teaching authority. The commentaries provide a “moralizing” layer over top of the central text and are designed to be useful to preachers looking for “hidden meanings” in its content.¹⁴⁰ Focused on the areas that would be most useful to this kind of reader/writer, they are reading guides that can help the user to search the content, deepen understanding of the text, and fill sermons with “approved” interpretations.¹⁴¹ The commentaries make connections for the reader, with particular focus on clarifying the relationships between the created world and Creator. The addition of the commentaries also gives Bartholomaeus’ work the format associated with learned texts.¹⁴²

It is difficult to find examples of Bartholomaeus manuscripts that we can say with certainty were used as source books for sermon-writing mendicants. One example, however, could be the University of Victoria’s Ms.Lat.1 (Figure 11), a late thirteenth-century Latin book that is likely to have been produced in Paris. While it lacks the expected commentaries, the book shows further careful compressions that make it an unusually small, light, and concise version of the text. While these editorial changes are not adequate evidence to push this particular copy out of the context of the University of Paris, this level of abbreviation is not what we would expect to see in a book produced

¹³⁹ Keen, *The Journey of a Book*, 8 & 38.

¹⁴⁰ *Ibid.*, 8.

¹⁴¹ Twomey, "Towards a Reception History of Western Medieval Encyclopaedias," 345.

¹⁴² See Van Engen, *Learning Institutionalized*, 3.

for theology or arts students. Further research into the nature of the editorial decisions made by the scribe/patron could lead to more definitive answers about the intended audience for this manuscript.

Even with this new audience, *On the Properties of Things* maintains a purpose in both the cathedral schoolroom and the university. In the thirteenth century, according to Juris G. Lidaka, Bartholomaeus' text was also being used as a reference tool for English arts students at lower levels.¹⁴³ Agreeing with Rouse and Rouse, he suggests that, by this time, the book's instructional function was slightly modified and it was no longer part of the official curriculum.¹⁴⁴ The title appears in several *taxatio* lists in this period including those of the University of Paris, but its placement therein changes over time. In 1275, the book was found on the natural history reading list, yet by 1304 it had been placed amongst materials considered useful for composing sermons, including the Bible and its commentaries, and concordances.¹⁴⁵ This change and its link to the concordances seems to indicate that the book was understood as being valuable to potential readers on the basis of its searchability and convenient organization. This text was a practical possession or "working object," a place to look for facts, develop ideas, and check interpretations.¹⁴⁶

¹⁴³Juris Lidaka, "Bartholomaeus Anglicus in the Thirteenth Century," in *Pre-Modern Encyclopaedic Texts*. There is some evidence that this text included relatively wide circulation in France as well, as it appeared on the lists of the Parisian stationers in 1284 and 1304. See Seymour, *Bartholomaeus Anglicus and His Encyclopedia*.

¹⁴⁴ See also Twomey, "Towards a Reception History of Western Medieval Encyclopaedias," 346-7.

¹⁴⁵ Lidaka, "Bartholomaeus Anglicus in the Thirteenth Century," 397-8.

¹⁴⁶ *Ibid.*, 405.

The Vernacular Private Library

Twomey's third and final key phase centers on the private ownership of encyclopedias and the reception of vernacular copies produced throughout Europe. This stage is much different from the previous phases because it involves a shift to a private and primarily lay audience. Copies of reference books continued to be owned by members of the clergy, especially in England, but even in these cases encyclopedias would be part of a private library rather than belonging to the church.¹⁴⁷ The new trend in ownership starts in the fourteenth century and the evidence used to reconstruct this mode of use comes primarily from bequest records.¹⁴⁸

It is in the fourteenth century that these books see the greatest changes to their material form. When copied in the vernacular, encyclopedias tend to be larger in format, made of higher quality materials, and are frequently illustrated.¹⁴⁹ There are several distinguishing features that change the way these books look and are read, including that the translations have generally been stripped of the moralizing commentaries that were so important to the way that many of the books had been used in the sermon-writing process. Both Twomey and Keen suggest that the glosses were likely removed because a lay audience would not generally want such a circumscribed reading.¹⁵⁰ Indeed, as I will discuss in Chapter Three and my analysis of the thinking-figure images in BnF fr. 9141,

¹⁴⁷ Twomey, "Towards a Reception History of Western Medieval Encyclopaedias," 354-361.

¹⁴⁸ *Ibid.*, 354.

¹⁴⁹ There is only one extant Latin copy with an illustrative program, Fitzwilliam MS CFM 15. See Sue Ellen Holbrook, "The Properties of Things and Textual Power: Illustrating the French Translation of *De Proprietatibus Rerum* and a Latin Precursor" in *Patrons, Authors and Workshops: Books and Book Production in Paris Around 1400*. eds. Godfried Croenen and Peter Ainsworth (Louvain, Paris and Dudley, MA: Peeters, 2006), 387-403.

¹⁵⁰ Twomey, "Towards a Reception History of Western Medieval Encyclopaedias," 345 & 354-361; Keen, *The Journey of a Book*, 8-9.

this audience would likely have preferred a more “open” and interpretable version of the text. The absence of moralizing commentaries would allow readers greater freedom to draw on the information in the text for their own purposes, whether they required spiritual guidance or knowledge on the topic of natural history. In certain cases, the removal of the commentaries may have had the advantage of creating a less labour intensive production process, but in the case of most French Bartholomaeus manuscripts, that labour was simply transferred to the production of finer parchment and elaborate decorative programs.

In this phase, Bartholomaeus’ book is the most frequently copied and circulated of all the thirteenth-century Latin encyclopedic texts. There were four vernacular translations of *De proprietatibus rerum* produced in the fourteenth century: a copy produced in a Mantuan dialect (translated by Vivaldo Belcalzar for Guido Buonalcosi in 1309), a Provençal copy made in 1350-55, the French edition translated in 1372, and John Trevisa’s English version, written in 1398/9.¹⁵¹ Though the French translation includes only relatively minor changes to the body of the text, in each case, the translator is responsible for a revision of the Latin original, complete with relevant political additions and often a revised statement of purpose. At this point, each of the vernacular versions can be studied almost as its own text, as their multiple reception histories vary depending on the priorities of the intended audiences. This vernacularization assists in the secularization of the text and helps broaden its readership.

¹⁵¹ Sandler, "Encyclopedia," 396.

(ii) Charles V and the *Livre des propriétés des choses*

Charles V's Translation Program

The translation of *De proprietatibus rerum* was part of a greater program of vernacularization at the court of Charles V, which has been described by Claire Richter Sherman as a “conscious policy to legitimate the new Valois dynasty.”¹⁵² This program involved the production of more than thirty vernacular luxury editions of classical and medieval texts, including Aristotle’s *Ethics*, *Politics* and *On the Heavens*, Augustine’s *City of God*, John of Salisbury’s *Policraticus*, Valerius Maximus’ *Factorum et dictorum memorabilium*, and the Bible.¹⁵³ Byrne argues that these translations had an important political purpose, stating that “translators and painters were in fact the means by which Charles V drew the great works of the common heritage into his personal orbit, thereby investing the monarchy with some of the authority and prestige of these works.”¹⁵⁴

Indeed, the book collecting practices of Charles V are considered especially politicized, compared even with the earlier Valois rulers responsible for initiating the movement towards vernacularization. Though the *Grandes Chroniques de France*, for example, had already been translated in the time of Louis XI, Anne D. Hedeman has convincingly argued that Charles V was the first to transform the text from a generalized “Mirror of Princes” to “an explicitly politicized vision of history.”¹⁵⁵ Many French kings added to the content of this text, but from c. 1375-1379, Charles V substantially reframed

¹⁵² Claire Richter Sherman, *Imaging Aristotle: Verbal and Visual Representation in Fourteenth-Century France* (Berkeley: University of California Press, 1995), 6.

¹⁵³ *Ibid.*, 8.

¹⁵⁴ Byrne, “*Rex Imago Dei*,” 100.

¹⁵⁵ Anne D. Hedeman, *The Royal Image: Illustrations of the Grandes Chroniques de France 1274-1422* (Berkeley, Los Angeles and Oxford: University of California Press, 1991), xxi & 95.

the narrative, focusing the text on the legitimacy of his succession, his rights to Normandy, his connection to royal saints, and “exaggerating English misconduct and minimizing French deficiencies.”¹⁵⁶ This transformation itself represents a complex form of translation that, while not including linguistic vernacularization, involves using text and image to make an existing work meet the needs of a new audience. As I will address below in my discussion of the French version of *On the Properties of Things*, Charles V reshaped even less overtly political texts in a similar fashion.

Charles V’s project of translating important texts into French was coupled with the broader use of the vernacular for the purposes of royal administration. One of the significant consequences of this overall shift is that it helped to soften the boundary between the intellectual and political territories of clerics and those traditionally ascribed to laymen.¹⁵⁷ There is evidence that this resulted in a broader readership for many classical and early-medieval texts. Though the translator Jean Corbechon does not specifically mention an intended readership for *On the Properties of Things*, Nicole Oresme’s prologue to his translation of Aristotle’s *Politics* for Charles V is more specific in this regard. Based on this text, Sherman argues that the translations were meant to be read not just by Princes, but also more widely by “Frenchmen of high intellect.”¹⁵⁸ Both aristocratic readers and members of the *haute bourgeoisie* with personal book collections were probably reading Aristotle. It is likely, given the common circumstances of their translation, that *On the Properties of Things* would have shared this intended audience.

¹⁵⁶ Hedeman, *The Royal Image*, 95-106.

¹⁵⁷ Sherman, *Imaging Aristotle*, 5-6.

¹⁵⁸ *Ibid.*, 6.

The most famous account of the translation of classical texts by Charles V is found in Christine de Pizan's biography of the king. Within it, she describes the wise ruler as being motivated to collect and make "*les plus notable livres*" available to the French elite.¹⁵⁹ The king's earliest commissions were astrological treatises, a personal choice, Sherman suggests, based on an interest in predicting the future of the monarchy in difficult times.¹⁶⁰ The focus of his post-1370 program moved away from the king's dynastic concerns to something that took on a decidedly public and moral tone. Specifically mentioned in Christine's list of important translations carried out by order of Charles V are several works by Aristotle, St. Augustine, John of Salisbury, Valerius Maximus, and the Bible. Surprisingly, she includes Bartholomaeus' work within this most illustrious category while failing to mention other books thought significant enough to be brought into the French royal library, including the works of Seneca, Vincent de Beauvais and Thomas de Cantimpré.¹⁶¹

Though this topic has not been adequately addressed in current scholarship, I speculate that the encyclopedia's popularity, and its position in Christine's list of "*les plus notable livres*" is closely related to Charles V's interest in Aristotle. As my analysis of the Latin and French prologues below will demonstrate, in the context of Charles V's translation program, *On the Properties of Things* could be understood as a guide to Aristotle's writings on natural history and the senses as much as a guide to the scriptures. Aristotle is an unquestionably important source for Bartholomaeus, who liberally excerpts the philosopher's work and uses his organizational scheme to structure the

¹⁵⁹ Byrne, "*Rex Imago Dei*," 99.

¹⁶⁰ Sherman, *Imaging Aristotle*, 7.

¹⁶¹ *Ibid.*, 8-9.

entirety of Book XIX, *De accidentibus*.¹⁶² As I will discuss below, adding to this evidence is the fact that Aristotelian intellectual values are explicitly mentioned in Corbechon's address to Charles V in the French prologue.

Jean Corbechon and the *Livre des propriétés des choses*

The French version of this text, completed in 1372 by Jean Corbechon, an Augustinian hermit and the Chaplain of Charles V, includes several important changes that can give us information about how *On the Properties of Things* was understood by this new audience. The most dramatic of these revisions is the addition of a new prologue, which presents a radically different understanding of the function of the encyclopedia. Specifically, Corbechon writes that the book is suitable, not just for student friars who lack necessary knowledge, but for the education of wise princes. The prologue has a clear political message and addresses the king directly, but it also obliquely informs other lay readers of the value of the encyclopedia and the attitude one should take when reading it.

To Bartholomaeus' students and the mendicant preachers who used the encyclopedia as a sermon-writing tool, the compendium acted as a useful guide to the scriptures because it gathered together knowledge that was otherwise dispersed through the books of saints and philosophers. According to the author, this compiled knowledge could reveal the meaning of the veiled symbols hidden by God in nature and art. As Bartholomaeus explains in his original preface,

audiutorio diuino est presens opusculum compilatum vtile mihi et forsitan aliis qui naturas rerum et proprietates per sanctorum libros necnon et philosophorum dispersas non cognouerunt ad intelligenda enigmata scripturarum que sub

¹⁶² Seymour, *Bartholomaeus Anglicus and his Encyclopedia*, 232-249.

*symbolis et figuris proprietatum rerum naturalium et artificilium a spiritu sancto sunt tradite et velate.*¹⁶³

(Through divine aid the little compilation at hand is useful to me and perhaps to others who have not investigated the natures and properties of things scattered through the books of the saints as well as the philosophers — useful for understanding the enigmas of the scriptures that (under the symbols and figures of the properties of things both natural and made by human art) have been handed down and veiled by the Holy Spirit.)¹⁶⁴

To the lay readers of Corbechon's translation, on the other hand, *On the Properties of Things* was a more general source of wisdom on all things. As Donal Byrne argues, it was framed as “a handy lay guide to the teeming variety of *nature itself*” rather than a key for understanding the spiritual value of the natural world.¹⁶⁵ The French prologue also positions Charles V as a particular kind of ideal reader, the “Aristotelian wise man,” suggesting that the wisdom of the king and his suitability as a ruler, are evidenced by his desire for “*une somme generale contenant toutes matieres.*”¹⁶⁶ Specifically, Corbechon writes,

Cest desir de sapience, prince tredebonnaire, ait Dieu fichie, plante, et enracinè En vostre cuer fermement des vostre jeunesse, siccome il appert magnifestement en la grant et copieuse multitude de livres de diverses sciences que vous avez assemble et assemblez chascun jour par vostre fervent diligence. Esquelz livres vous puisiez la parfone yaue de sapience au siau de vostre vif entendement pour la espendre aux conseils et aux jugemens au profit du people que Dieu vous a mis a gouverner...

...Pourtant est venu en vostre noble cuer un desir d'avoir le livre des proprietiez des choses, lequel est ainsi comme une somme generale contenant toutes matieres, car il traite de Dieu et de ses creatures tant visibles comme invisibles, tant corporelles come esperituelles, du ciel, de la terre, de l'air, de la mer, et du feu, et toutes les choses qui en eulx sont. Et au desir que vostre royal cuer a d'avoir ce livre, peut on

¹⁶³ Bartholomaeus Anglicus, *De proprietatibus rerum*, Frankfurt, 1601, 1. Transcription from Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 12.

¹⁶⁴ Translation assistance by Iain Higgins, Catherine Harding and Gregory Rowe.

¹⁶⁵ Byrne, “*Rex Imago Dei*,” 99 (my italics).

¹⁶⁶ *Ibid.*, 102.

*cogeoignoistre evidentment que vous estes habitué et revestu de l'abit de sapience, car selon le philosophe Aristote ou livre de la metaphisique, il affiert au sage de savoir toutes choses. En ce donc que vous desiriez ce livre qui traite de toutes choses, vous monstrez que vous avez plaisance et amour a sapience. Et pour vostre bon desir accomplir, il a plu a vostre royal majeste a commander a moi, qui suis le plus petit de vos chappellains, et vostre creature et la creature de vos mains, que je translate le livre devant dit de latin en francois le plus clerement que je pourray.*¹⁶⁷

(This desire for wisdom, very gracious prince, God has sown, planted, rooted firmly in your heart since your youth, as is patently established by the great and abundant multitude of books of different sciences that you have assembled and assemble each day by your fervent diligence. From these books, you have been drawing the water of wisdom with the bucket of your lively mind in order to pour it out in counsels and judgments for the profit of the people that God has placed you to govern.

However, there has come in your noble heart a desire to have the book of the properties of things, which is in this way like a general collection containing all subjects, for it treats God and all his creatures, visible and invisible, corporeal and spiritual, heaven, earth, air, sea, and fire, and all the things that are in them. And in the desire that your royal heart has to possess this book, one can clearly recognize that, for a long time, you have used to array yourself in the habit of wisdom, for according to the philosopher Aristotle in the book of Metaphysics, it is the property of the wise man to know all things. Because you desire a book that treats all things, you show that you delight in wisdom and love it. And to fulfill your wish, it pleased your royal majesty to order me, the least of your chaplains, and your creature and the creature of your hands, to translate the book afore mentioned from Latin into French as clearly as I could.)¹⁶⁸

While French manuscripts do sometimes include Bartholomaeus' original prologue, Corbechon's translation for Charles V shifts the focus of the text to natural history, Aristotelian intellectual values, and enlightened kingship.¹⁶⁹ It may seem surprising, given this transformation of the prologue, that few other changes are made to the French

¹⁶⁷ Ibid. Byrne's text is an edition produced from the group of 13 French manuscripts, all dating from between 1390 and 1416, that he uses in his study.

¹⁶⁸ Translation assistance by Gregory Rowe and Hélène Cazes.

¹⁶⁹ Byrne, "Rex Imago Dei," 99; Sherman, *Imaging Aristotle*, 4. On the prevalence of Bartholomaeus' prologue in French manuscripts, see Heinz Meyer, *Die Enzyklopädie des Bartholomäus Anglicus: Untersuchungen zur Überlieferungs und Rezeptionsgeschichte von "De proprietatibus rerum"* (Münich: W. Fink, 2000), 325-379.

text. It could be argued, however, that the content needs little revision to make it match the new statement of purpose. In some ways, Corbechon's explanation better represents the vast scope of the encyclopedia's content and the list-driven quality of its prose. As M.C. Seymour and others have noted, Bartholomaeus' original Latin text includes a great deal of information that has no obvious Biblical relevance.¹⁷⁰ The text was already expansive enough to suit the needs of an audience with an interest in the diversity of nature for its own sake.

Apart from the courtly prologue, most of the significant changes seen in individual manuscript copies, such as the exclusion of entire books or sections of text, were presumably made to meet the needs of specific patrons. However, those relatively minor revisions that were part of Corbechon's official translation project are, rather predictably, mostly royalist and nationalist in nature. The most salient injection of the translator's voice can be found in his acid revision to the entry on Bartholomaeus' native *Angleterre*, originally a relatively short section on the formation of Britain based mostly on Isidore, Gregory, and Bede.¹⁷¹ In this case, the translator expresses overt hostility towards the author and his nation writing,

Cest aucteur monster bien en ce chapitre qu'il fu englois, car il loue moult fort Engleterre a son euider, car il vault escheuer la condicion du preste qui fut ars pour ce qu'il blasmoit les reliques, mais il deust avoir pensé que louenge de personne en sa propre bouche enlaidit. Et pour ce dit l'evangille saint Jehan que les jui..s disoient a Jhesu Christ que son tesmoignage n'estoit vray pour ce qu'il donnoit tesmoignage de soy mesmes.

¹⁷⁰ Bartholomaeus diverts from Scriptural content throughout the encyclopedia, but this is particularly the case in Book XV, *De regionibus*, which includes a detailed classification of European nations. See Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 13.

¹⁷¹ Byrne, "Rex Imago Dei," 100.

Secondement, il cuide louer le pais et il le blaisme, car il dit que ilz descendrent premier des geans, et puis de Brut et de ceulz de Troye la grant et puis des Saxons, et disant ainsi il lez fait basteurs en leur donnant plusieurs peres.

Tiercement, il parle moult imparfaitement en ceste matiere, car il lesse la conquest faite par le duc Guillaume et par les normans, que si vallaimment conquistrent Engleterre que encore en demeurent le enseignes, et en armes et en coustumes. Et ce ne fait a oublier, car moins de honte leur est d'estre vainqus par les francoys ou par les normans que d'estre conquis par les Saxons; si deust ont toutes ces conquestres lesses piur couvrir leur honte ou ce il le tient a honneur, il ne devoit pas oublier la conquest de duc Guillaume don't les roys des anglois portent les armes avec ...pou de adrioustemment.¹⁷²

(This author shows well in this chapter that he was English, for he believes he very vigorously praises England, when he actually shows that he wants to avoid the destiny of the priest who was burned because he doubted the relics, but he should have thought that one's praise coming from one's own mouth makes this person ugly. And for this reason Saint John the Evangelist says that the Jews used to tell Jesus Christ that his testimony was not true because he gave testimony of himself.

Secondly, he believes he is praising the country and he insults it, for he says that they descend first from giants, and then from Brutus and those from great Troy and then from Saxons, and in so speaking he makes them bastards by giving them many fathers.

Third, he speaks very incompletely about this material, for he omits the conquest made by Duke William and the Normans, who so valiantly conquered England that signs of it still remain, both in arms and in customs. And this fact is not to be forgotten, for there is less shame for them to be vanquished by the French or by the Normans than to be conquered by the Saxons; if he ought to have omitted all these conquests in order to hide their shame or for him to treat it as an honour, he ought not forget the conquest of Duke William, whose arms the kings of the English carry with little skill.)¹⁷³

This insertion squares well with the political purposes of the translations, highlighting the supremacy of French culture. Significantly, it also *directly challenges* the

¹⁷² Ibid., 100-101. Byrne's text is an edition produced from the group of 13 French manuscripts, all dating from between 1390 and 1416, that he uses in his study.

¹⁷³ Translation assistance by Gregory Rowe and H el ene Cazes.

authority of Bartholomaeus Anglicus, who claims at the end of his entry that all other countries need the assistance of England because it is the most plentiful country in the world. Reflecting Bartholomaeus' compilation strategy of juxtaposing conflicting authorities, Corbechon layers his rebuttal on top of the offending text rather than replacing it. This models a form of reading that encourages active analysis of the central text, a mental activity that is visualized in many images in Bartholomaeus manuscripts.¹⁷⁴

Visual and Material Translation

Apart from the criteria of "illustriousness" or "notability," the group of texts selected for translation by Charles V and his advisors was also considered suitable because they had not yet been illustrated.¹⁷⁵ Transforming these sometimes humbly produced classical and medieval texts into luxurious manuscripts with sophisticated illustrative programs in a courtly French style was part of the translation process.¹⁷⁶ Indeed, Sherman argues that "Charles V's taste for heavily illustrated manuscripts of French translations of Latin texts is analogous to his preference for the vernacular. Illustrations concretize and update concepts of the source language."¹⁷⁷

Beyond appealing to the refined tastes of the new intended audience, illustrations could also function as a form of "visual metatext," demonstrating cultural ownership of

¹⁷⁴ The theme of the "aggressive" reader is central to the analysis in Chapter Three. For the significance of this type of interaction with texts in late-medieval lay reading, see Laurel Amtower, *Engaging Words: The Culture of Reading in the Later Middle Ages* (New York: Palgrave, 2000).

¹⁷⁵ Sherman, *Imaging Aristotle*, 31. There is, in fact, one illustrated Latin copy of *On the Properties of Things* but this is likely to have been unknown to the illustrators of Charles V's copy. See Holbrook, Sue Ellen, "The Properties of Things and Textual Power," 367-403.

¹⁷⁶ Sherman, *Imaging Aristotle*, 31. Sherman argues that they saw themselves as sponsors of "the New Athens."

¹⁷⁷ *Ibid.*, 31.

the knowledge contained within the codex.¹⁷⁸ A particularly informative part of the visual translation are the frontispieces that appear in many French copies of the encyclopedia and add a new layer of meaning to Corbechon's prologue, discussed above. These images often include a form of presentation or commission scene and are well suited to the task of depicting Charles V in his guise as "*le sage roy*" with a desire for knowledge of all things. A review of the scholarly literature suggests that this category of images is among the most studied type associated with the manuscript collection of the king, likely because they are an important indicator of both the political motivations behind the project and because they represent a turning point in the reception history of the books in his growing collection.¹⁷⁹

Many surviving French manuscripts have textual and pictorial features that are likely to be related to those in the original manuscript produced for the king.¹⁸⁰ Speculations about the image program of the no-longer-extant exemplar are based on the examination of repeated patterns seen in first-generation copies produced within the French court.¹⁸¹ They also rely on the analysis of relationships between the content of Corbechon's prologue and the images. The specificity of these images, their personalized, idiosyncratic content, and documents that confirm Charles V's involvement in many stages of the production of his manuscripts have led scholars to believe that the king, or

¹⁷⁸ On the concept of "visual metatexts," images that reflect "...how the book came to be or on how its text is to be read and its pictures viewed," see, Joyce Coleman, "The First Presentation Miniature in an English-Language Manuscript," in *The Social Life of Illumination: Manuscripts, Images and Communities in the Late Middle Ages*, eds. Joyce Coleman, Mark Cruse and Kathryn A. Smith (Turnhout, Belgium: Brepols, 2013): 403-437, 404.

¹⁷⁹ See, Claire Richter Sherman, *The Portraits of Charles V of France (1338-1380)* (New York: New York University Press, 1969); Sherman, *Imaging Aristotle*; Byrne, "*Rex Imago Dei*." See also, Donal Byrne, "The Boucicaut Master and the Iconographical Tradition of the *Livre des propriétés des choses*," *Gazette des Beaux-Arts* 92 (1978): 97-113.

¹⁸⁰ Byrne, "*Rex Imago Dei*."

¹⁸¹ Holbrook, "The Properties of Things and Textual Power," 367-403.

at the very least, a learned iconographical adviser with knowledge of the text and the king's goals, was involved in the design of the images.¹⁸²

The project of reconstructing the image program of the first manuscript copy of the *Livre des propriétés des choses* has been undertaken in Donal Byrne in his article, “*Rex imago Dei: Charles V of France and the Livre des propriétés des choses.*”

Examining thirteen illustrated copies of this book produced between 1390 and 1416, Byrne suggests that the original frontispiece was very likely to have been composed as a quadripartite miniature containing three scenes of God creating the universe and one final picture depicting Charles V presenting Jean Corbechon with a codex containing Bartholomaeus' Latin text.¹⁸³ This complicated miniature presents the king both in the act of publicly commissioning the translation and at the same time, as Byrne argues, as an image of God on earth.¹⁸⁴

If Byrne's convincing discussion is valid, the frontispiece in Jean de Berry's copy of the *Livre des propriétés des choses* (Reims, MS 0993, Figures 12 & 13), which was produced sometime before 1416, has many critical similarities with the hypothesized original. This image makes a useful case study for the examination of the presentation images, both due to the close personal relationship between the Duke of Berry and Charles V and because it shares many of the features that suggest an understanding of the political context of the translation program.

The Reims manuscript includes three Creation scene images, which illustrate, sequentially, the creation of the sky and light, the creation of air and water, and finally

¹⁸² Byrne, “*Rex imago Dei*,” 108.

¹⁸³ *Ibid.*, 106.

¹⁸⁴ *Ibid.*

the creation of earth and its population with various types of plant and animal life. In each of these first three scenes, God is represented standing over a circular vignette inside of which is depicted the natural element that is being created. Each vignette is encircled by a scroll upon which appear God's words, which he uses, along with a compass, to conjure the universe.¹⁸⁵ The final scene is a representation of Charles V, seated on his throne and accompanied by a nobleman and perhaps a jester. The king passes a codex, most likely the Latin exemplar that the translator is to work with, to the tonsured and kneeling Corbechon. As in the Creation scenes, Charles V's words are represented on a scroll that flies out to encircle the space above the head of Corbechon, creating a line reaching from the book to the translator. The inscription on the scroll in this particular painting has suffered from great wear, rendering it difficult to read. What is legible, however, suggests that the inscription is the same as or similar to that seen in other examples, the exceptionally direct "*Du livre les proprietiez En cler francois vous translatez.*"¹⁸⁶ This language mirrors Corbechon's prologue but is formulated as a direction from the king rather than a statement of the translator's intentions. Together, word and image highlight the centrality of Charles V in the translation process and invest his actions with meaning.

In extending the message noted in the prologue, many frontispieces elevate the king's desire for a translation of Bartholomaeus' text beyond a display of wisdom to an act of *creative invention*. Byrne interprets the continuity in the four scenes of the frontispiece, which move from the creation of the world to the commissioning of the translation, as a series of speech/creation acts. He explains this point as follows: "In this

¹⁸⁵ For a full explication of the written text, see: Byrne, "*Rex imago Dei*," 104

¹⁸⁶ *Ibid.*, 104. This phrasing is also seen in London BL Additional MS 11612, among others.

setting, we see that Charles V is calling something into being, like God, and, again like God, is doing so by means of a rhymed distich inscribed upon a scroll...the king was intended to mirror his maker not only in act but also in intention.”¹⁸⁷

There are two iconographic elements not discussed in Byrne’s analysis that are nevertheless useful for understanding the role that this type of image plays in the cognitive operations of the text. I mention them now because several of these issues will arise in my discussion of later copies of the encyclopedia (see Chapters Four, Five and Six). One is that, while this book was considered to be one of the most notable in existence by those orchestrating the translation project, the book’s author Bartholomaeus Anglicus is both undiscussed in Corbechon’s prologue and “painted out” of this dramatized process of creation. In essence, the author is reduced to his book. The conventional understanding of the popularity of encyclopedias in their early reception history is based on respect for tradition, and yet here we see the act of commissioning the translation as a *creation of new knowledge* based on sources from the past. Byrne has identified some figures that appear in early copies as generic “sage” types, suggesting “the ancient and venerable pedigree for the Caroline wisdom.”¹⁸⁸ In my view, however, they also privilege the connection between the king and Bartholomaeus’ *sources*, particularly Aristotle if we view the image in conjunction with the prologue.

One reason for the erasure of Bartholomaeus from images of the creation process could have to do with the notion, mentioned earlier, that encyclopedists were not “real experts” and that the value of their work was in direct correspondence with the quality of

¹⁸⁷ Ibid., 107.

¹⁸⁸ Ibid., 105.

the venerable sources used.¹⁸⁹ Another reason, which touches more closely on the political context in which the book was commissioned, could be related to the author's English heritage. Although Bartholomaeus spent most of his scholarly career working in France at the University at Paris, and Charles V had a clear sense of pride springing from a connection with that institution, the king and translator may have felt some ambivalence around the nationality of the compiler in the context of the Hundred Years' War.¹⁹⁰

The original format for the frontispiece image indicates an acknowledgement that a bringing into being is taking place and that the vernacular language has a new status as an appropriate vehicle for the transmission of knowledge. The information transmitted in the book is fundamentally changed, through its images, vernacularization, and the guide for use in the preface, in order to suit the new French audience that Charles V imagined for the text. In turn, this translation brings the authority of Latin into the vernacular with its newly raised status.

The second important feature that remains undiscussed by Byrne is the introduction of several representational strategies that are carried throughout the rest of the book. These formal qualities include the use of diagrammatic devices, such as the division of the image into four quarters that help to categorize information. Another repeated visual theme that features in many later copies of the encyclopedia is the presence of figures who visibly examine vignettes of the created world. In Chapter Four of this dissertation I will study some analogous images of "thinking figures" that show

¹⁸⁹ Robert L. Fowler, "Encyclopaedias: Definitions and Theoretical Problems," in *Pre-Modern Encyclopaedic Texts*, 21.

¹⁹⁰ Holbrook argues that the author's connection to the University of Paris would have heightened the value of the text to Charles V. Though this may certainly have been the case, the additions of Jean Corbechon to the text, particularly around Bartholomaeus' English heritage, suggest that the encyclopedia required rather stern alterations to truly be part of the French intellectual tradition. See Holbrook, "The Properties of Things and Textual Power," 369.

readers interacting with nature in a way that is reminiscent of the way that God surveys the Creation here. The fact that aristocratic readers are displayed in creative activities that mirror those of God and the king speaks to the engagement of the late-medieval lay reader.

Later Illustrations

The repeated presence of the presentation scene in many later manuscripts suggests that Charles V's original manuscript set the tone for illustrative and textual programs in French editions of the text. The images and text work together as part of the same process of *translatio studii*: the absorption of knowledge into elite French culture. This visual and material translation, including the addition of illustrations and the luxurious presentation of the content, are likely to have been part of the appeal to the growing lay audience that patronized this book into the sixteenth century. While there are many meaningful patterns that can be found in the images illustrating various versions of the book, there are also important variations that arise through the process of copying and the movement of the work through time and space. We cannot be sure of exactly how wide the circulation of Corbechon's translation was, but the 45 extant manuscripts and fragments show tremendous variety.¹⁹¹

In later versions of the presentation image, there are two major types of alteration that are likely to stem from the different needs of audiences who were further from the company and political vision of Charles V, his translators, and his iconographic advisers. While the three images of the Creation are often remarkably similar between copies that

¹⁹¹An overview of the range of content and kinds of illustrations found in the 45 known French Bartholomaeus manuscripts can be found Meyer, *Die Enzyklopädie des Bartholomäus Anglicus*, " 325-379.

include this kind of representation, the first type of variation occurs frequently in the vignette depicting the commissioning of the manuscript. This interaction is often transformed into a more traditional presentation scene. In these cases, it is Corbechon who is the primary actor and he presents the completed translation to the king, who is now silent and without a scroll (See, for example, Figure 14).¹⁹² Byrne argues, probably correctly, that this scene has been changed to resemble the type more commonly part of an illuminator's répertoire.¹⁹³ The change in meaning, described by Byrne as a "reversal," was likely either considered unimportant or was unnoticed by the later illuminators and patrons.¹⁹⁴

In many later manuscript copies, the dedication image is transformed further to become a single scene. It is a conventional presentation-type, in which the king is displayed sitting in his throne in a more passive role than he is found in the early copies. Although this type of scene is generally larger, the distancing of the king's commission from these larger acts of Creation, and its movement closer to formulaic iconography, decreases the political impact of the event. This is likely related to the circulation of the book outside the immediate circle of Charles V, to an audience that was more interested in the significance of the book to their own learning than the political agenda of a past ruler. To this end, there are some cases, including BnF fr. 9141 (see Chapter Four), in which the presentation scene is removed altogether. Significantly, this particular case saliently features portraits of the manuscript's first owner, Béraud III of Clermont, and

¹⁹² Byrne, "*Rex Imago Dei*," 106.

¹⁹³ *Ibid.*, 106. The relationships between "innovative" images and those that can be understood as stock images associated with other genres is a topic that will be returned to at several points in this dissertation.

¹⁹⁴ *Ibid.*, 106.

his close circle (a portrait of the patron can be seen in Figure 15).¹⁹⁵ These shifts in the image program reinforce the notion that the book is not stable, but adaptable to the needs of an individual patron. In the case of BnF 9141, emphasis is shifted from the king's knowledge to that of the patron and reader.

While established reception history narratives like Twomey's tend to classify the post-translation period as a single unit for the sake of clarity, the third phase that differentiates the vernacular encyclopedia is varied and stratified. The common focusing on the brief window of time surrounding the encyclopedia's translation places significant limits on the way that we can understand the images that were included and their value to their owners. The wider audience that these books found in the fourteenth and fifteenth centuries was idiosyncratic, and seems to have been more motivated by the personal acquisition of knowledge and a sense of spiritual and intellectual ambition than securing a national intellectual heritage. It is the book's structure and the malleability of its content, rather than the fact that it made Bartholomaeus' classical sources more available, which likely made it interesting for this later lay audience. It helped readers to organize and access the abundance of texts available to them and allowed them to use this knowledge among peers.

The changing reading practices and intellectual values of this audience are a major factor that should be considered when attempting to understand the significance of this text, and its related images, to the late-medieval lay audience. As I will discuss in the following chapter, the individuals who would have used these luxury versions of the encyclopedia were very different kinds of readers than Franciscan sermon writers or

¹⁹⁵ Millard Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master* (London: Phaidon, 1968), 59.

uneducated students taking lessons from a schoolmaster. They had different relationships with material books and different sets of expectations regarding the use and acquisition of knowledge. They were active, questioning agents who wanted to build upon what they read.

Chapter Three: “*Plaisance et amour a sapience*”: The Intellectual Values of Bartholomaeus’ Late-Medieval Readers

In this chapter, I move from the reception history of the genre and the material translation of the encyclopedia to the specific intellectual values and reading practices of Bartholomaeus’ late-medieval lay audience. The last chapter ended with a discussion of the place of *On the Properties of Things* within Charles V’s project of *translatio studii* in the 1370s. To reframe the encyclopedia for the king’s purposes, the translator Jean Corbechon’s prologue addresses Charles V and his capacity for sage rule through reference to “the Aristotelian wise man,” whose desire for a book of universal knowledge reveals his pleasure in, and love of, wisdom.¹⁹⁶ Though this preface was written in praise of the translation’s royal patron, the changing culture of reading among elite patrons of illustrated manuscripts means that Corbechon’s sentiments could also have spoken to the intellectual ambitions of a wider audience into the fifteenth century. It is this wider audience that is the focus of the present chapter.

It should be clear from my discussion of the encyclopedia’s reception history in the previous chapter that, even when relatively few changes were made to the text, vernacular encyclopedias were understood to have a different purpose than their Latin precursors. The lay French audience that commissioned and read luxury manuscript copies of *On the Properties of Things* was interested in, as Donal Byrne argues, “a handy lay guide to the teeming variety of *nature itself*” rather than (or at least in addition to) a

¹⁹⁶ Donal Byrne, “*Rex Imago Dei*: Charles V of France and the *Livre des propriétés des choses*,” *Journal of Medieval History* 7, no. 1 (1981): 97-113, 100.

key to unlocking the veiled scriptural meaning of nature.¹⁹⁷ Indeed, the attitude towards Bartholomaeus' book was so changed that Byrne argues, "It was thus not merely the translated *De proprietatibus rerum* which Charles V offered his people, however accurate that translation may be, but a 'new' work, conceived as a *summa* of the universal lore."¹⁹⁸ But as Byrne's statement implies, with the conceit that Corbechon's translation was largely true to the original, the conception of the encyclopedia as a fresh text has more to do with changing cultural attitudes towards the value of encyclopedic knowledge than a heavy-handed intervention in the text.

In this chapter, I discuss these changing attitudes by studying late-medieval lay perspectives on knowledge and book use in three key ways: (i) silent study and the engaged reader, (ii) manuscript collection and the lay "intellectual brotherhood," and finally, (iii) the co-existence of silent reading and aurality in the form of lagged social performance. These three approaches to book-use clarify the importance of epistemically dense, working images because they highlight reader engagement and the social value of knowledge to the late-medieval lay audience. Moreover, they can help add nuance to Lucy Freeman Sandler's claim that images in encyclopedias function as "material signs of a high estimate of the value of the knowledge contained within an encyclopedia... [that] in turn enhance the value of the book to its possessor."¹⁹⁹ What the intellectual values discussed in this chapter show is that for this specific audience, images in encyclopedias can increase the book's value, not simply through luxury, but because they visualize important knowledge contained within the text. Further, in the case of

¹⁹⁷ Byrne, "*Rex imago Dei*," 99 (my italics).

¹⁹⁸ *Ibid.*, 100.

¹⁹⁹ Lucy Freeman Sandler, "Encyclopedia," in *Studies in Manuscript Illumination 1200-1400* (London: The Pindar Press, 2008), 387-88.

diagrammatic images, they make this knowledge available in a different form that invites additional analysis. The power of encyclopedic images in this context comes from their ability to reveal elements of the intellectual values of their audiences in different forms.

(i) Silent Study and the Engaged Reader

The 1372 French translation of Bartholomaeus' text, and its illustration, come at a time of special interest to scholars of the history of reading. The educated lay readers of lavishly illustrated fifteenth-century manuscripts had different skills and priorities than Bartholomaeus' student friars and other types of "professional readers" such as clerics and academics.²⁰⁰ This elite audience, with its distinctive desires, began to negotiate what vernacular reading meant across all genres of text in this period, resulting in what is regarded as a "realignment" of book culture.²⁰¹

Among other important changes, a new interest in silent reading has been taken as the hallmark of the courtly use of books during the period when my primary case studies were created. The relationship between silent reading and aurality, or the practice of listening to publically read texts as a form of social activity, is the topic that dominates much of the literature surrounding this audience.²⁰² A traditional narrative, constructed principally by Paul Saenger, charts an evolutionary model in which silent reading replaces the types of oral performance for which most new courtly literature was

²⁰⁰ Deborah McGrady, *Controlling Readers: Guillaume de Machaut and His Late Medieval Audience* (Toronto, Buffalo and London: University of Toronto Press, 2006), 8.

²⁰¹ *Ibid.*, 3.

²⁰² See, for example: Paul Saenger, "Silent Reading: Its Impact on Late Medieval Script and Society," *Viator* 13, no. 1 (1982): 367-414; Paul Saenger, *Space Between Words: The Origins of Silent Reading* (Stanford, California: Stanford University Press, 1997); Joyce Coleman, *Public Reading and the Reading Public in Late Medieval England and France*; McGrady, *Controlling Readers*; Amtower, *Engaging Words: The Culture of Reading in the Later Middle Ages* (New York: Palgrave, 2000).

designed.²⁰³ This change in the lay relationship to material books and the written word itself is thought to have had a number of important implications. These include increased literacy levels, a revised emphasis on page layouts, and the use of diagrams and images that were both luxurious and required close study.²⁰⁴ Perhaps most important, silent reading also allowed for a much *emboldened* reader, whose interpretations did not need to be approved by the larger community of co-listeners or official scholarly glosses.²⁰⁵ Saenger comments specifically on the ways this engendered private devotion as well as the phenomena of heresy and pornography.²⁰⁶ But he also writes that the encouragement of an emboldened reader served to destabilize the relationship between the audience and author.²⁰⁷ While later scholars have questioned Saenger's narrative, suggesting that aurality and silent reading co-existed and supported each other into the renaissance, the more nuanced implications of the critical lay reader remain of interest to scholars working in this field.²⁰⁸

The vision of the elite user of luxury books that dominates the scholarship is, in many ways, the opposite of the picture of the uncertain student reader, dependent on a Magister like Bartholomaeus or the use of official commentaries for guidance. By the later middle ages, the model reader had become an individual who took pleasure in and was edified through active engagement with physical books. The most frequently cited illustration of this type of reader is Christine de Pizan, mentioned earlier with regard to

²⁰³ Saenger, "Silent Reading."

²⁰⁴ Ibid. See also Michael Camille, "Seeing and Reading: Some Visual Implications of Medieval Literacy and Illiteracy," *Art History* 8, no. 1 (1985): 26-49.

²⁰⁵ Ibid, 399.

²⁰⁶ Ibid., 413.

²⁰⁷ Ibid., 399.

²⁰⁸ See Coleman, *Public Reading and the Reading Public*.

her commentaries on Charles V's translation program, who opens her *Book of the City of Ladies* by describing herself reading alone and turning a critical eye to the portrayal of women in *The Lamentations of Matheolus*. The subject of Christine's book is partially motivated by her interpretive reading practices, which move her to take action and explain the falseness of what she has read. Laurel Amtower suggests that this agency can be translated into a kind of ethical "reader responsibility."²⁰⁹ The lay reader in the context of her study has an obligation to question and interpret the book and the authorial intention that comes from a new position "*inside the text*."²¹⁰ This sense that the reader is responsible for judging the text mirrors the sentiments expressed by Vincent de Beauvais, as he explained in the preface to his encyclopedia.²¹¹ It is also reflected in Corbechon's layered interjections within the text of *On the Properties of Things*.²¹²

In a similar vein, Deborah McGrady, in her work on the contemporary audiences of Guillaume de Machaut, takes this vision of the active reader further, by describing lay readers as both critical and "inventive" in their ability to "intercept the master text and proceed to reshape and redefine the work as a means of creating new distinctive writings."²¹³ This analysis leads her to argue that Machaut as an author may have been justified in seeing his audience as "aggressive," vying for ownership and authority over the text that he created.²¹⁴ Part of what makes this study on the *Voir dit* so interesting is

²⁰⁹ Amtower, *Engaging Words*, 1-4.

²¹⁰ *Ibid.*, 4.

²¹¹ This is discussed more fully in Chapter One. See also Vincent de Beauvais, *Speculum Maius*, (1964), col. 7 (prologue, 8). See also Ann M. Blair, *Too Much to Know: Managing Scholarly Information before the Modern Age* (New Haven: Yale University Press), 45.

²¹² See especially Corbechon's comment on the description of England, discussed in Chapter Two.

²¹³ McGrady, *Controlling Readers*, 9.

²¹⁴ *Ibid.*, 9.

that McGrady explains how the author reacted to reader response, acknowledging the struggle for control in order to “subsume readers’ responses into its corpus.”²¹⁵ This flexibility is, apparently, part of what made this work so interesting to the courtly audience, who appreciated debate poetry and other types of literature that allowed for, or indeed even called for, their interpretations.²¹⁶

Though much different in terms of both form and content, the popularity of *On the Properties of Things* in fifteenth-century France is very likely to be related to the possibility of private, discursive reading in the lay context that is so frequently linked to “courtly” literary works. Reference books, too, for all of their structural and organizational differences from romances and works like the *Voir dit*, would have been ideally suited to the type of reader who would have enjoyed private study with the aim of questioning and interpreting content on their own. The structure of these books, and the web-like organization discussed earlier in this dissertation, meant that they were ideally designed for a consultative reading experience. The removal of the dogmatic commentaries during the translation process, the presence of a classificatory system, and the suitability of Bartholomaeus’ text for the purposes of a reader-guided experience invited and expanded to accommodate reader response in a similar way to that of the *Voir dit* and other popular narrative works. This type of reading experience can help us to understand the ambivalence around Bartholomaeus as an author/authority. It is possible that this decentralization of the authorial voice would have been appealing to an audience who read in order to use and *interpret* authoritative texts rather than simply accepting them.

²¹⁵ Ibid., 14.

²¹⁶ Ibid., 7.

While the form of the encyclopedia, with its embedded content and rich structure, is unrelated to less formal collections of knowledge, like the commonplace book, it includes features that make it a suitable place to arrange knowledge so that it can be remembered and accessed when needed. Much of this has to do with the fact that the information stored here is what might be called “common knowledge,” suggesting a resonance with what is already known to the reader. That additions are made to the book throughout its reception history, through both text and images, means that we can see it as an evolving collection that provides a space for the individual patron, reader, or official translator. Whether or not additions are made to the physical book, the work’s structure, and even to a certain extent the inconsistencies in the treatment of sources, leave a series of *gaps* in which one could situate life experiences, knowledge, and beliefs.

If my hypothesis is correct, we can see the definition of “encyclopedia” in a slightly different way than tradition would have it: while “the circle of learning” is usually described as a text containing what one *ought to know* in the form of an authoritative book, it can also be understood as a technology which interacts dynamically with what the reader knows already and wishes to expand. If we view the encyclopedia in these terms, the line between the medieval respect for the authority of tradition and the interest in “common knowledge,” as the base for a shared intellectual culture, is blurred. The emphasis on collective wisdom provides yet another explanation for why lay readers from this period embraced Bartholomaeus’ authorial persona as the humble collector, and helps us make sense of the contributions made by later editors. Compilation was a crucial writerly activity. The instability of the text allows the reader to share in this pursuit by

both altering the text and image program during the creation of the copy, and through later *mental* activity.

The way that this text invites the contributions of the reader is important, not just because it helps to explain the success of this book among changing audiences, but also because it is an important theme in the illustrations found in French Bartholomaeus manuscripts. As I will discuss in Chapter Four, many miniatures found in encyclopedias produced between the fourteenth and fifteenth centuries depict readers learning about the subjects of the text or discussing its content with peers. These images clearly encourage the kind of reader engagement discussed above. As I will discuss in Chapters Five and Six, diagrammatic images can also serve as sites for engagement with and analysis of epistemic content.

(ii) Manuscript Collection and the Lay “Intellectual Brotherhood”

One way that we can understand the increased interest in book ownership in this period is to look at the collection of manuscripts as a means of achieving cultural status through interest in intellectual pursuits. Indeed, Laurel Amtower in *Engaging Words: The Culture of Reading in the Later Middle Ages* suggests that the early fourteenth century saw a new interest in “recreational” book use/ownership, where individuals saw manuscripts as sources of entertainment and pleasure rather than as professional or devotional tools.²¹⁷ This connection between book collecting and the pleasure of gaining knowledge is clearly reflected in Corbechon’s prologue to *On The Properties of Things*, which holds up

²¹⁷ Amtower, *Engaging Words*, 17.

the “*plaisance et amour a sapience*” as a princely virtue evidenced through Charles V’s desire for an encyclopedia.²¹⁸

The argument that the ownership of books was understood as a source of social power is supported, to some degree, by a few oft-cited textual sources, including especially the Latin writings of Richard de Bury. In 1344, this English Benedictine monk and eventual Bishop complained in his writing that lay readers are not worthy of books due to their lack of reading skills: “Laymen [...] who look in the same way at a book lying upside down as when it is open in its natural way, are wholly unworthy of the intercourse of books.”²¹⁹ This accusation implies an absurd level of illiteracy that includes both the inability to understand a text and a lack of the basic visual literacy required to interpret a manuscript’s *mise-en-page*. The implication, beyond that these readers lack skill, is that books were used as “props” by lay patrons and that the knowledge contained within them was unimportant.

It is true that late-medieval lay readers, “pragmatic” and “optimistic” individuals ranging in class from aristocrats to merchants, used books for a variety of non-literary purposes including that of self-fashioning and the assertion of status.²²⁰ Books were prized not only for the texts they contained but were used as part of social performances in both secular and sacred contexts, being carried around and displayed as props during the Mass even by those who were not fully literate.²²¹ Richard de Bury’s commentary on lay literacy and excesses of luxury, however, is a gross exaggeration on the part of a clergyman who very likely deemed reading and exchanges of knowledge the provenance

²¹⁸ Byrne, “*Rex Imago Dei*,” 102.

²¹⁹ McGrady, *Controlling Readers*, 4.

²²⁰ Amtower, *Engaging Words*, 27-31.

²²¹ *Ibid.*, 32.

of the clergy. Richard's suggestions that the laity were more interested in the physical book than its content is probably unfounded, but it is perhaps partially based on the kind of luxurious production seen in lay books, like the Bartholomaeus manuscripts studied here. The tie between luxuriousness and lay illiteracy leaves little room for information-rich images and contributes to a dismissal of miniature paintings as little more than markers of the patron's status.

Modern scholars have every reason to believe that lay literacy was fairly common among the group Richard de Bury is discussing, even if the *form* of this literacy varied from that seen in other segments of society.²²² Amtower argues that, in the late-medieval world, there developed a new intellectual "brotherhood" which asserted gentility on untraditional grounds. Claims of high *status* start to become related to claims of high *culture* in addition to, or instead of, wealth, position in the Church, or nobility.²²³ Aristocrats, those of the upper *bourgeoisie*, and merchants were becoming ever closer to texts, treating them as cultural capital on the basis of their learning.

While the patrons of luxuriously illustrated encyclopedias would certainly have used their manuscripts as markers of status, the visual claim that these books make is based on *knowledge ownership* rather than simply *book ownership*. As I will discuss in the following chapters, the images contained in fifteenth-century French encyclopedias help to assert the standing of the patron by demonstrating the reader's active engagement with the text. These images are not empty props but useful tools for modeling behaviours among visually and linguistically literate patrons.

²²² M.B. Parkes, *Scribes, Scripts and Readers: Studies in the Communication, Presentation and Dissemination of Medieval Texts* (London and Rio Grande: The Hambledon Press, 1991), 275.

²²³ Amtower, *Engaging Words*, 27.

(iii) Lagged Performance

As noted earlier in this chapter, much of the literature on lay reading practices in the later middle ages assesses the relationships between silent reading and aurality. However, whether the arguments suggest that private study supplanted aural performance or claim that the two modes co-existed, there is a tendency to posit the two forms of reading in stark opposition to each other. The creation of this binary gives the false impression that these two ways of using books have little in common. I argue, based on evidence from both texts and images to be studied in the following chapters, that these two modes can exist on a continuum, with silent study leading to an aural performance at a later time, or vice versa. In the case of encyclopedias and, indeed, other types of texts as well, the initial phase of reading is a stage of preparation for a later reading and the performance of the content among peers. Laurel Amtower argues that in this period, the “book becomes an interlocutor in a dialogue that takes place entirely in the mind,” but it is likely, based on the pictorial evidence discussed in Chapter Four, that this mental conversation was also mirrored in the real world and as part of various types of social exchanges.²²⁴ To some extent, therefore, it is possible to say that the late-medieval lay readers of Bartholomaeus’ text were behaving increasingly like the monastic sermon writers of an earlier phase in the encyclopedia’s reception history, at least in the loose sense that they might use the knowledge within the manuscripts for the creation of new thoughts.

Joyce Coleman, in *Public Reading and the Reading Public in Late Medieval England and France*, is a key proponent of the argument that public reading is not related to low literacy rates or book shortages. Considering theories developed in the social

²²⁴ See Amtower, *Engaging Words*, 42.

sciences, she convincingly argues that aurality constitutes an elite “social event” in the late-medieval world.²²⁵ The social qualities of the activity are what distinguishes it from private study. Limiting her research to the examination of “late medieval court-oriented secular literature in English,” but making useful generalizations about late-medieval readers from other places, Coleman reconstructs a vision of “bimodal readers,” who were interested in both listening to texts and using books visually. In describing these readers, she writes that they could transition between spaces and modes of reading. She argues that

Since many audience members were literate, they would have a sense of familiarity with books and the handling of books; and they could listen in the knowledge that at another time they might, as D. H. Green says, ‘withdraw into privacy with the text and study it with as much critical leisure as was available to the author in preparing it for his recital.’²²⁶

As this quotation suggests, most lay book users could act as listeners, speakers or silent readers as determined by the context. Given the early use of *On the Properties of Things* as a tool for writing sermons and the critical, imaginative nature of late-medieval lay readers, it is very likely that encyclopedias, even when read silently, were understood as part of a social experience that could occur at a later time. As the reader moves between private and public spaces, s/he also engages in the text through a complicated network in which each of the participants in the communication of information has the potential to be a receiver, creator and transmitter of knowledge.

In the following chapter, I continue the study of reading and intellectual culture by examining a series of miniatures that show readers using the knowledge found in

²²⁵ Coleman, *Public Reading and the Reading Public*, 28.

²²⁶ Ibid. For the original passage see, D.H. Green, “On the Primary Reception of Narrative Literature in Medieval Germany,” *Forum for Modern Language Studies* 20, no. 4 (1984): 289-308, 292.

Bartholomaeus' encyclopedia. Allegorizing their understanding, they enact the lagged performance of the text I have just discussed. The primary actors in these illustrations are aristocratic readers and scholars, who travel through imaginative and informative landscapes while discussing the key features of each book. Through their engagement with nature and each other, they visually demonstrate the pleasure in, and love of, wisdom that were the key intellectual values of this audience. In so doing, the images support the view that late-medieval lay readers were active and creative participants in intellectual invention.

Chapter Four: Allegories of Thought: Private Reading and Public Knowledge, BnF fr. 9141

Through the regular use of *Wikipedia*, contemporary readers are well acquainted with the practice of approaching encyclopedias as both receivers and creators of knowledge. The transparently collaborative nature of the world's largest encyclopedia, and its lack of expert oversight, has caused it to become the most suspicious and scorned of sources in our current knowledge economy. Robert McHenry, editor-in-chief of the *Encyclopedia Britannica* said during the coverage of the web giant's 10th-birthday celebration in 2011, "there are no guarantees that articles are accurate and therefore Wikipedia can't be trusted."²²⁷ Indeed, one of the Internet's most famous critics Andrew Keen, who has published widely on the ways that the web "undermines the authority of learned experts and the work of professionals" asked, during the same coverage, "Who gives their labour away for free, anonymously? Only schmucks would do that. Or losers."²²⁸

But as attitudes towards the creation of digital content, including academic scholarship, become more widely accepted in various sectors, we are also beginning to rethink the value of cooperative compilation methods. Interestingly, these emerging attitudes regarding the place of the reader's voice, which now extends from the ability to edit *Wikipedia* to online academic books with publically visible community glosses, can help to clarify the historical function of compendia. I suggest in this chapter that the open

²²⁷Geert Lovink and Nathaniel Tkacz, eds., *Critical Point of View: A Wikipedia Reader*, Inc. Reader #7 (Amsterdam: Institute of Network Cultures, The School for Communication and Design at Amsterdam University, 2011), 9; Duncan Greere and Olivia Solon, "Viewpoints: What the World Thinks of Wikipedia," *Wired.co.uk* (January, 2011).

²²⁸ Lovink and Tkacz, *Critical Point of View: A Wikipedia Reader*, 9; D. Parvaz, "Look It Up: Wikipedia Turns 10," *Al Jazeera* (January, 2011).
<http://www.aljazeera.com/indepth/features/2011/01/201111571716655385.html>.

nature of *On the Properties of Things* can give encyclopedias social functions with epistemological benefits. For example, Umberto Eco in the 2011 work, *This is Not the End of the Book*, frames the value of encyclopedias, which he defines loosely as collections of conventional knowledge, dialogically, writing

Discussions between people can only take place on the basis of a shared encyclopedia. I could prove to you that Napoleon never existed - but only because...[we] have learned that he did. That is what ensures that dialogue can continue. It is this intercourse that allows for dialogue, creativity and freedom.²²⁹

For Eco and, I suggest, for the late-medieval aristocratic audiences that brought these texts from monasteries and schools into their private libraries, the encyclopedia is not meant to be a site of agreement, or unquestionable authority. Although this sense of authority could certainly be felt at times, the compilation of multiple sources on every topic ensures the presence of disagreement in the genre. As discussed in Chapter One, conflict has been part of the medieval encyclopedia from its Latin origins. Vincent de Beauvais' prologue to the *Speculum Maius*, for example, warns the reader directly that the presence of contradiction in his encyclopedia means that the reader must judge and "decide which opinion to prefer."²³⁰ The inconsistencies in the compendium were, therefore, sites of opportunity for active readers. They were places to begin creative acts of intellection and the process of invention.²³¹

²²⁹Umberto Eco, Jean-Claude Carrière and Jean-Phillippe de Tonnac, *This is Not the End of the Book: A Conversation Curated by Jean-Phillippe de Tonnac*, trans. Polly McLean (London: Harvill Secker, 2011), 82.

²³⁰Vincent de Beauvais, *Speculum naturale*, in *Bibliotheca mundi Vincentii Burgundi*, (Facsimile: Graz: Akademische Druck- und Verlagsanstalt, 1964), col. 7 (prologue, 8). Translation from Ann M. Blair, *Too Much to Know: Managing Scholarly Information before the Modern Age* (New Haven: Yale University Press), 45.

²³¹ The argument for the discursive power of scholastic encyclopedism and its role in invention is made in Mary Franklin-Brown, *Reading the World: Encyclopedic Writing in the Scholastic Age* (Chicago and London: University of Chicago Press, 2012), 1-8 & 62.

The case study that follows, an analysis of BnF fr. 9141 referred to here as the Boucicaut manuscript, represents a more directed explication of the reading practices of the lay book-users that were discussed in Chapter Three. A major goal is to illustrate how encyclopedic images might help support our understanding of the ways that individuals in this period responded to books, read them, and used the knowledge they gained from them in social acts of invention. As discussed in the previous chapter, this audience was characterized by a new interest in silent reading. But encyclopedias like *On the Properties of Things* inspired, or even required, an *extended* mode of book use that involved both quiet study and the social display of mastery over the material. This process, which might include a lagged performance as discussed in Chapter Three, *creates* the encyclopedia as a circle or, in this context, a revolving cycle of knowledge. Viewing the images found in BnF fr. 9141 through the lens of reader-response theory may seem an unusual proposition, considering that the manuscript contains no images of people engaged in the act of reading—silent or otherwise.²³² However, if we understand “reading” in lay society more broadly, as a single part of the reception process which transforms what one has read into “knowledge” and newly spoken texts (lagged aural/recitation), insight can be drawn from a wide range of image types.

In this chapter I (i) introduce BnF fr. 9141 and the Boucicaut Workshop and (ii) present an overview of the book’s illustrative program, including examples of the kinds of diagrammatic images that will be the more concentrated focus of Chapter Six. Turning

²³² Images of people reading have been taken as evidence for the use of books in other contexts, but this is often inconclusive and thought to represent only part of the reading process. See, Paul Saenger, "Silent Reading: Its Impact on Late Medieval Script and Society," *Viator* 13, no. 1 (1982): 367-414; Joyce Coleman, *Public Reading and the Reading Public in Late Medieval England and France* (Cambridge: Cambridge University Press, 1996); Laurel Amtower, *Engaging Words: The Culture of Reading in Late Medieval England and France* (New York: Palgrave, 2000).

then to the ways that these images can act as models for engaged, aristocratic readers, I (iii) discuss the meaning of the “thinking-figure” images that are repeated throughout this manuscript and many others produced in the fourteenth and fifteenth centuries. In the introduction to this thesis, I argue that that the images in these manuscripts can be understood as mind-extending objects. But because the thinking figures in BnF fr. 9141 defy expectations of what we might imagine images created to facilitate thinking ought to look like, many of the pictures in this book could well be mistaken for depictions of light-hearted courtly recreation.²³³ I argue, however, that they may also be read as (iv) representations of particular kinds of cognitive processes significant to the context in question, specifically *intentio* (intentionally directed/object directed thought) and *inventio* (in this case the *social* invention of new “texts” as an outcome of the thinking process). Continuing my focus on the thinking figures, I then (v) interpret them as allegories of knowledge that highlight the reader as an active agent in the social exchange of wisdom.

(i) The Boucicaut Master and BnF fr. 9141

There are two case studies in this dissertation, and both are manuscript copies of Jean Corbechon’s 1372 translation produced in fifteenth-century France. The first book, studied here in Chapter Four, is the earliest and most famous of the two, having been produced in the first quarter of the fifteenth century. The Boucicaut manuscript is a rare example of manuscript in this tradition with an artist’s name and a body of literature

²³³ Scholarly attention had traditionally focused on pictorial themes of courtly recreation in luxury manuscripts like BnF fr. 9141 until Jonathan Alexander’s seminal article on the ideological function of images of peasants in *Les Très Riches Heures du Duke de Berry*. See, Jonathan Alexander, “*Labeur and Paresse: Ideological Representations of Medieval Peasant Labor*,” *The Art Bulletin* 72, No. 3 (1990): 436-452.

connected with it.²³⁴ The Boucicaut Master, so named after his most famous work, the *The Hours of the Maréchal de Boucicaut*, housed in the Musée Jacquemart-André, Paris, is an important figure in late-medieval manuscript illumination in Northern Europe. The artist has received significant scholarly attention, including a study by Millard Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master*, in which it is argued that the workshop of the Boucicaut Master is the only real artistic peer of the Limbourg Brothers in Northern Europe.²³⁵ Similarly, Erwin Panofsky refers to him as “the most brilliant genius of pre-Eyckian painting.”²³⁶

The Boucicaut Workshop in Paris illustrated two copies of Bartholomaeus’ encyclopedia. BnF français 9141, my main focus here, was first owned by Béraud III de Clermont-Sancerre, Dauphin d’Auvergne (1350-1426). Significantly, a portrait of the painter in conversation with a physician or anatomist appears on fol. 55 (Figure 15).²³⁷ The other, less famous, copy of this encyclopedia to be illustrated by this workshop, referred to as the Fitzwilliam manuscript (Fitzwilliam Ms. 241, c. 1415), was produced for Amadeus VIII, Count of Savoy (1383-1451), the grandson of Jean Duke of Berry (Figure 16).

The Boucicaut Workshop was responsible for the production of many luxury devotional works, including the famous *Boucicaut Hours*, and works in other genres including copies of *Les Grandes Chroniques de France*, the most famous illustrated copy of *Mandeville’s Travels*, and many copies of texts that were originally part of the

²³⁴ Especially relevant are Millard Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master* (London: Phaidon, 1968); Donal Byrne, “The Boucicaut Master and the Iconographical Tradition of the *Livre des propriétés des choses*,” *Gazette des Beaux-Arts* 92 (1978): 149-164.

²³⁵ Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master*, 4.

²³⁶ Erwin Panofsky, *Early Netherlandish Painting: Its Origins and Character* (Cambridge: University of Cambridge Press, 1953), 53.

²³⁷ Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master*, 59.

translation project of Charles V.²³⁸ There is considerable scholarship on the workshop's oeuvre, including early studies written by Paul Durrieu in the first part of the twentieth century.²³⁹ Erwin Panofsky also gave significant attention and praise to the artist in his book, *Early Netherlandish Painting: Its Origins and Character*.²⁴⁰ Millard Meiss wrote the authoritative English language text on the subject in 1968, as the third volume of a three part series, *French Painting in the Time of Jean de Berry*.²⁴¹ The *Boucicaut Hours*, rather than either of the encyclopedias discussed here, is generally identified as the *chef-d'oeuvre* of this workshop and it has therefore remained the central focus of most studies on the topic of the Boucicaut Master's work.

The discussion of the Bartholomaeus manuscripts in Meiss' study on the Boucicaut Master is useful, in spite of its brevity. Meiss describes the images in fr. 9141 as "the most beautiful illustrations of this text that have come down to us," suggesting that, of the two copies completed by the workshop, the Fitzwilliam manuscript is less aesthetically appealing.²⁴² In the more famous copy, Meiss identifies several figures that he believes to be portraits. The nobleman with a mallet in the miniature that shows a discussion of the elements is identified as Jean sans Peur (Figure 17) and the gentleman analyzing the gems and jewels in Figure 18 is said to represent Jean de Berry displaying his passion for *joyaux*. Finally, the patron, Béraud III of Clermont, is represented receiving an anatomy lesson in private chambers (Figure 15).²⁴³ These portraits are a

²³⁸ Ibid., 4-5.

²³⁹ See Paul Durrieu, *La Peinture en France au Début du Xve Siècle: La Maître des Heures du Maréchal de Boucicaut* (Bruges: Librairie de l'Art Ancien et Moderne, 1906).

²⁴⁰ Panofsky, *Early Netherlandish Painting*, 53-61.

²⁴¹ Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master*.

²⁴² Ibid., 58.

²⁴³ Ibid., 59.

significant indication that the encyclopedias were personalized but, more importantly, that individual patrons could visualize themselves working with the text in specific ways. The reader of Bartholomaeus manuscripts, who demonstrated his love for wisdom by seeking mastery over all knowledge, could engage with the text dialogically. The encyclopedia is a starting point for conversation between both reader and text, and more broadly in the social sphere.

(ii) Overview of the Illustrative Program

The illustrative program of this manuscript, with its several distinct representational strategies, wonderful use of patterned colour that lends consistency to the book, and its inclusion of complex landscapes, certainly deserves the praise it has received from scholars like Meiss or in twentieth-century scholarship. The illustrations have many features in common with those in earlier manuscript copies of the text, but they reach a different level of complexity in their depictions of amusing details, including the small animals that are the hallmarks of the Boucicaut workshop (the rabbits in Figure 19, for example, are seen in several manuscripts from this workshop but rarely in other Bartholomaeus manuscripts).²⁴⁴ The figures and landscapes are elegantly rendered and contribute to what would have been a delightful visual experience for the reader. The miniatures are, as Meiss has written, handsome, fashionable and atmospheric.²⁴⁵

This manuscript contains a number of types of images but my analysis will focus largely on the aristocratic and scholarly figures that appear with some regularity starting on folio 43. There are, however, also several images that can be classified as

²⁴⁴ Ibid., 58.

²⁴⁵ Ibid.

diagrammatic or numerically focused. The mode of representation that I will call “diagrammatic” plays a more important role in my discussion of BnF français 135/6 in Chapter Six, but I introduce them here because they complement the thinking-figure images and highlight the kind of organizational focus that makes them useful as visual displays of ordered information. These diagrammatic images, with the exception of the two quartered miniatures depicting different types of animals and birds, are all collected in the first part of the manuscript, with each one marking the beginning of a new book. Their specificity in terms of content and relationship with the text, as well as their apparent rigidity, sets the tone for the rest of the illustrative program. These early images tend to focus on spiritual concerns that are relatively common subjects in this period. In this chapter I will outline several types, including images that compress multiple ideas, such as the Trinity, miniatures that use a grid to show multiplicity, and divided images that separate levels and display hierarchies.

The Trinity

The first diagrammatic image in this manuscript illustrates the nature of the Trinity (Figure 20). This is a subject for which the artist has a vast body of visual sources and tropes to draw from, including conventional tableaux involving the figure of God the Father as an older man, Christ or a Crucifix, and a floating bird representing the Holy Spirit. The Boucicaut Master, however, takes an unusual approach to this miniature. Here, we see the Father and Son joined as a single, two headed entity with the Holy Spirit appearing as a flat, bird-shaped decoration in the chest area of his pink garment. The being shares a single halo, two bare feet, two hands and a single book. The composition

is almost brutally symmetrical when compared to other images in the manuscript and the space is dominated by the huge throne shared by the Godhead.

The Trinity, represented in this way, is an appropriate subject with which to begin the process that is essential to the text of *On the Properties of Things*—that of pulling apart and organizing the distinct features of singular entities (here, the names but also the triune nature of God). As such this image can be understood, in part, as an illustration of the organizational strategies used in the book. It visualizes the division of essential and incidental factors. The essential element, the “whole” which defines the overall nature of the Divine in this image, can be understood as “God.” The various manifestations or names of God (God the Father, Christ, and the Holy Spirit), are the *properties* of the Divine. Though divided, they are not separate entities, but meaningful *attributes* of the whole. Clarifying this hierarchical relationship between essential elements and properties as they relate to the Creator is important to the overall project of the encyclopedia. Bartholomaeus uses the nature of God and the hierarchies of the Creation to organize the structure of the encyclopedia from the most sacred, *De deo*, through the most worldly and sensual, *De accidentibus*.²⁴⁶ Because the text of *On the Properties of Things* continually moves from general to increasingly specific and from holy to increasingly worldly while maintaining a sense of cohesion, the nested structure made visible in this image of the hierarchical distinctions within the Trinity mirrors the overall program of the encyclopedia.²⁴⁷

²⁴⁶ For a more complete outline of the hierarchical organization of *On the Properties of Things* and its sources, see Appendix B.

²⁴⁷ The organizational strategy of moving from general to specific and sacred to worldly is common in other encyclopedias, including Brunetto Latini’s *Li Livres dou Tresor*. See, Paul Barrette and Spurgeon Baldwin, trans., *Brunetto Latini: The Book of the Treasure/Li Livres dou Tresor* (New York, London: Garland Publishing, 1993), ix-x. On the mnemonic value of the nested encyclopedic structure, see,

The Grid

Another diagrammatic strategy is found in the images that introduce the books on the properties of animals (first birds, then terrestrial mammals, Figures 6 & 21). The illustrations are divided into four compartments of equal size, surrounded by a gold border. Within are images of creatures, often with their young, situated in either simplified landscapes or against patterned backgrounds. The animals, including the unicorn, look natural and are not depicted in ways that highlight their allegorical significance. A survey of other French copies of *On the Properties of Things* suggests that this is a relatively common approach to the challenge that arises from the desire to represent, in one small image, a sample of the significant singulars that appear in the text. The use of a quadripartite image that shows a small range of examples is a compromise that sits between the impossibility of representing every “thing” in Bartholomaeus’ text, complete with all of its associated properties, and the impossibility of choosing one item to represent all the rest.

This kind of illustration, with its divisions and combination of multiple items in a grid, achieves the list-like quality of Bartholomaeus’ prose. It hints at *endlessness* because the emphasis on geometrical arrangement and increasingly divided and nested boxes gives the sense that this series of squares could be infinitely divided or expanded.²⁴⁸ The visual characteristics of the images indicate that the species illustrated

Kimberly Rivers, "Memory, Division, and the Organization of Knowledge in the Middle Ages," in *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress*, ed. Peter Binkley (Leiden, New York, Köln: Brill, 1997), 155.

²⁴⁸ On the nature of “visual lists” and the “rhetoric of enumeration” in the Middle Ages and beyond, see Umberto Eco, *The Infinity of Lists*, trans. Alastair McEwen (New York: Rizzoli, 2009), 36-47 & 133-149. Bartholomaeus Anglicus and the medieval encyclopedia are discussed 152-156.

are but a *sample* of what is contained within the text and the created world. Why these particular animals were chosen is unclear. While it is true that each of the creatures is tied to a biblical story, this is the case with all of the animals in the book. There is no evidence that the animals displayed in these illustrations are the most important in the system of the text by any measure; the simple reference to “a number” of animals indicates the existence of “many.”²⁴⁹ As a kind of mental and visual exegesis, the reader is responsible for implying the rest.²⁵⁰

Levels and Hierarchies

A common feature of most illustrated Bartholomaeus manuscripts is the inclusion of images illustrating clearly ordered hierarchies. In BnF fr. 9141 there is an image of the terrestrial hierarchy, used to illustrate the first order of angels in BnF fr. 9141, Figure 22), one depicting the celestial hierarchy, which illustrates the third hierarchy of angels, (Figure 23) and a miniature which combines both, representing the second hierarchy in the manuscript (Figure 24).²⁵¹ These miniatures divide figures, whose status can be distinguished by their modes of dress and postures, into a series of arched registers wherein the most important figures are at the top of the frame. In the case of this manuscript, the individuals in each register look up towards those above them, frequently

²⁴⁹ Ibid.

²⁵⁰ Rivers, "Memory, Division and the Organization of Knowledge in the Middle Ages," 156. On mental and visual exegesis, see Anna C. Esmeijer, *Divina Quaternitas: A Preliminary Study in the Method and Application of Visual Exegesis* (Amsterdam: Van Gorcum Assen, 1978).

²⁵¹ The apparent conflict between image and text here has not yet been addressed in the scholarly literature. The illustrations are sometimes described as the three orders of angels, an interpretation that reflects the text but fails to explain the inclusion of worldly content, as in Heinz Meyer, *Die Enzyklopädie des Bartholomäus Anglicus: Untersuchungen zur Überlieferungs und Rezeptionsgeschichte von "De proprietatibus rerum"* (Münich: W. Fink, 2000), 351. Alternatively, they are described as representations of celestial and terrestrial hierarchies, as they are in the BnF library catalogue. This is just one example of conflict between text and image in this manuscript, a topic that deserves further analysis.

with clasped hands in a gesture of prayer. The repetition of the patterns in the three images marks the analogies between the realms and clarifies Bartholomaeus' vision of the natural relationships among social groups.

This series of images is an effective visualization of many of the themes that dominate the text, including the importance of organizing knowledge and understanding the natural relationships between things. They are visual displays of the categorizations that structure the book and make subtle distinctions between types. The ordered society is a key theme in discussing the properties of human beings and is part of what allows this book to transition so easily from a low-level textbook to a mirror for princes.²⁵² These images also set up the larger hierarchy that is carried through the nineteen books of the encyclopedia, which move from the nature of God and various celestial creations, to the most earthly elements of humans and the natural world.²⁵³

(iii) **Attentive, Thinking Figures**

The aristocratic and scholarly individuals that I have called “thinking figures,” appear in many illustrated copies of *On the Properties of Things*, extending into early printed versions of the text. In my experience of looking at extant French manuscripts, the appearance of this type of figure is the most distinctive characteristic of the illustrative programs of French copies of this text. This feature likely developed with the genre, stemming from earlier instruction-type images, and this theme probably figured in

²⁵² M.C. Seymour and Colleagues, *Bartholomaeus Anglicus and His Encyclopedia* (Aldershot, Hampshire and Brookfield, Vermont: Variorum, 1992), 11.

²⁵³ Ibid.

Charles V's presentation copy. In the case of BnF fr. 9141, there are ten examples of thinking-figure images, making it the most dominant motif of the illustrative program.

These images are in a different category than those diagrammatic images discussed above. They focus on the creation of simple narrative scenes based on interactions between agents and important elements in their environment. In each miniature, the skillfully rendered figures are always shown in groups of two or three. They stand to one side of the scene, separating themselves from the environmental feature or person they are discussing. Despite their apparent focus on external entities, these figures are the center of interest for the reader-viewer.

The poses of these thinking figures are conventional, but they are also natural and surprisingly casual. In most scenes, at least one of the figures is engaging in a pointing gesture or hand flourish that tells us that they are “singling something out for the attention of another,” either a companion figure or, presumably, the reader.²⁵⁴ The shared, pointed gaze found in some scenes has a similar meaning, even if hands are not involved in the gesture.²⁵⁵ In the image focused on the element of water (Figure 25), the aristocratic figure on the left lays a hand on the shoulder of his scholarly companion in a gesture of interested congeniality. His companion, who points in the direction of the water and fish that they are discussing, lifts his robe to reveal his feet, suggesting that the pair are walking through the space. Their conversation reflects this sense of movement in the environment and, in turn, their movement within and through the text. There are small boats in the upper left corner of the miniature and the viewer can imagine that the

²⁵⁴ J. A. Burrow, *Gestures and Looks in Medieval Narrative* (Cambridge: Cambridge University Press, 2002), 102.

²⁵⁵ *Ibid.*

discussion will come to that specific subject as the book progresses. Reading, here, is portrayed as a social walk through this imagined landscape.

The most striking feature of these images in the narrative sense, is that great care has been taken to construct meaningful and believable relationships between the groups of individuals and the spaces in which they are depicted. None of the figures looks out towards the viewer, and instead they all keep their gazes fixed on what has captured their attention. This is most usually either something in the landscape or another individual with whom the figure is in conversation. In the image illustrating the book on the earth and heavens (Figure 26), the focus is on a scientific instrument and the pictured celestial bodies that mirror it. The group demonstrates that they are actively participating in the investigation of the natural world through their use of a spherical astrolabe, a device that was beginning to become a desirable object to members of the laity in Parisian stores in the late fourteenth and early fifteenth centuries. The small rabbits and swans in the background of this miniature do not distract the men in this scene, who presumably wait until the conversations inspired by Book XII, *De avibus* and Book XVIII, *De animalibus* have begun. The attitude expressed is one of active engagement with some aspect of the text being illustrated.

While the Boucicault Master is known for his approach to linear perspective,²⁵⁶ and the figures appear quite “at home” in their settings, the landscapes are also somewhat other-worldly and fanciful. In many scenes, the artist has not represented a convincing view of the natural world. In folio 43, the elements (Figure 17), for example, the scene has a disrupted sense of scale, leaving the figures to loom over the minuscule trees and

²⁵⁶ Meiss, *French Painting in the Time of Jean de Berry: The Boucicault Master*, 17-18.

shrubs in the foreground. A series of distant concentric discs, the objects of their thoughts and attention, appear in the upper right corner, but their relationship to the physical space inhabited by the gentlemen is unclear. Realism is regularly loosened for demonstrative purposes. The sky is patterned with stars even while the sun is present, a feature seen in many of the miniatures, and the viewer is afforded an impossibly clear view of the large fish swimming underwater. The figures are often highly personalized portraits, but the environments in each of the scenes are exotic nowhere places, in a state of simultaneous day and night and a variety of seasons. This is because the image program gives greatest importance to the reader and his encyclopedic mental activities on the subject of nature, rather than the accurate representation of the natural world. Remembering Corbechon's message in the prologue, the images mark the patron's wisdom by demonstrating his ability to think about, for example, *all four* of the seasons, even if they do not manifest simultaneously in nature.

It is likely because of this pictorial emphasis on wide-ranging encyclopedic thought rather than distinct singulars in nature that the expected architectural portraits are also absent from the landscapes in this manuscript. According to Meiss, while the illustration of *De regionibus* (Figure 27) shows what is clearly French architecture in the context of a discussion of all the regions of the world, none of these buildings is clearly identifiable.²⁵⁷ Overall, this tells us that in each miniature, natural features or concepts appear as abstract representations that *exist in the imaginations of those discussing them rather than in the real world*. These types of miniatures can, therefore, be clearly

²⁵⁷ Ibid., 59.

differentiated from scenes of courtly leisure happening on a particular estate (e.g. the calendar pages showing aristocrats in the *Très Riches Heures du Duc de Berry*).²⁵⁸

Thinking Figures in the Larger Tradition

While the Boucicaut Master's work in BnF fr. 9141 is praised as the most beautiful example of an illustrated Bartholomaeus manuscript of this type, this codex has many features in common with other illustrated copies of the text. Similar figures appear routinely in French copies of this work—sometimes on their own, experiencing the world in solitude, but frequently in groups. One major variation in iconography is related to how the objects of the figures' attention are positioned in relation to the physical world. Where the figures in the Boucicaut manuscript are *immersed* in their thoughts and relationships, other manuscripts show more detached figures who contemplate schematic *mental* representations of the world. Conveying that the thinkers are engaged in the creation of mental pictures is typically achieved through the use of something like a “thought bubble” container for a hovering image. This comes in the form of a circular frame that is separate from the physical space occupied by the thinker. Within it is an image or scene that represents part of the text, often material found in the incipit. These images give us the sense that we have access to their shared thoughts. Manuscripts that make use of this iconography include the Reims copy, owned by Jean de Berry (Figure

²⁵⁸ There is one possible exception to the lack of identifiable places in BnF fr. 9141. In the anatomy lesson miniature (*De hominis corpore*, fol. 55 Figure 15), the patron Béraud III, is depicted in a room that is decorated with his coat of arms. Even in this case, however, the simplicity of the space and the focus of the figures on a framed illustration of the human body means that emphasis remains on the topic of the book rather than the environment. I argue that the addition of the coat of arms serves to confirm the identity of the patron rather than to accurately describe a specific room. The existence of such a room is, in fact, improbable. There is no evidence that such anatomical illustrations were displayed in aristocratic homes in the fifteenth century. This miniature is discussed further below.

28), BnF fr 22533 (Figure 29), BnF fr 216 (Figure 30), and BnF fr 16993 (Figure 31), among others.

Perhaps the clearest example of the transition between the “thought bubble” type of image and the more naturalistic integration of features can be found in the depiction of figures contemplating the planet earth in BnF fr. 134 (Figure 32). Here, a group of four individuals stands on a grassy ground populated with small plants. This landscape is situated against a flat black and gold background rather than a sky or a continuation of the scene. A large circle, which just overlaps with one of the figures’ hands, hovers in front, occupying their attention. What the thinkers are apparently discussing is a more remote, “zoomed out” vision of their environment—the earth and its atmosphere as if seen from the heavens. The strangeness of the depiction gives us no sense that the figures are discussing something that is actually present in their surroundings. Neither are we given the impression that the figures are sharing a supernatural “vision.” This is instead a *mental* vision that is conjured by their earlier reading of the encyclopedia.

In general, this type of “thought bubble” iconography is mixed with the first, more naturalized, type seen in BnF fr. 9141. Unfortunately, there is no easily understood pattern that governs which representational strategy is used in which instance. In some cases, such as the representation of the elements seen in BnF fr. 16993 (Figure 31), the “thought bubble” appears to be used when the subject of the figure’s thoughts cannot be easily or obviously integrated into the natural surroundings. As a consequence, the images within the separate frames are sometimes abstract enough to be unidentifiable, as if to suggest that the thoughts of the reader are simply complicated or immaterial. In other cases, they stand for something that is plainly difficult to represent. The bubble could act,

for example, as a container for “air” as a form of matter. I argue that these complex enclosed images are linked to the more natural type seen in fr. 9141, which simply integrate these mental pictures into the landscape. They also reference the dedication scenes, discussed in Chapter Two, which show God creating various aspects of the universe and Charles V bringing the encyclopedia into being in a new form.²⁵⁹ This visual connection with images showing acts of creation situates the cognitive activities of these figures within the realm of creative invention.

The Fitzwilliam Manuscript (Fitzwilliam Mus., ms. 251)

Despite the difference in aesthetic “quality” assigned to the Fitzwilliam manuscript by Meiss, the two codices produced in the Boucicaut Workshop are similar in terms of their repeated use of the thinking figures motif. The figures in the Fitzwilliam copy are, in most cases, depicted against a patterned background, which sometimes includes a few simplified landscape elements or some furnishings that suggest an interior space. As Meiss notes, some of the scenes include more “serious” or professional content, such as depictions of medical jars in the scene of a physician speaking about the elements (Figure 32) and the scene involving a physician and a variety of patients demonstrating particular ailments (Figure 33).²⁶⁰ Byrne notes, however, that the inclusion of professional content is common in illustrated copies of *On the Properties of Things*, suggesting that fr. 9141 is

²⁵⁹ Donal Byrne, “*Rex Imago Dei*: Charles V of France and the *Livre des propriétés des choses*,” *Journal of Medieval History* 7, no. 1 (1981): 97-113

²⁶⁰ Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master*, 58-59.

the exception.²⁶¹ My own analysis of surviving French copies suggests that Byrne is correct.

A salient difference between the two manuscripts produced by the Boucicaut Workshop that is not mentioned in previous analyses by Meiss or Byrne is the way that the figures are grouped. Where in fr. 9141 individuals are depicted in unified groups of two or three in *conversation*, the Fitzwilliam groups are scenes of *instruction*. The Fitzwilliam scenes have the dynamics of a lecture, in which one person in the robes of a scholar, physician or cleric, addresses a larger group that stands across from him. While we cannot be sure which of the individuals, if any, is guiding or dominating the discussion in the BnF fr. 9141 manuscript, as all of the thinkers seem engaged in the observation of the natural world, there is a clear sense of intellectual hierarchy in the Fitzwilliam manuscript. Knowledge resides within the separated, speaking figure who transmits information like an authoritative text. The attention of the remaining figures is not directed at a shared mental representation, or particular element of the landscape, but at the speaker.

The distinction between scenes of conversation and scenes of hierarchical instruction is important to note because, while the illustrations in fr. 9141 are often given titles like “*Scholar discoursing on water and fish*”²⁶² or “*leçon d’anatomies dans la chambre d’étude*,”²⁶³ there is no evidence, either textual or iconographic, to suggest that the attentively gesturing aristocrats, who interact with the scholar figures with such casual informality, are not part of a *complicated exchange of knowledge*. This dynamic

²⁶¹ Byrne, “*Rex imago Dei*,” 155.

²⁶² Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master*, Figure 451.

²⁶³ Roland Schaer, ed., *Tous les Savoirs du Monde: Encyclopédies et Bibliothèques, De Sumer au Xxie Siècle* (Paris: Bibliothèque nationale de France/Flammarion, 1996), 95.

interaction with the text is, as noted in the previous chapter, one of the key characteristics of the elite lay reader. What this can tell us about what Meiss calls the “less fashionable” audience for the Fitwilliam manuscript and others within this structure is unclear.²⁶⁴

Certainly, we can speculate that the more hierarchical images presented a different, more authority-centered, vision of the way that knowledge is transmitted and received.²⁶⁵

(iv) *Intentio & Inventio: Thinking As Process*

In order to understand how these illustrations might act as complicated models for thinking rather than simple representations of leisure activities, it is important to consider reading, thinking, synthesis, and invention through social exchange between communities of readers ranged individually and collectively as parts of the same process of *cognition*. This understanding of cognition is consistent with the extended model of reading and lagged performance theory that I introduced in Chapter Three. In this context, thinking is a process that has an end goal of understanding, but also *composition* or *invention*. This view is supported by the traditional use of *On the Properties of Things* as a tool for sermon writing, but it is also reflected in medieval sources on the topics of thought and memory.²⁶⁶

As Mary Carruthers notes, we often associate medieval memory with the ability to learn long passages of specific texts by rote for spiritual or rhetorical purposes. But this

²⁶⁴ Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master*, 58.

²⁶⁵ There is evidence that this was a fairly common feature in manuscripts produced before the Boucicaut copy. See Byrne, “The Boucicaut Master and the Iconographical Tradition of the *Livre des propriétés des choses*,” 155.

²⁶⁶ See, Mary Carruthers, *The Book of Memory: A Study of Memory in Medieval Culture* (Cambridge: Cambridge University Press, 2008); Mary Carruthers, *The Craft of Thought: Meditation, Rhetoric, and the Making of Images, 400-1200*, Cambridge Studies in Medieval Literature (Cambridge: Cambridge University Press, 1998); Martin Tweedale, “Representation in Scholastic Epistemology,” in *Representation and Objects of Thought in Medieval Philosophy*, ed. Henrick Lagerlund (Aldershot: Ashgate, 2007).

focus on rote learning is an over-simplified understanding of the purpose of memory in this period.²⁶⁷ Discussing monastic rhetoric, which would have influenced Bartholomaeus when writing his text, she discusses memory as “an art of “thinking about” and for “meditating upon” and for “gathering” -- a favoured monastic metaphor for the activity of *mneme theou* [the memory of God], deriving from the pun in the Latin verb *legere*, “to read” and also “to gather by picking.””²⁶⁸ All of these themes and activities are closely related to the purpose and structure of medieval encyclopedic writing and, in turn, the activities displayed within the images I discuss here. It is useful to state, once again, that these metaphors of gathering are the exact ways that Bartholomaeus describes his own role in the cycling of information.

What we see in these pictures are individuals making mental pictures, building an “architecture of memory,” like that discussed by Hugh of St. Victor in the *Didascalicon* and *De archa Noe*, and making use of their ability to work creatively within it.²⁶⁹ In this way they are behaving much like early monastic users of the book would have, but in a form that allows them to keep their elite, aristocratic identity. The images in fr. 9141 show aristocratic men, who are mirrors or even direct portraits of the reader, as capable of engaging in information exchanges with their peers and scholars. In turn, these readers are also mirrors of the inventive *author* based on their mastery over encyclopedic knowledge.²⁷⁰

These images do not portray the initial act of reading. There are no images in fr. 9141 that include books, scrolls, or documents of any kind, beyond that held by God in

²⁶⁷ Carruthers, *The Craft of Thought*, 4.

²⁶⁸ *Ibid.*, 3.

²⁶⁹ *Ibid.*, 4.

²⁷⁰ Elaine Scarry, *Dreaming by the Book*. Princeton: Princeton University Press, 2001.

Figure 20. Similarly, no images appear to depict Bartholomaeus, the translator Jean Corbechon, or Charles V initiating the book's translation into French culture in this particular copy. This manuscript is more interested in representing the *end product* of the reading process, which can be understood as part of a spectrum of reading and thinking activities.

***Intentio* and Selective Attention**

Historical and art historical scholarship on the topic of the medieval mind and its relationship with images has long focused on rote learning to the neglect of theories of mind that view the mental activities of *perceiving*, cultivating *an appropriate emotional and mental state*, and *remembering* as equally significant parts of cognition. Much of what is expressed in the images of aristocrats and scholars in conversation is related to the middle element, the concept of *intentio*, or what a modern philosopher might term “intentionality.”

There are many ways to look at the problem of *intentio* but in its simplest form this concept, which finds its origins in Aristotle's *De interpretatione*, and its steady rise in the writings related to thirteenth and fourteenth-century scholastic thought, refers to the abilities of individuals to direct thought at something outside of themselves.²⁷¹

Related to the concept of selective attention, it is both an emotional state and, occasionally, an observable action that comes through perceptual and mental focus on specific things. A theory of intentionality, located within medieval traditions of thought, is useful because it also highlights emotional and intellectual responses to objects,

²⁷¹ Tweedale, "Representation in Scholastic Epistemology," 63. See also, Mary Franklin-Brown, *Reading the World*.

including art, and the transformation of images encountered through perception into working mental images.²⁷² It is particularly useful when analyzing images that can be interpreted as mental representations transformed into paint, which is what I argue to be the case in images such as the depiction of the elements in fr. 9141 (Figure 17).

Mary Carruthers describes intentionality in terms of its role in the memory practices of early-medieval monks. Focusing on the aspect that is related most closely to the preparation for accepting knowledge, she explains,

The monks thought of *intentio* as concentration, “intensity” of memory, intellect, but also emotional attitude, what we now might call a “creative tension,” willingly adopted, that enabled productive memory work to be carried on (or that thwarted it, if one’s *intentio* were bad or one’s will ineffectual). Reading of the sacred text, both communal and in “silence,” needed to be undertaken with a particular *intentio*, that of “charity.”²⁷³

In essence, this particular practice has to do with the willingness to “submit” with acceptance to a text or idea.²⁷⁴ The action has an important emotional element, as it is associated with particular and subjective conscious experiences. Augustine, for example, describes *intentio* as an essential part of cognition, which also includes perception and the use of memory, the two more studied elements of this “trinity.” *Intentio* was essential when preparing to study the scriptures, and equal to the other two principles. This mental attitude is important because of the belief that, in order to think, humans require a “will” that directs the mind’s focus.²⁷⁵

There is, however a more generalized meaning that is not bound to a normative statement about appropriate *qualia*. Martin Tweedale, in “Representation in Scholastic

²⁷² See, David Best, “Intentionality and Art,” *Philosophy* 56, no. 217 (1981): 349-363.

²⁷³ Carruthers, *The Craft of Thought*, 15.

²⁷⁴ Amtower, *Engaging Words*, 41.

²⁷⁵ Augustine, Book IX, The Trinity. *Stanford Encyclopedia of Philosophy*, “Intentionality in Ancient Philosophy”, Stanford University, 2007.

Epistemology,” summarizes the problem as an attempt to understand “how it is possible for any being to have acts like thinking, imagining, perceiving and states like belief and desire which are about something other than themselves and frequently about something external to the basic question altogether.”²⁷⁶ According to Tweedale, the answer to the problem of intentionality was driven primarily through the issue of *representation*, specifically, how things appear in the minds of people in the process of cognition. This interpretation equates *intentio* with the modern, commonsense notion of “intention,” focusing on both higher order thinking and object-directedness. It has at its heart one of the fundamental concerns of the encyclopedia: namely, the decision to dedicate perceptual and mental resources to one thing rather than another. This puzzle, which can be depicted through the representation of acts of focused and selective attention, is essential to understanding the importance of mental representation in thought.

In turn, the emotional “will” to look and focus one’s perceptual skills is the basis of mental image-making. Scenes such as images of figures looking towards and discussing a hovering mental representation of the elements can therefore be read as images concerning acts of thought or dialectical argumentation. In my framework of understanding, they function allegorically, as images of people making mental images based on possible sensory experience, for the purposes of thinking and composing. Images of readers in acts of thought and discussion are showing an idealized representation of the life of the text as it exists through individuals.

²⁷⁶ Tweedale, “Representation in Scholastic Epistemology,” 63.

***Inventio*: Thinkers as Creators**

Painters in the period when this text was being translated and copied for lay use were faced with illustrating books without having an obvious iconographic tradition from which to draw directly. The difficulty of this lack of established pictorial convention is said to be particularly significant in the case of so-called secular texts, which begin to be illustrated with greater frequency than ever before.²⁷⁷ The result is that, in many cases, illustrators borrowed themes and motifs from sacred and devotional works with a longer illustrative history.

In the case of French Bartholomaeus manuscripts, I argue that the thinking figure images are a variation of the early dedication scenes discussed at the end of Chapter Two. Specifically, I suggest that they are related to the images that show God creating the universe by conjuring an image in a circular frame (Figure 12 & 35). This connection is particularly evident in the “thought bubble” type images described earlier in this chapter. Taken together with the frontispieces, we can see strong visual analogies being made between *thinking* about the universe and *creating* the universe, whether the chief agent is Charles V or the reader. The advantage of drawing a pictorial connection to the Creation images, in the case of miniatures related to thinking and understanding, is that it highlights the reader’s role as an inventive, building agent. Even in the cases where the relationship between the thinkers and their thoughts has been naturalized, as in fr. 9141, the creative use of scale and the collapse/integration of various “properties of things” makes it clear that we are viewing something between individual thoughts about the text

²⁷⁷ Millard Meiss, *French Painting in the Time of Jean de Berry: The Late Fourteenth Century Patronage of the Duke*, vol. 1 (London: Phaidon Publishers Inc., 1967), 13-14.

and perceptions of the natural environment. In other words, elements of the environment are mental pictures or are in the process of becoming such images. The lack of a clear distinction between perceptual experience (e.g. seeing) and the creation of memories (e.g. mental images) resonates with medieval theories of learning. In moments like those depicted within these miniatures, viewing an object in the world, committing its form to memory, and using that mental image inventively would not necessarily have been understood as distinct actions. As Carruthers notes,

the artifice of memory was also, necessarily, an art of making various sorts of “pictures”... pictures in the mind, to be sure, but with close, symbiotic relationships to actual images and actual words that someone had seen or read or heard--or smelled or tasted or touched...²⁷⁸

The experience of the world through sensation, reading, and imagining were important parts of the cognitive process, as it relates to rhetoric, memory and social activities.

The end purpose of the acts of remembering, or of conjuring the types of mental pictures discussed here, is *inventio*.²⁷⁹ The concept, which plays an important role in medieval works on memory and rhetoric, is the root of two linked modern words that are significant when viewed in relation to encyclopedic texts: *inventory* and *invention*.²⁸⁰ The first of these, inventory, is central to Bartholomaeus’ goals, described as an “inventory of the Lord’s Creation.”²⁸¹ This inventorying is an essential part of human learning, which

²⁷⁸ Carruthers, *The Craft of Thought*, 10.

²⁷⁹ *Ibid.*, 3.

²⁸⁰ *Ibid.*, 11.

²⁸¹ Walter Cahn, “Medieval Landscape and the Encyclopedic Tradition.” *Yale French Studies*, Special Issue: Contexts: Style and Values in Medieval Art and Literature (1991): 11-24, 14.

relies on the constant reorganization of knowledge (or “making thoughts” as a process).²⁸² As Carruthers explains, in the context of medieval thought, we should

conceive of memory not only as “rite,” the ability to reproduce something (whether a text, a formula, a list of items, an incident) but as the matrix of a reminiscing cognition, shuffling and collating “things” stored in a random-access memory scheme, or set of schemes -- a memory *architecture* and a library built up during one’s lifetime *with the express intention that it be used inventively*.²⁸³

The second word that has developed from the concept of *inventio*, invention, is the act of combining what is stored in the carefully built memory in order to create new knowledge, search for new arguments, or participate in discussion. As noted in the passage above, this has an important function with regard to navigation in the social world, as it allows interaction with other people. As Carruthers writes, invention was conceived as “an art that made it possible for a person to act competently within the “arena” of debate...”²⁸⁴

If we understand the images as depictions of debates or conversations, an interpretation which is supported by their gestures, positions, and shared mental pictures, the images of thinking figures in fr. 9141 can be viewed as depictions of *model readers* who have properly mastered the content collected within the encyclopedia. The evidence of their comprehension is that they are able to discuss the properties of the natural world with others. In this way, the images send a powerful message that the manuscript is a storage tool that is useful for the process of *inventio* in the social sphere. In this way, the reader is like the author, who went through a similar process of gathering information, organizing it, and finally mastering it in preparation for its use.

²⁸² Carruthers, *The Craft of Thought*, 5.

²⁸³ *Ibid.*, 4 (my italics).

²⁸⁴ *Ibid.*, 8.

(v) Allegories of Thinking

A convenient way of summarizing the illuminations found in fr. 9141 is to say that they are “allegories” of complex, multi-directional thinking, embedded in processes of compilation, division, compression, and intentionality for mnemonic purposes. We can understand each of the figures as symbols of the readers’ ideal cognitive process. While the text talks about the “properties of things” as they exist in the real world, the images present a view of the universe that can, at times, only be witnessed through mental acts, including the creative use of memory and the imagination. It would be tempting to assume that the naturalized images in BnF fr. 9141 focus on courtly recreation if it were not for the connection to earlier images of instruction and models that visualize the thinking process more clearly.

In their book *The Culture of Diagram*, John Bender and Michael Marrinan discuss a set of images from a much later type of encyclopedic text that share some important features with the fr. 9141 miniatures. They are found in the pages of an eighteenth-century English periodical called the *Universal Magazine of Knowledge and Pleasure*, a title which seems to echo Corbechon’s prologue to *On the Properties of Things* in its appeal to the Aristotelian wise-man and his pleasure in the pursuit of all knowledge. These pictures feature diagrams and schematic drawings of equipment in environments that are inhabited by parallel figures to those in BnF fr. 9141. Here, we find smartly dressed gentlemen, who scrutinize and sometimes interact with various objects of analysis.²⁸⁵

²⁸⁵ John Bender and Michael Marrinan, *The Culture of Diagram* (Stanford, California: Stanford University Press, 2010), 64.

A comparable example from Bender and Marrinan's study is the engraving labeled "The Hydrostatic Balance to find the Specific Gravities of Fluid and Solid Bodies" (Figure 36), which shows a small man observing the operations of the oversized device, which has been labeled to highlight important parts of the machine and give a sense of its size. The device and the gentleman exist in a simplified space indicated only through a line marking the ground and the shadows thrown by the objects in the room. The gentleman does not get particularly close to the equipment or interact with it directly, but stands confident and apparently engaged in thought. Bender and Marrinan note that such figures do not fit naturally within the environment in terms of scale or the believability of the space. They therefore do not fill what one might assume to be their commonsense function in a text devoted, in large part, to showing the dimensions and workings of a scientific device or process. The main purpose of a character like that just described, according to Bender and Marrinan, is to be "allegoric and emblematic."²⁸⁶

Similar to those seen in the Bartholomaeus manuscripts, this type of character

personifies comprehension, someone who understands how the instrument works. His appearance and dress are emblematic of the gentlemen readers of the *Universal Magazine of Knowledge and Pleasure*....Occasionally, these little gentlemen participate in the action...but in most instances they simply allegorize the power to see, correlate, and understand.²⁸⁷

Though it is not mentioned in Bender and Marrinan's study, this type of figure is also seen in images of early modern Cabinets of Curiosities, including the first representation of such a collection in a woodcut from the apothecary Imperato's

²⁸⁶ Ibid.

²⁸⁷ Ibid.

Dell'istoria naturale from 1599 (Figure 37).²⁸⁸ In this case, as in that of fr. 9141, a portrait of the owner of the collection is likely included, while more generic characters are present to act as mirrors for the readers of Imperato's book on natural history. Here, the well-dressed figures point to specific specimens with their hands, and even in one case a pointing stick, fixing their attention upon the contents of the room. They appear to be both confident in the space and comfortable in their relationships with each other. While it has been argued that the figure gesturing with the stick is likely to be Imperato, there is no figure in the room that has a clearly authoritative position over the others.²⁸⁹ Their open mouths give us the impression that all of the gentlemen are in conversation and that what we are witnessing is the social creation of meaning based upon the active circulation of objects and knowledge. The presence of this woodcut in *Dell'istoria naturale* suggests that reader response could include communities of individuals negotiating the significance of texts, images and objects.

The Cabinets, and the images associated with them, have been interpreted in relation to the desire to collect together, and indeed to control, a "theatre of the world" where one could bring together "all knowledge into a single space" where it could be shared.²⁹⁰ The figures in fr. 9141 have a similar meaning to both later types of images discussed here. They are "allegories of understanding" and representations of individuals who actively reflect upon the knowledge they have acquired through reading, discussion, or other forms of education.

²⁸⁸ Patrick Mauriès, *Cabinets of Curiosities* (London: Thames & Hudson, 2002), 10.

²⁸⁹ For the identification of the figure as Imperato, see *Ibid.*

²⁹⁰ *Ibid.*, 9.

The Social Life of Knowledge: The Reader as Agent

When responding to the thinking figures in fr. 9141 in this light, it is clear that the viewer of the miniature is meant to understand the reader as a competent and active agent who will use the book in the social sphere. Though this period and this audience are characterized by a new interest in various forms of reading, images like these remind us that the purpose of the acquisition of knowledge, according to Bartholomaeus' late-medieval lay audience, was closely related to its creative use in a social context.²⁹¹ Though the fifteenth-century readers of this text were not likely using their knowledge for the purposes of formal composition (e.g. sermon writing), as earlier audiences would have, the audience for fr. 9141 could see itself as responsible for the rearticulation of information in some form.²⁹²

The representation of active thinking figures is a particularly appropriate form of illustration for a work that has, among its chief properties, its textual "openness," discussed in the first half of this dissertation. Bartholomaeus' metaphors of gathering, the nested structure and organization of the text, the translation of the work into French, the addition of an illustrative program, and the later obscuring of the author, lead to a text that leaves room for the additions and interpretations of the wise reader. As noted in the introduction to this chapter, this text, and other examples in the medieval encyclopedic genre, present "disagreeing" sources and rely explicitly on the participation of a reader who is capable of evaluating the material presented. The content of the book represents

²⁹¹ Eco, Carrière, and de Tonnac, *This is Not the End of the Book*, 82.

²⁹² For a discussion of types of medieval reading, see Catherine Harding, "Speaking in Pictures: Reading, Memory and Interpretation in Francesco da Barberino's Advice to Women in his *Reggimento e costumi di donna*." *RACAR: revue d'art canadienne/Canadian Art Review* 36, No. 1 (2011): 29-40.

the “shared encyclopedia,” or knowledge standard, that allows conversations, including disagreements, between individuals to take place.

In comparison to other illustrated Bartholomaeus manuscripts, including the Fitzwilliam copy, BnF fr. 9141 centralizes the experiences of the reader, the patron, and his social milieu. The inclusion of portraits of important figures indicates that the audience for this manuscript is highly targeted. Unlike the people depicted in the Fitzwilliam manuscript and others that share these properties, Béraud III is not a passive recipient of knowledge, but part of a complicated exchange of information. Here, the social interactions take place between objects and groups of individuals who are capable of transforming texts, images, and their meanings.

Perhaps the best way to demonstrate the peculiar agency of the patron, and the role that his knowledge could play within the social world, is to return once again to the image generally interpreted as Béraud III receiving an anatomy lesson (Figure 15).²⁹³ This image is distinct from most of the others in the book because it takes place in the patron’s home, identifiable because his arms and heraldry appear on the vaulted ceiling.²⁹⁴ A small white dog rests on a cushioned bench, emphasizing the domestic setting. The relaxed environment also helps to give us the sense that this is a comfortable and informal exchange compared with the images that show crippled patients waiting in a line to see a physician in his office in other Bartholomaeus manuscripts (See Figures 38 & 39).²⁹⁵ In Figure 15, two figures, one the patron in aristocratic clothing and the other, a physician, stand before a framed anatomical illustration that hangs on the wall. The two

²⁹³ Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master*, 59; Schaer, *Tous les Savoirs du Monde*, 95.

²⁹⁴ *Ibid.*

²⁹⁵ See, for example, BnF fr. 33533, fol. 45. Images of this type are discussed further in Chapter Five.

figures look towards each other and gesture thoughtfully in the direction of the representation. It is worth noting that, though the existence of wall-sized anatomical illustrations cannot be completely discounted, no such images are known to survive from the middle ages. Nor, to my knowledge, are they attested to in other sources. This picture within the picture, I argue, can therefore be understood as another way of naturalizing the “thought bubble” as seen in Figures 28-33. The patron probably never had such an object in his home; as a strategy for differentiating mental representations from the natural world, its presence merely indicates that he shares understanding with the physician.

It is surprising that, while this image seems to be a favourite for scholars of this manuscript, no mention appears to have been made of the patron’s unusual posture. His dynamic, extended leg is highlighted by its position in front of the physician’s robe and mirrors the gesture made by the patron’s hand. This active pose should make us question whether the patron is simply receiving a lesson or if he is instead demonstrating his vital role in his own health and medical treatment. In many ways, the figure of Béraud has more in common with Imperato in his *Cabinet of Curiosities* than with the lame and physically injured figures in the image of the “*physician addressing the ill*”²⁹⁶ in the Fitzwilliam manuscript (Figure 34). In this latter scene, the physician is positioned on an impressive, throne-like chair where he makes a speaking gesture that is not altogether different from those made by both the physician and the patron in BnF fr. 9141. The ill in this case are older, bearded and wearing much less elegant clothing than the individuals seen in the rest of the book. They are also presented in crouching postures, displaying their wounds limply, and carrying crutches. These figures could not be more different in

²⁹⁶ Meiss, *French Painting in the Time of Jean de Berry: The Boucicaut Master*, Figure 456 (in Meiss).

attitude and constitution from the energetic patron of fr. 9141, who stands upright and fashionably dressed. His extended leg triangulates his body in order to give the impression that he is active and capable of moving in the space. It is perhaps the stability of this figure and his very uprightness that has caused past scholars to conclude that he is simply a student rather than an unconventional and educated patient.

There is some external material evidence that supports the argument that the patron would want to be displayed as an educated user of medicine. The inclusion of the famously complicated and beautifully executed “Zodiac Man” image in *Les Très Riches Heures du Duc de Berry* has been used to show the interest in astrological medicine and phlebotomy on the part of the Duke (Figure 10). This connection is strong due to the tie between fr. 9141 and the Duke, who appears in portrait within it.²⁹⁷ The inclusion of an image generally found in specialized medical texts is somewhat unusual in a devotional book and the computational frame surrounding the figural group, which contains a solar and lunar calendar that could be used to calculate times when surgical intervention on the body was appropriate, is highly sophisticated. This frame indicates both that knowledgeable individuals were involved in the design of the image and also that the Duke is likely to have understood what these things meant. Though the Duke would not carry out surgeries or phlebotomy on himself, it is clear from historical sources that he played an active role in his own health by, for example, insisting on a course of

²⁹⁷ These texts include Harry Bober, “The Zodiacal Miniature of the *Très Riches Heures* of the Duke of Berry: Its Sources and Meaning,” *Journal of the Warburg and Courtauld Institutes* 11 (1948): 1-34; Meiss, *French Painting in the Time of Jean de Berry: The Limbourgs and Their Contemporaries* (New York: George Braziller, Inc., 1974); T.V.N. Persaud, *Early History of Human Anatomy - from Antiquity to the Beginning of the Modern Era* (Springfield, Illinois: Charles C. Thomas, 1984); Robert Herrlinger, *History of Medical Illustration from Antiquity to A.D. 1600*, trans. Uitgeverij G. F. Callenbach N.V. (London: Pitman Medical and Scientific Publishing Co. Ltd., 1970)

bloodletting before gambling.²⁹⁸ If the astrological frame was not strictly functional in a medical sense, it certainly had an epistemic function.

The portrait of the patron in BnF fr. 9141 can be interpreted in a similar way, given the placement of the representation in the book and its close association with personal symbols. Regardless of whether a wall-sized hanging medical illustration like the one featured in this miniature existed, the fact that it is pictured as an integral feature of Béraud III's household is significant evidence that the patron claims the right to mastery over this material. Indeed, the images that show these types of relationships between scholars, clerics and physicians (the types of readers previously connected with encyclopedic texts of this kind) and the aristocrats, can be understood as metaphors for the relationships between the ideal reader and the transmission of knowledge. Whether or not the gentlemen are receiving instruction, they as readers are *competent* and capable of participating in a dynamic cycling of knowledge. Understood in this way, images that show the readers of the encyclopedia engaged in the active use of their education and understanding, without recourse to their books, and in a shared space, are representations of the *social life* of the knowledge contained within the codex they illustrate.

Bartholomaeus' *On the Properties of Things* has several features that doubtless made it interesting to the elite French audience that copied and illustrated it with such frequency. In this chapter, I have examined the images contained within fr. 9141 as evidence for the kinds of responses that these elite audiences, with their interest in active, private reading, and conveying status on the basis of knowledge, may have had to this text. While studies in response often focus on textual evidence, the miniatures studied

²⁹⁸ Meiss, *French Painting in the Time of Jean de Berry: The Limbourgs and Their Contemporaries*, 145.

here also tell us something about the potential uses of the illustrated book. This text was open to reader response to the extent that the use of knowledge, as an integral part of reception, is the primary subject of this manuscript's illustrative program. Though the Fitzwilliam manuscript and fr. 9141 were illuminated in the same workshop, the figures in each copy are placed in different positions in relation to the circle of knowledge. Subtle shifts in the illustrative program may signal changing audiences and changing epistemic goals. For the patron of my primary case study in this chapter, Béraud III de Clermont-Sancerre, the ideal reader was an active agent who worked with the text and displayed his interest in universal knowledge socially, among peers and experts. The openness of the encyclopedia made it well suited to these needs, but also myriad variations.

In the next chapter, I examine a mid-fifteenth-century French copy of *On the Properties of Things*, BnF fr. 135/6, that uses many diagrammatic images to mediate the content of the encyclopedia. It is an unusual case because the thinking figures, a defining feature of the illustrative program of this text from the time of its translation into French, are not found in this manuscript. Indeed, at first glance the illustrative program of this copy appears to have little in common with the Boucicaut manuscript and its predecessors. Even with the dramatic change in strategy, however, its image program encourages similar mental activities to those modeled by the thinking figures. There are, however key differences in how the aesthetic strategies work in this second copy of Bartholomeus' text. Chapter Five focuses on how the affective position of the reader changes when the thinking figures are removed, although the work of cognitive processing is still implied. Finally, Chapter Six examines the diagrammatic images in the

BnF fr. 135/6 manuscript, claiming that a reader who wants to decipher these complex representations must take the active and questioning approach to the material that is allegorized in the thinking-figure miniatures.

Chapter Five: Reflected in the Mirror of Knowledge: BnF fr. 135/6

The study of the Boucicaut codex in the previous chapter was a commentary on a range of illustrative strategies that helped to transform Bartholomaeus' antiquated text into something that could speak to an elite French audience with social goals and agency in relation to knowledge. It did so by presenting individual readers in its images as allegories of knowledge: the figures display their mastery over the text and love of wisdom through the suggestion of specific parts of the thinking process. As the figures move through meaningful landscapes that reflect the readers' thoughts on the topic of each book, they participate in the social exchange of knowledge by sharing important conversations with friends and experts. These images present the reader with a clear sense of the social and intellectual value of the book and they also invite a reader/viewer to imagine the place of his voice within cognition and understanding. Nevertheless, they do not take up the more challenging project of directly illustrating the epistemic content of Bartholomaeus' complex and sometimes inconsistent text. Indeed, while many French copies of this work show whimsical environments that refer to the broad topic of each book or its rubric, they do so with such generality that it is often impossible to distinguish the subject of one image from another through interpretation of the images alone.²⁹⁹

While these thinking-figure images give us a broad sense of what the figures are

²⁹⁹ For example, the casual viewer of BnF fr. 9141 would not likely notice a vast difference between the miniature illustrating the regions of the world (Figure 27) and that illustrating the book on water (Figure 25), despite the significant variance in topic.

discussing, the representations do not attempt to materialize the focused complexity of the dynamic *mental images* that can be inspired by the text.³⁰⁰

On the other hand, BnF fr. 135/6 has a complex and varied artistic program that takes on the challenge of representing some of the intricacies found within the text. Viewed together with that of the Boucicaut manuscript, the illustrative program of BnF fr. 135/6 adds a second way for us to expand our understanding of the cognitive value of images in encyclopedic manuscripts. There are so many different representational modes and artistic priorities at work in this manuscript that it is impossible to discuss its range of images as cleanly as in the previous chapter. My study of BnF fr. 135/6 and its multiple approaches to the mediation of knowledge, therefore, unfolds over the following two chapters (Chapters Five and Six). This first chapter includes (i) an outline of the limited biography of BnF fr. 135/6 and (ii) an overview of the types of images found within the program of this unusual manuscript, which, to the best of my knowledge, was not reproduced in other copies. It introduces both pictures of ideal readers that are subtly but significantly different from those highlighted in the previous chapter, as well as miniatures that represent complex pictorial translations of Bartholomaeus' text in terms of their content, structure, and program. In addition to this general overview, this chapter (iii) examines the changing affective position of the viewer that is brought about by the displacement of the thinking figures and the more insistent focus on mental images. Specifically, I suggest that the images in this manuscript present human bodies as the *subject* of examination. The removal of the mediating thinking figures helps to destabilize the reader's position as a detached observer and encourages a more direct

³⁰⁰ See Giselle de Nie and Thomas F.X. Noble, eds., *Envisioning Experience in Late Antiquity and the Middle Ages: Dynamic Patterns in Texts and Images* (Surrey, England and Burlington, VT: Ashgate, 2012).

engagement with text and image. The discussion of the important diagrammatic images in BnF fr. 135/6, and the existence of the diagrammatic aesthetic form in other types of late-medieval manuscripts, will be reserved for Chapter Six.

The two chapters on the topic of this case study are directly connected because the removal of the thinking figures, in addition to altering the position of the viewer as studied here in Chapter Five, leaves us with images that appear diagrammatic because they “zoom in” on the visualized thoughts of the absent figures. The images are not representations of readers in acts of thinking, but are instead “thoughtlike” objects, rendered in a cognitive style that reflects the encyclopedic project and, in turn, activates the reader’s complex mental process.³⁰¹ They are the product of careful reading and synthesized understanding on the part of the manuscript’s artists and designers. This subtle change in illustrative strategy from examples like the Boucicaut manuscript makes BnF fr. 135/6 an outlier among Bartholomaeus manuscripts and thus very useful to my work on the cognitive functions of encyclopedic images. Though these specific miniatures are not credited with inspiring wide change in the illustrative priorities of the genre, they deserve special attention for two primary reasons. First, the sophisticated closeness between text and image means that they represent an unusual opportunity to see a contemporary reader’s interpretation of select aspects of the text. In this case the artists and/or image designers are clearly readers of Bartholomaeus. These images encourage particular modes of “encyclopedic” thought by using specific aesthetic strategies that help readers to foreground the collection and division of information. Second, the artists involved go about the task of mind-mirroring by using types of images that are re-

³⁰¹ Barbara Maria Stafford, *Echo Objects: The Cognitive Work of Images* (Chicago & London: The University of Chicago Press, 2007), 24.

invented as hallmarks of the encyclopedic genre in later centuries, including most famously Diderot's *Encyclopédie*. These include the presentation of complex information as diagrams, patterns of schematization, and list-like elements, each of which would be understood differently in the minds of readers/viewers.

Significantly, the novel closeness between text and image and the varied nature of the program means that the illustrations in BnF fr. 135/6 *challenge* the vision of placid courtly intellectualism found in the Boucicaut manuscript and many other fourteenth and fifteenth-century copies of this text. Its images dramatically alter the viewer's affective position by shifting the focus towards the complexity of Bartholomaeus' words and the analytical work that must be carried out by the reader. Faced with pictures that highlight both human fragility and the puzzles imbedded in the book's juxtaposed perspectives, readers no longer see themselves reflected back as knowledgeable observers. Instead, I suggest here that these readers and their manifold imaginings emerge as vulnerable subjects of their own scrutiny.

(i) BnF fr. 135/6

This case study is a two-volume, mid-fifteenth-century copy of Jean Corbechon's translation of Bartholomaeus' book, currently housed in the Bibliothèque nationale de France (Richelieu, Paris). There is no available information concerning the patron or original owner of the work, making the biography of this manuscript more mysterious even than that of fr. 9141. It is likely to have been produced in Le Mans, a city slightly north of the manuscript center at Tours, but there is little evidence concerning the identity, occupation or social position of the person who originally owned and used the

book. In this historical context, the book could have been available to a relatively wide range of wealthy audiences including scholars, aristocrats, professionals, and merchants. It is possible that the intended user of this copy was quite different in status and occupation than the aristocratic user of fr. 9141, but there is inadequate historical or textual evidence to make a certain claim in this regard.³⁰² The identity of the artists who illustrated this work, and the context of their workshop, is similarly unknown. Visual analysis suggests that there were a number of painters involved in the production of the miniatures, which vary in style, fineness of detail, level of interest in landscape, and use of colour. The main variation between the miniatures within the copy is the level of attention dedicated to subtle and naturalizing features.

There have been a few attempts to attribute this book to a particular workshop or group it with other copies of Bartholomaeus' text. The artist has been referred to as the "Master of BnF Français 135/6" by E. König with reference to several fifteenth-century paste-downs that have been found in Huntington HM 1101, a Book of Hours (Figure 40).³⁰³ This rather tentative connection is weak when a visual comparison is performed and, furthermore, König's original text includes a typographical error that leads to a different manuscript in The Huntington Library, Berkeley.³⁰⁴ The style of the figures in the Huntington manuscript, including the lack of muscular articulation in their bodies and the simplicity of their faces, combined with the significant artistic range of the images in fr. 135/6 makes this connection questionable.

³⁰² Millard Meiss claims that the Fitzwilliam manuscript, which has some similar features, was intended for a scholarly or professional audience. The unusual focus on diagrammatic images here suggests that this may also be the case for BnF fr. 135/6. Millard Meiss, *French Painting in the Time of Jean De Berry: The Boucicaut Master* (London: Phaidon, 1968), 58.

³⁰³ Eberhard König, *Französische Buchmalerei um 1450: der Jouvenal-Maler, der Maler des Genfer Boccaccio und die Anfänge Jean Fouquets* (Berlin: Gerbr. Mann, 1982).

³⁰⁴ Huntington Library Online Catalogue. <http://sunsite3.berkeley.edu/hehweb/HM1101.html>.

There is very limited scholarship on fr. 135/6 and almost no art historical analysis has been devoted to it. It is mentioned only in passing in an article by Otto Pächt, “*La Terre de Flandres*,” which discusses the work in relation to a French copy of the encyclopedia illustrated by Simon Marmion (British Library, Cotton MS. Aug. A. VI, Figure 40).³⁰⁵ BnF fr. 135/6 does indeed have several remarkable similarities with the Marmion copy, reflecting a strong Netherlandish influence and an unusual emphasis on complex landscapes. While fr. 135/6 is not a direct copy, it is likely that the Le Mans manuscript was created by an imitator or an individual with access to the Marmion copy, who then adapted some of its aesthetic features.³⁰⁶ With such limited information available we are left to speculate about the conditions in which this manuscript was used and viewed. It is possible that the images, and their relationships with the standard text, are the best available evidence about the nature of the intended reader in the absence of written details about the patronage context.

(ii) Overview of the Illustrative Program

Like those of most French Bartholomaeus manuscripts, the illustrative program of BnF fr. 135/6 revolves around the division of the text into nineteen books, with most sections receiving just one miniature that acts something like a visual prologue or *summa*. There are two important exceptions to this distribution of images: the presentation scene showing Jean Corbechon handing his translation to Charles V, and the book focusing on creatures of the air, *De avibus*, which has a single large miniature at the beginning of the book, followed by thirty-seven small illuminations, up to three of which can be placed on

³⁰⁵ Otto Pächt, “La Terre De Flandres,” *Pantheon* 36 (1978): 3-16.

³⁰⁶ *Ibid.*

a single page. BnF fr. 135/6 includes many more images than the Boucicaut manuscript because, in addition to the unusual number of bird illustrations in Book XII, it includes miniatures for Book VI, *De etate hominis*, Book VII, *De infirmitatibus*, Book IX, *De temporibus*, Book XI, *De aere*, and Book XIX, *De accidentibus*.³⁰⁷ The miniatures are not only more numerous but they also, in certain cases, more obviously reflect the central content of each book. For example, while the Boucicaut manuscript uses a charming image of a couple in bed and an Ages of Man image to illustrate Book X, *De materia et forma*, BnF fr. 135/6 reflects the nature of matter, form, and the qualities of fire through an inventive diagram that I will discuss in Chapter Six (Figure 42).

The inclusion of only a limited number of miniatures per book in most cases presents some challenging limitations to artists who usually have only one small frame in which to illustrate a potential world of information. In the case of BnF fr. 135/6, the artists have dealt with these limitations in novel ways, leading to an image program that is more “true to text” than other examples. A content-based approach is tackled in a variety of ways in the range of encyclopedic manuscripts I have studied, including the depiction of generalities, allegories, or personifications, the skillful appropriation of tropes associated with other genres (e.g. the Ages of Man, The Labours of the Month), and the sophisticated compression and division of the textual content.

The miniatures found in BnF français 135/6 showcase *all* of these strategies in some form, but the mastery over the last, compression and division, is most striking and unusual. The use of a diagrammatic or emblematic mode of representation in this program, though highly inconsistent, reflects an interest in the *visualization of the*

³⁰⁷ For an outline of the illustrations and rubrics found in BnF fr. 135/6, see Appendix B.

encyclopaedic project of the text itself on a programmatic level. These miniatures are clearly the product of careful reading and a thorough understanding of *On the Properties of Things*. They conjure up the details of the book's subject and reflect a sophisticated synthesis of information. There are also structural similarities, to be discussed further in Chapter Six, between these diagrammatic visual elements and the compendium—understood as a “brief summary of the principles of a particular subject” and built on the strategies of *collectio* and *divisio*, as discussed in Chapter One.³⁰⁸ In other words, it is possible to interpret many of the pictures within this manuscript, which schematize and summarize content, as “encyclopedic” in their aesthetic goals.

These aesthetic changes and shifts in focus mean that the reader of BnF fr. 135/6 would have had a different relationship to the objects and people depicted in the miniatures than the viewer of the Boucicaut manuscript would have had with the thinking figures discussed in Chapter Four. Without the mediating thinking figures, the human bodies in BnF fr. 135/6 are both *mirrors* that reflect the reader's ideal relationship to the text and the *subjects* of the viewer's study. Among other significant developments, the human body emerges as a specimen, much like the anatomical image that is contemplated by Béraud III and the anatomist in the Boucicaut manuscript (Figure 15). This approach to the body as specimen is significant because seeing the self reflected in such a mirror does not allow the reader the luxury of remaining a detached observer. The illustrations

³⁰⁸ Kimberly Rivers, "Memory, Division, and the Organization of Knowledge in the Middle Ages," in *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress*, ed. Peter Binkley (Leiden, New York, Koln: Brill, 1997), 157.

thus encourage the viewer to approach the viewing process actively and from “inside the text,” in much the same way that the encyclopedic form itself does.³⁰⁹

(iii) Reflecting Readers

The Vulnerable Reader: ‘*De elementis*’

A good way to introduce the changing affective response that is generated from the omission of the thinking figures, and a reliance on different aesthetic strategies, is to look at the miniature that appears at the beginning of Book IV, on the topic of the elements (Figure 9). This miniature also showcase’s the diagrammatic style, to be further analyzed in Chapter Six, that is so important in this manuscript. At first glance, it is a dramatic explosion of rich colour and surface pattern. This striking image consists of a rectangular composition that is divided rather severely into four unequal quadrants, representing air, earth, water, and fire. In place of the elegant thinking figures found in earlier manuscripts we note a somewhat androgynous figure, male but nevertheless neutral and sexless, who is splayed across the format with one limb in each of the partitions. The individual quadrants are distinguished from each other through contrasting colour and texture, with the principle division being the center horizon line. The panel is further separated into cool land and water, blazing red sky, and flames.

I use this image as an entry point to this particular case study because, when compared with the representation of the elements in the Boucicaut manuscript (BnF fr. 9141, Figure 17), this illustration highlights the different visual characteristics that make BnF fr. 135/6 so important and unusual, and indicate to us the polysemous nature of text-

³⁰⁹ Laurel Amtower, *Engaging Words: The Culture of Reading in the Later Middle Ages* (New York: Palgrave, 2000), 1-4.

image relationships for any text. The image of the elements in BnF fr. 9141 features a group of individuals in the reader's social circle, including a portrait identified as Jean sans Peur, who stand together in active contemplation of the elements. They are positioned as observers of this natural phenomenon and they view a symbol representing the subject from a truly respectable distance. Indeed, the concentric circles that represent a mental image of earth, air, fire, and water in the upper right corner appear to be so far away from the observing group that the elements might be misunderstood as a distant planet.

The image in BnF fr. 135, on the other hand, rips the human body from the safety of the foreground, strips it of the attributes that would place it in relation to social status or context, and throws it into the center of the cosmic action. The figure here is positioned in a strained recumbent pose that emphasizes the subject's physical, and perhaps spiritual, vulnerability.³¹⁰ The lounging pose and nudity of the figure could be considered erotic if the figure were not so sexless and ashen.³¹¹ Instead, we have a figure that appears helpless and anxious. He encounters the elements not intellectually among friends, but alone and bodily. His deathly grey pallor and the way his limbs take on the glow of the elemental segments heighten our understanding that his body, and perhaps also that of the reader, is at the mercy of the environment. Indeed, the body is what links the elements together. The human body's connection with and susceptibility to the

³¹⁰ Other images representing a closer human relationship to the elements can also be found in contemporaneous copies of *On the Properties of Things*, including BnF fr. 22533, fol. 34v. and BnF fr. 134, fol. 37. Those illustrations that remove the thinking figures generally position the nude body in an erect and active position, surrounded by, rather than engulfed in, the elements.

³¹¹ A related image to this one in the French Bartholomaeus manuscripts would be images depicting a lounging Adam receiving life from God. This scene usually illustrates *De anima*, a discussion of the soul which appears directly before the discussion of the elements illustrated here. An example of this type of image can be found in BnF fr. 9141, fol. 29. This connection to the figure of Adam may be intentional, given the relationships between the topic of the creation of man and Bartholomaeus' discussion of the constituent parts of man's body in this book.

natural elements is a key point in Bartholomaeus' text. The intensity and emotion of this image, along with the absence of the naturalizing features seen in BnF fr. 9141, makes it clear that this is not a representation of nature but something closer to what would be considered an effective *memory image*.³¹²

Like many of the images in this manuscript, it displays distinct diagrammatic qualities. The environment of the figure is not a worldly surrounding but a schematization of the world's divided properties. There are several small details that help us understand the divisions important to the image, such as the subtle yellow flowers that are distributed evenly over the green earth, the swirls that indicate that the expanse of blue in the lower right corner is water, and the curled flame tendrils that lick up toward the sky. Overall, however, these details create a patterned, quilt-like effect rather than a naturalistic rendering of earthly properties or elements in a landscape. Small details aside, each of the elements has been reduced to those features that would make them readily identifiable to the viewer. The water is not populated with attractive fish, as we might expect to see in the images of fr. 9141, nor is the land cluttered with rocks, trees, or animals. It is the geometry of the composition and the theory of the relationships between the body and the elements that are emphasized.

Even so, the geometry of the scene does not have the rigidity that we might expect to see in a diagram because the elemental segments overlap, lending a sense of fluidity to the divisions. Like so many aesthetic choices in this manuscript, this lack of formal precision, and the unusual vulnerability of the figure, are meaningful representations of the text's content. In this case, the notion of flux and the complicated relationship

³¹² Characteristics of a memory image are outlined in Peter Parshall, "The Art of Memory and the Passion," *Art Bulletin* 81, no. 3 (Sep., 1999): 456-472.

between the figure and the elements is appropriate. Though idealized, this image offers an *embodied* view of the concepts discussed in the text, meaning that even its abstract scheme is linked to the reader-viewer's worldly reality. While the fourth book of Bartholomaeus' text is simply called *De elementis*, the content revolves around the ways that the elements act on the human body through their related humours. This is clearly expressed in the image's rubric in this manuscript, which states "*cy commence le IIIIe livre des qualitez des elemens et des quatre humeurs desquelles sont composees les corps tant des hommes comme des bestes.*"³¹³ What is represented in this miniature, however, is not a simple depiction of the incipit or the fact that there are four essential elements, but a repetition of Aristotle's view, as explained in Bartholomaeus' text, that "the ultimate nature of matter was continuous and without voids, each part of matter being attached to another."³¹⁴

Therefore, I would argue that the figure in this image, even in his passive state, interacts with the elements in a way that is much "truer to text" than the thinking figures. While this may make the diagram somewhat more useful for a reader who might want a memory aid or a guide to understanding the text, this reflection of human fragility disrupts the privileged position of the reader as it is visualized in BnF fr. 9141. If one wants to understand this particular *De elementis* miniature and the text it represents, I would suggest that the reader/viewer must be immersed within it. The absence of the thinking figures means that it is impossible to stand outside the circle of knowledge as its master.

³¹³ Transcription from MS BnF fr. 135, fol. 91.

³¹⁴ M. C. Seymour and Colleagues, *Bartholomaeus Anglicus and His Encyclopedia* (Aldershot, Hampshire, and Brookfield, Vermont: Variorum, 1992), 54.

Reading Status: Clothing, Nudity and Social Hierarchy

The figure in the elements image is not the only example of a miniature that highlights the fragility of the human experience. Indeed, casting the human image in the role of specimen is one of the most characteristic illustrative strategies used by the artists of BnF fr. 135/6. This shift in the representation of the body does not represent a complete divergence from the pictorial tradition of the thinking figures discussed in the previous chapter. The image of the physician visiting his patient in BnF fr. 135/6, which comes at the beginning of Book VII on human illnesses, is one of the closest to those allegories of thinking studied in the previous chapter (Figure 43). The differences, though subtle, are instructive. Here, the painter has depicted a nude patient lying in a luxurious bed with a richly decorated canopy and linens. The ailing individual has no easily visible illness but has a pained expression, suggesting that his treatment will require some careful analysis. Though the invalid is clearly a wealthy person with a social status that may be equivalent to the intended reader, his nakedness and prone position also closely resemble the vulnerable figure in the elements diagram that surfaces earlier in the manuscript (Figure 9). What emerges from this parallel is the message that the reader too is susceptible to the ailments listed in the text. The intended readers of this manuscript would likely have been able to relate to this elegant peer, who would be more difficult to depersonalize than the disheveled elements figure.

This mirroring, through the representation of a wealthy patient, is an unusual and meaningful decision. The sick are most often differentiated from the reader through their presentation as decrepit members of the lower classes in the miniatures that precede Bartholomaeus' book on human maladies. Frequently wearing short tunics and visibly

bleeding, they point to affected areas of their bandaged bodies, or they stand hunched and supported by crutches. There are other signs of the status differences between doctor, patient, and reader in most French copies of *On the Properties of Things* as well. In BnF fr. 22533, a patient deferentially removes his hat as he approaches the doctor (Figure 38), whereas in the Huntington manuscript (HM 27523 s.XV) the ill are noticeably smaller in stature than the intervening physician (Figure 39). Indeed, the most extreme case of disconnection between reader and human specimen, BnF fr. 218, includes an image that places the physician at the centre of the composition while the green-faced patient is relegated to a small portion of the outside margin (Figure 44). The centrality of the physician's position in this particular manuscript is solidified in a later miniature that illustrates the topic of anatomy by featuring a group of professionals surrounding a cadaver in mid-dissection (Figure 45).³¹⁵

These comparanda highlight the unusually close connection between the patient and reader in BnF fr. 135/6, but this is not the only possible mirroring figure in the composition. In stark contrast to the fragile image of the patient, the physician who stands behind the bed is beautifully and heavily dressed, wearing a striking blue robe with gold cuffs, a cloak, and hat. The form of dress worn by the physician is repeated with some small variations in a number of illustrations, including the father figure in the miniature often referred to as the "Ages of Man" (Figure 46), the central figure who is seated by a

³¹⁵ As noted in Chapter Four, Millard Meiss has argued that the Fitzwilliam manuscript may have been produced for a professional or medical audience, citing the inclusion of medical jars and scenes featuring physicians as evidence. While these features are relatively common, causing Byrne to question this argument, BnF fr. 218 brings a level of detail to medical and anatomical scenes that suggests a knowledgeable audience. See, Millard Meiss, *French Painting in the Time of Jean De Berry: The Boucicaut Master*, 58-59; Donal Byrne, "The Boucicaut Master and the Iconographical Tradition of the *Livre des propriétés des choses*," *Gazette des Beaux-Arts* 92 (1978): 149-164, 155.

fire in the image of the “Labours and Seasons” (Figure 47) and the experimenting “perceiver figure,” to be described below (Figure 48). This near repetition in costume, and its relationship to figures who demonstrate agency and authority, suggest that these figures too may be intended models for the reader.

An important distinction between the physician in Figure 43 and the thinking figures in BnF fr. 9141 is that, in the former case, we clearly have a professional rather than a group of aristocratic amateurs and scholars using their knowledge at leisure together. This may indicate that the intended readers were also professionals, or as Millard Meiss wrote in his analysis of the Fitzwilliam manuscript, it may have been for a “more serious” audience.³¹⁶

The repetition of the blue costume comes in tandem with a repeated use of nude or nearly-nude figures, who are used in the representation of specimen-like individuals. Representing the subject of the body and soul (Figure 49) and the human body/anatomy (Figure 50), the unclothed individuals are quite unlike the nudes seen elsewhere in medieval art.³¹⁷ Rather than being classical allusions, sexualized figures, or allegories of either sin or saintliness, these nudes simply display their bodies for examination. Like the figure that illustrates *De elementis* (Figure 9), these figures are gendered but sexless, making it clear that these are not portraits but somewhat neutral sites of serious examination. They are posed with arms and legs outstretched in order to maximize visibility and invite the viewer’s *analytical gaze*. The figures themselves keep their eyes lowered and directed to the side but, though their presence is not obviously

³¹⁶ Meiss, *French Painting in the Time of Jean De Berry: The Boucicaut Master*, 58.

³¹⁷ See, for example, Sherry C.M. Lindquist, ed., *The Meanings of Nudity in Medieval Art* (Surrey, England & Burlington, Vermont, 2011).

confrontational, the lack of mediation normally provided by the thinking figures forces a more immediate connection between reader and human specimen. They perform the part of the reader, either as reflections of the self or mirrors of their knowledge.

The Perceptive Reader: ‘*De Sensu*’ and Sensory Analysis

The final miniature of BnF fr. 135/6’s illustrative program centers on an intriguing figure, which I will call “the perceiver” (Figure 48). By studying what differentiates him from the groups of detached observers examined in Chapter Four, we can see how he represents a slightly different kind of ideal reader. The miniature is placed at the beginning of Book XIX, which discusses various “accidentals” that do not fit well in the previous chapters. Though the book’s title is vague, the text is primarily concerned with information related to human perception and Aristotle’s theories of colour. According to M.C. Seymour and his colleagues, the main source for this chapter is Aristotle’s *De sensu*.³¹⁸ The text also discusses tastes, odours, numbers, weights and measures, and items/processes related to the natures of animals, including honey and milk.

The image preceding this chapter focuses on a figure in a long cloak that is similar to those worn by the physician and other figures of authority within the manuscript. He carries a purse on his belt and kneels in front of a pedestal table, which is tipped up to reveal a number of gold containers and weights. The figure holds a bundle of plants in each hand, raising one to his face in order to taste and smell it. We get the impression that he is in the process of wide experimentation through sensation; alone, he is engaged in testing, trying and perceiving each object in his environment. Above the

³¹⁸ Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 232.

kneeling figure, taking up approximately a third of the composition, a rainbow of layered colours is represented. The rest of the environment is lush and filled with colourful and presumably fragrant flowers. Each of these small details represents something about the content of the text, while the figure helps to root this content in the experience of the senses.

This solitary experience of testing and sensing the ideas expressed throughout Book XIX, while related to the images of scholars and aristocrats in conversation, sets a remarkably different tone. In this final image of the manuscript, the message about the source and uses of knowledge is not directly related to social exchange, or indeed the need for a communally shared knowledge base. Instead, the reader might be led to understand that the information is, though occasionally inconsistent, testable by learned individuals, and that the authority of the encyclopedia can be situated within the individual critical reader.

This individual does not place himself at a distance from the physical manifestations of the book's content, standing back to observe like the patron portrait in BnF fr. 9141 (Figure 15). Instead he experiences them directly. This approach is not altogether unique and this experimental mode is displayed, with some key differences, in several other Bartholomaeus manuscripts. An important variation that displays the significance of the perceiving figure in BnF fr. 135/6 is found in a late fifteenth-century copy, BnF fr. 22533 (Figure 51). Here, a group of four individuals stand in the corner of a room and watch as a fifth figure uses tiny hammers to ring bells that are hung on the wall. We can tell that the sounds have a connection with what we are about to read in the text because the group of four holds and points to a book. Interestingly, while this book is

clearly a source of relevant information for the group, linking them with the action of the scene, it also acts as a barrier that separates them from the sensory experiences that they study.

Thematically, the image of musical experimentation is reminiscent of some fifteenth-century medical images that illustrate the public dissection of human cadavers. A woodcut from Johannes de Ketham's *Fascicolo di Medicina* (1493, Figure 53) shows a similar hierarchical scene involving a barber surgeon who works the blade, a group of observers who watch and discuss with each other and, finally, the expert anatomist who sits above the scene behind a podium. The need to illustrate status by disassociating the elite expert from the more practical aspects of knowledge transmission and creation has been noted in much of the scholarship that surrounds the practical contributions of the anatomist Andreas Vesalius in the early sixteenth century.³¹⁹ Viewed in comparison, we might say that the perceiver figure in BnF fr. 135/6 is "Vesalian" in the way that he tests the validity of classic texts through experimentation. Like the sixteenth-century surgeon Vesalius, the figure in BnF fr. 135/6 uses his senses to engage in direct verification of what he studies, giving the figure an unusual sense of authority over the material and, in turn, attesting to its validity. The pose of the perceiving figure represents a much more immersive attitude towards the knowledge contained within the book, suggesting that reading is only part of the process of comprehension.

In this way, we can interpret the actions of the perceiver figure as both a representation of the senses and a commentary on the many contradictions within

³¹⁹ Nancy G. Siraisi, "Vesalius and Human Diversity in *De Humani Corporis Fabrica*," *Journal of the Warburg and Courtauld Institutes* 57 (1994): 60-88.; Glenn Harcourt, "Andreas Vesalius and the Anatomy of Antique Sculpture," *Representations* 17, Special Issue: The Cultural Display of the Body (1987): 28-61, 39 & 40.

Bartholomaeus' text. Furthermore the active position for viewing material objects demonstrated by the perceiver figure is simply required for understanding the more diagrammatic miniatures in the manuscript. Like the items collected on the table, the miniatures in BnF fr. 135/6 are working objects with properties that are worthy of active interrogation. In the words of Küchler, we must understand them as "targets for a mind eager to project itself onto mirrorlike surfaces."³²⁰ They highlight the sensory role in the knowledge cycle and offer a different way for readers to analytically engage with the content of the book.

In this chapter, I have presented an overview of a range of different illustrative strategies that are present in a single manuscript. The value of this comparative case study is that we get to study different representational strategies and how they achieve different ends. Each of these strategies relies on complex aesthetic principles so that the text-image relationships work dynamically to model cognition and imagination. The following chapter continues the discussion of visualized knowledge and sensory analysis by focusing in particular on the diagrammatic images in BnF fr. 135/6. It investigates some of the complex visual puzzles that also encourage analysis on the part of the viewer, examines the list-like qualities of the image program, and analyzes how individual miniatures reflect the principles of cognitive compression and division in the text. The chapter also includes a framework for understanding the place of such diagrams and visual lists in late-medieval and early-renaissance culture. This framework, which connects encyclopedic texts, cognition, and aesthetic form, fills an important gap in

³²⁰ Susanne Küchler, "Materiality and Cognition: The Changing Face of Things," in *Materiality*, ed. Daniel Miller (Durham and London: Duke University Press, 2005), 207.

scholarship on pre-modern images as much as it acts as a tool for understanding the meaning of the images in BnF fr. 135/6.

Chapter Six: The Encyclopedia and the Diagram: BnF fr. 135/6

The perceiver figure that illustrates *De sensu*, discussed at the end of the previous chapter, represents an experimental reader who can use his senses to interact with physical objects represented in the image, and, in turn synthesize new forms of knowledge contained within BnF fr. 135/6 (Figure 48). It is with this attitude of sensory inquiry that the reader must approach the diagrammatic and information-dense images that are the focus of this final chapter. While the distinctions between the categories of narrative and diagrammatic representations are not particularly clear in the context of this copy, and indeed several other Bartholomaeus manuscripts, diagrammatic pictures can be understood as functional objects that require careful analysis on the part of the perceiving and verifying reader. They contain information that we must “read” according to their internally governed semantic languages and provide the book user with another way to engage analytically with encyclopedic knowledge. Diagrammatic images are visually different from other types of images because of their reliance on distinct organizational divisions and aesthetic properties. These aesthetic strategies are “mindlike” and reflect the encyclopedic project of *On the Properties of Things*.³²¹

My argument here centers on the notion that there are strong aesthetic and epistemic parallels between encyclopedic and diagrammatic forms. These correspondences are meaningful and have their roots in the cognitive and mnemonic theories discussed in Chapter One of this dissertation. Medieval artists and writers may not have been consciously aware of these connections, but the writings of Hugh of St.

³²¹ For a discussion of the nature of “mindlike” images, see Barbara Maria Stafford, *Echo Objects: The Cognitive Work of Images* (Chicago: University of Chicago Press, 2007), 3.

Victor and others discussed earlier in this dissertation suggest the possibility that epistemic images were understood to have distinct properties in the middle ages. Whether or not the designers of the miniatures discussed here were aware of the model of Hugh's Mystic Ark, it is clear that the aesthetic and epistemic goals of these images are closely related to each other.

This chapter first (i) discusses some of the diagrammatic and list-like images found in BnF fr. 135/6. It frames them as visual puzzles and cognitive aids that reflect the nature of the encyclopedic text and have the potential to expand the reader's understanding of its content. It then moves to (ii) a broader framework for understanding medieval encyclopedic images that connects textual structure, modes of cognition, and visual form. My framework is based on John Bender and Michael Marrinan's discussion of the diagrammatic images found in Denis Diderot's and Jean le Rond d'Alembert's *Encyclopédie*, but I also re-frame their work to account for the existence of similar images in the pre-modern world.³²² My framework also relies on Barbara Maria Stafford's theory of complex, thought-like images in *Echo Objects: The Cognitive Work of Images*.³²³ Finally, this chapter (iii) addresses some other examples of diagrammatic images, extending the model to examine the relationships between professional medical manuscripts and luxury books produced in a courtly context. By examining these relationships, I apply my framework for understanding the cognitive role of encyclopedic images to amplify the importance of the Zodiac Man image in the *Très Riches Heures* of the Duke of Berry. Examining its increasingly naturalized figures alongside the addition

³²² John Bender and Michael Marrinan, *The Culture of Diagram* (Stanford, California: Stanford University Press, 2010).

³²³ Barbara Maria Stafford, *Echo Objects: The Cognitive Work of Images*. Chicago, London: University of Chicago Press, 2007.

of a diagrammatic computational frame, I argue that the miniature is more than an increasingly aestheticized medical image. Instead, the addition of the epistemically rich diagrammatic frame makes it a powerful thinking tool that could shape the thoughts and influence the behaviour of the reader.

(i) Diagrammatic Images in BnF fr. 135/6

As noted in the previous chapter, the illustrative program of BnF fr. 135/6 includes miniatures that take a range of approaches to the mediation of knowledge. Within this one copy, multiple artists have subjected the encyclopedic text to the kind of mental analysis discussed in the preliminary chapters of this dissertation. As active and engaged readers, the designers of these miniatures have read the text, reduced it to the form of a mental outline or diagram, and have created images that sometimes reflect this cognitive process. Having a deep knowledge of the encyclopedia allowed these artists to develop innovative ways of representing its content while still working with the conventions of the genre. More than elaborate containers for specific information, the images discussed in this chapter mirror the collected and hierarchically divided structure of the text in order to both simulate and inspire the kinds of internal imaginings that may follow its reading. This often results in the use of a diagrammatic aesthetic, an important mode of representation that is seen in several contexts in the medieval world.³²⁴

Cognitively speaking, the diagrammatic images found in BnF fr. 135/6 must be analyzed by “shuttling” between Bartholomaeus’ text, the images in the manuscript, and

³²⁴ The diagrammatic aesthetic can be found, for example, in medieval maps, cosmological images, medical drawings and tables of virtues and vice

the mental pictures generated through the process of understanding.³²⁵ This reading process connects the overall program of the manuscript. As de Nie and Noble argue in *Envisioning Experience in Late Antiquity and the Middle Ages: Dynamic Patterns in Text and Images*, “once words or material images have called forth one or more mental images in the mind, those images themselves generate new images with their inhering dynamic patterns.”³²⁶ These images, then, in their capacity to stimulate further visualization, destabilize the position of the encyclopedia and its readers. As material objects, these images are indeed “things that act as carriers of thought,” as Küchler argues, but the complex nature of medieval theories of memory and cognition means that these images act as dynamic *channels* of thought that are “abstract, conductive, and connective in nature.”³²⁷ The knowledge that is communicated through text and image interacts with what the reader already knows (this could be material from other parts of the encyclopedia, other books, the social exchange of information, or common knowledge) and opens up a space for the creation of new meaning.

Striking Images, Visual Puzzles

Topics such as the range of meteorological phenomena, which rarely exist together in a natural narrative scene, and more theoretical concepts such as the metaphysical qualities of form and matter, require a representational approach that involves abstraction and imaginative forms of compression. The results of these requirements are two of the most

³²⁵ Bender and Marrinan, *The Culture of Diagram*, 42.

³²⁶ Giselle de Nie and Thomas F.X. Noble, eds., *Envisioning Experience in Late Antiquity and the Middle Ages: Dynamic Patterns in Texts and Images* (Surrey, England and Burlington, VT: Ashgate, 2012), 4.

³²⁷ Susanne Küchler, “Materiality and Cognition: The Changing Face of Things,” in *Materiality*, ed. Daniel Miller (Durham, NC: Duke University Press, 2005), 207 & 216.

striking miniatures in this, or perhaps any, Bartholomaeus manuscript. They appear at the beginning of the books focusing on the elements of fire and air.

The illustration for Book X, like the content of the text itself, is somewhat difficult to interpret (Figure 42). It appears, in vivid colour, on the opening folio of the second volume of the text and presents a radical departure from the miniatures in the previous volume. The focus of the book, despite its conventional title, *De materia et forma*, is simply a more nuanced discussion of the element of fire. Within the text, Bartholomaeus discusses topics related to the element that range from the techniques used to make glass to the physical and spiritual properties of ashes.³²⁸

The reason the image and text are so hard to interpret might be that Bartholomaeus himself was unclear about what his sources had to say concerning the nature of form and matter. While Bartholomaeus is explicit about the nobility of fire—which is related to its clarity, luminosity, and its tendency to move up towards the heavens—M.C. Seymour and his colleagues describe the book as “a sketchy foray into philosophy, which he never repeats.”³²⁹ The tangled relationship between fire, matter, and the spiritual essence is among the most opaque covered in the encyclopedia.³³⁰

The mysterious miniature that accompanies this text in BnF fr. 136 is a vision of a burning cityscape floating within a sun-like orb, which rises above the ground and moves towards the lightning filled sky. The use of colour within the orb is appropriately warm for the subject of fire. The emphasis on large church structures, and other buildings with tall spires within the orb matches the content of the text, which deals with the particular

³²⁸ M. C. Seymour and Colleagues, *Bartholomaeus Anglicus and His Encyclopedia* (Aldershot, Hampshire, and Brookfield, Vermont: Variorum, 1992), 125-6.

³²⁹ *Ibid.*, 125.

³³⁰ *Ibid.*, 126.

nobility of matter that reaches towards the heavens. The image makes a visual analogy, linking the structure of these holy buildings and the properties of fire, which is of earth and yet is discussed as being more spiritual than other elements. The architectural metaphor, and its emphasis on exaggerated rooflines, could also have deeper philosophical and cosmological meanings. In his text, Bartholomaeus describes the firmament, which may be what is represented through the orb, as the “roof” that protects earthly matter from the elements that surround it. It is impossible to understand the meaning of this complex image and its architectural theme without being familiar with the content of the text. Indeed, even those who have read Bartholomaeus’ work must spend time in analysis and exegesis to formulate a hypothesis. We can imagine multiple meanings for this image, and it is impossible to say whether the designer of the miniature intended viewers to see parallels between church spires and the divinity of fire, or rooflines and the nature of the firmament. We can, however, say with confidence that the image was meant to be interpreted simultaneously with the analysis of Bartholomaeus’ text, perhaps by alternating perceptual experience back and forth between text and image as the reader progresses through the various entries in the book.

In the case of the illustration for Book XI, on the properties of the air and meteorological phenomena, great care has been taken to represent the more subtle content of the text rather than treating the subject in an allegorical sense (Figure 53). Most other contemporary French manuscripts represent the element of “air” metaphorically, through the depiction of a sky or a personification of the wind, often with a group of figures examining it contemplatively. But the element of air is the topic of only the first chapter of Book XI as it is written by Bartholomaeus. In contrast to the other illustrators, the

artists of BnF fr. 135/6 explore the broader scope of the text by compressing many of the aerial *impressiones* discussed in Chapters 2-16 of the encyclopedia into a single, striking image.³³¹ A careful examination of the miniature reveals the inclusion of many of the phenomena addressed in the text, including, wind, clouds, the rainbow, dew, rain, frost, hail, snow, mist, lightning, and breeze. As is the case with many of the images in this manuscript, there are no figures or signs of human intervention included in the scene. The result is the creation of a tumultuous landscape that communicates an impossibly wide range of weather conditions and their impact on the earth. It is important to note in this image that the collapsing of time and space that occurs within this frame means that it is impossible for the viewer to situate his/herself in this scene in any natural way. The designers of this image have largely rejected naturalizing features, such as the representation of figures that are able to interact within a defined space, that are found in BnF fr. 9141 and other manuscript copies of this text. In my view, the denaturalizing and diagrammatic visual properties of the image of meteorological phenomena make it a striking and cognitively complex image full of inconsistencies and problems. These problems are meant to be puzzled through in the process of visual or mental analysis. The reader is confronted with the complexity and contradictions of weather and its power to influence the earth rather than a static allegory; the artist's skill at visualization assists in the creation of this dynamic cognitive response.

Though the two images noted above are perhaps the most unusual, the rest of the illustrative program of 135/6 also constitutes a significant departure from those associated with Charles V's translation of *On the Properties of Things*. One of the most

³³¹ Ibid., 130.

salient differences is that the human presence in the images is not as strong.³³² In the case of BnF fr. 135/6, there is a preference for images that are closer to landscape paintings. In other manuscripts, illustrations of minerals, for example, most often show merchants selling or evaluating precious stones (as seen in Figure 54), or labourers extracting them. But in fr. 135/6, the stones are represented in an uncut state in nature, making the image almost indistinguishable from that illustrating *De montibus* (Figures 55 & 56). In the process, the focus on the natural origins of minerals, rather than the sophisticated appreciation of precious jewels moves the action out of the context of the court. While it is impossible to say with any certainty, this increased interest in the representation of nature for its own sake may serve as further indication of a changing audience and a rising enthusiasm for secular exegesis.

An interest in the representation of landscapes and nature is not usually considered to be a significant priority in late-medieval art. It is likely that, rather than representing a new genre altogether, these images have evolved from the thinking figure images discussed in the last chapter. They look markedly different from earlier illustrations, but in fact, these are schematics that focus on the mental images of the thinking figures and render them more epistemically rich. The removal of figures and the focus on objects removes the sense of narrative from the scene. Rather than being second-hand representations of the thoughts of others, we can understand this kind of picture as a *tool for thinking* about the represented “things.” Because these are not stories, each image is, as Bender and Marrinan say of diagrams, “situated in the world like an object.” It therefore helps to transmit the constantly evolving intellectual world of the

³³² The closest copy in the French national collection is fr. 218 but it also shares similarities with BL Cotton MS.Aug.A.VI (Figure 41).

receiver.³³³ The striking nature of these images, their distance from the material world of the viewer, and the fact that they require analysis makes them reminiscent of the kinds of mental pictures described by de Nie and Noble, who write that such an image “‘reverberates’ in the reader’s mind, generating, through multiplying associations and connotations, further related images which induce experiences analogous to their inherent dynamic patterns.”³³⁴

The Diagram and the List

This manuscript also includes a category of images that can be described as “sampling” or “list-like” in appearance and content. These miniatures function by showing either single examples of things in series, or an array of related examples combined in a single miniature. In so doing, they imply abundance and the existence of a multiplicity of specimens beyond those featured in the image. In BnF fr. 135/6, the most obvious visual list appears as an unusual number of images that focus on different types of birds and other sky creatures, including insects and bats (Book XII, *De avibus*). This pictorial emphasis suggests that the patron may have had a special interest in the topic, as it is a rare example of a French Bartholomaeus manuscript to include a number of small images that are directly tied to individual entries in the encyclopedia.³³⁵ This visual approach is appropriate and not particularly surprising given the goals of Bartholomaeus’ text. Described as an “inventory of the Lord’s Creation,” it functions by describing the

³³³ Bender and Marrinan, *The Culture of Diagram*, 28.

³³⁴ de Nie and Noble, eds., *Envisioning Experience*, 1.

³³⁵ This feature is also found in Jean de Berry’s copy of *On the Properties of Things*, Reims MS 0993 (c. 1416).

seemingly limitless properties, or incidental features, of a vast number of things.³³⁶ Even the title of the book, *On the Properties of Things*, imbeds a sense of limitless enumeration, suggesting to the reader that the properties listed in the text stand in for that which has been edited out through simplification and compression.

The phenomenon of textual listing played an important role in medieval writing, from the liturgy, to the epic, to the bestiary, and lists of *mirabilia*.³³⁷ One recent example of scholarship on this topic is Umberto Eco's, *The Infinity of Lists*, within which Eco positions the writing of early compendia as a search for an organizational structure that would contain the abundance of information that exists in the universe.³³⁸ As a list, it imposes a natural, locational order on materials (information, objects, texts) that should be *remembered*. The hope was that readers familiar with mnemonic texts and technique, would see that placing the various things of the world in particular "spaces" would help him/her to remember the content of the book. The reader may also feel a sense of pleasure in seeing evidence of the bounty of the universe. Of the medieval encyclopedias (focusing on the earliest manifestations), Eco explains

these encyclopedias presumed (or still looked for) a form, also because their organization had a *mnemonic function*: things in a given order help us to remember them by remembering the place they occupied in the image of the world. But this happened, if it happened, only for highly specialized readers. The others were probably, and are still, fascinated by the list of *mirabilia*.³³⁹

³³⁶ Walter Cahn, "Medieval Landscape and the Encyclopedic Tradition." *Yale French Studies*, Special Issue: Contexts: Style and Values in Medieval Art and Literature (1991): 11-24, 14. See also, Christel Meier, "On the Connection between Epistemology and Encyclopedic Ordo in the Middle Ages and the Early Modern Period," in *Schooling and Society: The Ordering and Reordering of Knowledge in the Western Middle Ages*, ed. Alasdair & Michael W. Twomey MacDonald (Leuven, Paris & Dudley, MA: Peeters, 2004); Robert L. Fowler, "Encyclopaedias: Definitions and Theoretical Problems," in *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress*, ed. Peter Binkley (Leiden, New York, Köln: Brill, 1997), 18.

³³⁷ Umberto Eco, *The Infinity of Lists*, trans. Alastair McEwan (New York: Rizzoli, 2009), 152-156.

³³⁸ *Ibid.*

³³⁹ *Ibid.*, 155.

The list, then, is associated with the mental process of creating a locational order (in the mind or in the book), but also the larger audience experience of wonder and the delight that comes from being able to see the abundance of the universe and access individual items at leisure. Both of these operations are cognitively significant. The carefully ordered list gives the impression that the world is manageable and comprehensible.

When it comes to the discussion of the *visual* manifestation of lists, Eco suggests only that there are

other figurative works that make us think that what we see within the frame is not all but only an example of a totality whose number is hard to calculate.... Think of Pannini's *picture galleries*: they are not intended to represent merely what is shown but also the rest of the (indefinitely large) collection of which they are only an example.³⁴⁰

Later discussions on the topics of ineffability and the “rhetoric of enumeration” in Eco’s work suggest that visual lists use strategies such as repetition and overlapping to present the “effect of abundance,” the exhibition of variety, and the presentation of select examples in order to infer the existence of others.³⁴¹

Also noted in the discussion of list-like qualities is the Cabinet of Curiosities, those collections of objects that have had such an important impact on the way we think about the individual’s relationship to knowledge and the universe in the early modern world. It should be noted that this is my second reference to structural and theoretical similarities between encyclopedic images and Cabinets of Curiosities. The parallel has particular resonance here if we can imagine the function of the encyclopedia as a

³⁴⁰ Ibid., 38-39.

³⁴¹ Ibid., 44.

presentation of an abundance of information, isolated from its worldly context, that is ready to be curated by the reader. Eco suggests that this is enough to indicate that we are thinking about something large enough to be almost unrepresentable, “leaving the reader to imagine the rest.”³⁴² Even though these images are not diagrammatic, they are connected in their ability to highlight the *semantic gaps* in encyclopedic knowledge that must be puzzled through in order to use the text.

In the case of BnF fr. 135/6, the pictures that “list” the creatures of the air are significantly smaller than the rest of the miniatures in the manuscript, but even so they are painted in astonishing detail. One of the most magnificent is the tiny depiction of five mosquitos, which hover delicately above a hilled landscape (Figure 57). The wings of these creatures are semi-transparent and highlighted with gold, with the kind of delicate touches that an artist might use when rendering a holy figure’s garments. The image of a large bat, which flies above a tiny but detailed landscape with trees, rocks and distant architecture, is similarly remarkable (Figure 58).

Though executed with a high degree of sophistication, none of these miniatures draw our attention to the allegorical significance of the creatures as discussed in the text. Likewise, there are few features that could help a curious reader to distinguish one species of bird or insect from another, as we might expect to find in modern encyclopedias with a stronger focus on natural history. While the visual characteristics of the image of the eagle (Figure 59) are significantly different from those of the falcon (Figure 60), the birds are not placed in poses or shown pursuing the types of activities that would make it possible for the viewer to compare the two types meaningfully. The

³⁴² Ibid., 49.

eagle is represented in a way that is stiff and emblematic, presented in near profile against a simple background. There is, appropriately, visual emphasis on the eagles' oversized talons and beak, and its general aspect is one of iconic, otherworldly power. But there is nothing that speaks to the content of the text, which lists its "keen vision, its nesting place, manner of feeding its young, several magical stones associated with it, and the medicinal value of its gall."³⁴³ The falcon, on the other hand, is much more subtly and realistically painted, and positioned against a complicated land/cityscape. Rather than being schematized, the falcon is portrayed in mid-dive and about to pick up a small rabbit. This action is the main focus of the image and is tied well to Bartholomaeus' description of the hunting bird. Both images relate to the text in some way but not consistently. The reader is placed in a position where s/he must compare text and image to determine the nature of the connection on an individual basis.

There were, it appears, at least two artists involved in the production of these small vignettes and it is impossible to find a consistent strategy regarding illustrative priorities, aside from the establishment of a somewhat regular shape and size of the format. Though some representations are very likely to be the product of observing birds in the natural world, there are no visual clues that tell us which creatures, like the bat, are of the "real world." This inconsistency is mirrored in the text of this book, which is described as "muddled" in terms of both its understanding of birds themselves and the references to the authorities who write about them.³⁴⁴

³⁴³ Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 137.

³⁴⁴*Ibid.*, 136.

Comprehensive Images

As discussed in Chapter One, this visual “list” of bird and insect types is prefaced by a larger image placed at the beginning of the book that describes the properties of thirty-eight creatures of the air, as described by Aristotle (Figure 3). This image, in contrast to the small works on single bird types, represents a number of flying creatures situated naturally in a complicated landscape. The birds in the picture occupy a range of habitats including the air, land, and two pools of water, flooding the composition and filling the space. They are organized into different groupings that range from the single swan, to the pair of cranes, to the family of ducks. Each of these representational features highlight the variety and bounty of the list, though through a different representational mode. Here, we are given the same sense that beyond the frame is found further complexity and plenty. This sense of endlessness, paired with the smaller and more individualized portraits of creatures, effectively communicates that Bartholomaeus’ text deals first with all birds in their variety, and second, the natures of specific creatures.

The large images at the beginning of Books XVII and XVIII, which deal with plants and the nature of animals, respectively, are similar in composition to the miniature representing the range of birds (Figures 61 & 62). The paintings of flora and fauna feature unusually full and cluttered frames showing plants or animals in a semi-natural environment. The image representing plants includes a range of trees, shrubs, small plants, flowers and a grassy ground. There is little interest in distinguishing one type of flora from another or to show the distinguishing features of particular species. All of the plants, despite their different sizes, look somewhat similar: lush, verdant and decorative. Though the book is, in part, an herbal based on Dioscorides and Matthaeus Platearius,

there is no sign from the images that the plants should be considered medically useful.³⁴⁵

The artists have depicted what is essentially a luxurious garden space. The use of patterned repetition and the fact that the most outward trees extend beyond the format give the viewer, once again, the sense that the frame could be repeated indefinitely. What is important is not that the viewer should be able to identify, based on the illustration, the types of plants that would be suitable for treating a particular medical condition, but that there are *many* plants.

The image of animals on folio 135 presents an almost chaotic interest in the presentation of variety. In this composition the artist has included several land mammals, a crocodile, another mysterious amphibious creature, and a dragon. For the most part, these animals do not interact with each other in narratively significant ways. They nearly fill the landscape and pile on top of each other forming curving, organic lines. Like the others, it is a useful image for communicating that the information contained within the text is plentiful and accessible at many points according to the pleasure of the reader. The wild profusion contained within text and image represents both the listing structure of the book and the array of animals that is *not* illustrated.

BnF fr. 135/6 makes use of many different aesthetic strategies in its illustrative program. To this point, I have identified the use of gapped, diagrammatic images, striking visual puzzles, visual lists, and comprehensive images that display abundance. Each of these modes of representation communicates something about the content of Bartholomaeus' text and the structure of the encyclopedia (e.g. the images can show what information is contained in each book, the organizational principles of the text, the

³⁴⁵ This is very unusual as medieval herbals often focus on the presentation of the features that make a particular element useful to humans. Seymour, *Bartholomaeus Anglicus and His Encyclopedia*, 183.

compressed nature of the book's content, and the world of information implied by the sampling or listing nature of the text). More than reflecting the text, however, the aesthetic choices made by the manuscript's artists and designers help to shape the ways that readers and viewers engage with the content of the book. In the following section, I follow this line of inquiry into the relationships between diagrams and encyclopedias by moving from the discussion of one particular manuscript to a broader analysis of the connections between diagrammatic aesthetic forms and the cognitive work of encyclopedias.

(ii) Diagrams and Encyclopedic Structure in Pre-Modern Europe

Diderot and the Potency of the Encyclopedic Aesthetic

An important part of getting to the meaning of the complex range of images found in French Bartholomaeus manuscripts, especially BnF fr. 135/6, involves understanding the value of *diagrams* in collections of knowledge throughout time. This is a difficult and necessary task because, though diagrams have recently become an important topic in image scholarship, their definitions and parameters are generally tied to *modernity*.³⁴⁶ Thus, a framework that values medieval theories of cognition and the mnemonically significant strategies of the collection, compression, and division of knowledge, as discussed in Chapter One, is needed to build on the literature that studies scientific and medical images, cartography, and cosmological diagrams. The most relevant study on the diagrammatic form, already cited in previous chapters, is Bender and Marrinan's *The Culture of Diagram*, a book that primarily investigates the images found in Denis

³⁴⁶ See, for example, Bender and Michael Marrinan, *The Culture of Diagram*; James Elkins, "Art History and Images That Are Not Art," *Art Bulletin* 77, no. 4 (1995); James Elkins, *Visual Studies: A Skeptical Introduction* (New York: Routledge, 2003).

Diderot's and Jean le Rond d'Alembert's *Encyclopédie*.³⁴⁷ Significantly, the authors describe the encyclopedia itself as “an artifact of diagrammatic knowledge,” an idea that seems to confirm the importance of this representational mode, even in pre-Enlightenment compendia.³⁴⁸

Though Diderot's *Encyclopédie* has different knowledge goals than Bartholomaeus', the images in the eighteenth-century *Encyclopédie* have several features in common with the manuscript images studied in this dissertation. For example, they incorporate both allegorical features that show the encyclopedia's content in use, and diagrammatic features that separate significant “parts” for deeper analysis. The plate illustrating agricultural labour (Figure 63), for example, displays a narrative portion on top, in which farm equipment is pictured in active use. This portion of the composition takes up more than two-thirds of the format and the greatest expanse of this is dedicated to landscape elements that do not have obvious epistemic functions. The tableau does include labeled figures and representations of the diagrammed implements in action, but considerable effort has also been made to set the scene. It is atmospheric rather than strictly illustrative. But rather than attribute this top section to a desire to further explain or add decoration to the text, we can say that it shows the benefit and utility of the implements in the natural world. It can be understood as evidence for the truthfulness of the diagrams below. The agricultural labourers are not likely meant to be models for the reader like the thinking figures in the Boucicaut manuscript, but they still demonstrate knowledge in action. Indeed, while the courtly astrologers and physicians that feature in many Bartholomaeus manuscripts are clearly experts who could attest to the validity of

³⁴⁷ Bender and Marrinan, *The Culture of Diagram*.

³⁴⁸ *Ibid.*, 54.

the book's astronomical and medical content, the humbler figures in Diderot's book are equally appropriate authorities on the mechanical arts they demonstrate.

The smaller diagrammatic section, in which two of the tools have been removed from the scenic story above and displayed for our inspection, presents the viewer with a secondary viewpoint. It also, when coupled with the scene above, visually alludes to the hierarchical and "nested" encyclopedic structure I have discussed in relation to the Bartholomaeus manuscripts. The doubling, and use of corresponding labels between separate parts of the image and text, reflects the structure and priorities of the encyclopedia through a kind of visual cross-referencing. As Bender and Marrinan argue, the complexity of this type of representation and its diagrammatic, text-mirroring qualities call for a process of "highly interactive decipherment."³⁴⁹ The reader must analyze multiple representational modes, including text, various notational forms and a number of image-types, in order to understand the meaning of an entry in the book. Though I do not claim that the images in Diderot's work were directly inspired by the diagrams found in the manuscript case studies under investigation in this dissertation, they appear to have their roots in earlier diagrammatic structuring processes, a topic that requires further investigation at a later date.

When defining the illustrative strategies at work in such images, Bender and Marrinan define the operating aesthetic as "*encyclopedic*," but many of the characteristics they describe as being key to the diagrammatic mode are too specific to be useful across all time periods and cultures that produced compendia. Bender and Marrinan write, for example, that diagrams "tend to be reductive renderings, usually executed as drawings,

³⁴⁹ Ibid., 42.

using few if any colors; they are generally supplemented with notations keyed to explanatory captions, with parts correlated by means of a geometric notational system.”³⁵⁰ Their text also offers many arguments about the connections between the use of diagrams and the scientific reliance on instruments that extend the abilities of human perception (viz., “the growing importance of instrument-like perception in eighteenth-century culture”), claims to scientific objectivity, the questioning of linear perspective, and a new interest in geometry.³⁵¹ They write that in the eighteenth century

instruments and tools of analysis expanded the horizons of knowledge beyond the range of the human sensorium. The dominant mode of visualization, established since the Renaissance, placed an object in space under the gaze of a precisely positioned observer. The *Encyclopedia* [of Diderot and d’Alembert] registers how much description already was fragmented by the mid-eighteenth century, in part because new instruments could see farther, in more detail, or with a finer grain than human beings, and generated data sets demanding new formulas of presentation.³⁵²

But it is clear from my examination of BnF fr. 135/6 that diagrams and other types of epistemic images, with aesthetic and cognitive similarities to those in Diderot’s encyclopedia, existed in abundance before the modern era, thus raising important questions for future researchers. For this reason, I suggest that the diagrammatic mode of presentation, and its relationship to the encyclopedic genre, should not be explained simply as a reaction against the construction of space in the renaissance, or connected to specific scientific advancements.³⁵³ These visual strategies are much older and find their roots, at least in part, in the structures of the encyclopedic text from earlier times and the cognitive theories that support it.

³⁵⁰ Ibid., 7. See also Nelson Goodman, *Languages of Art: An Approach to the Theory of Symbols* (Cambridge: Hackett Publishing, 1976).

³⁵¹ Bender and Marrinan, *The Culture of Diagram*, 149.

³⁵² Ibid., 198.

³⁵³ Ibid. See also Lorraine Daston, *Objectivity* (New York: Zone, 2007).

My framework of analysis, therefore, suggests that each text, with its unique set of text-image relationships, must be studied in its own specific circumstances of production and reception. One of the goals of future research in this area should be to untangle aesthetic features that are connected to a particular time and place from those that consistently resurface throughout the history of illustrated encyclopedias. While I do not claim that there is one single trans-historical encyclopedic aesthetic that can be authoritatively identified, I do argue that when defining encyclopedic images in general, we should categorize aesthetic strategies in terms of their *contributions as cognitive shaping-tools* while at the same time noticing those features that represent historically-specific stylistic choices.

I include these references to the interpretive problems caused by Bender and Marrinan's desire connect to the emergence of diagrams with the emergence of better information because this kind of argument is a testament to the *affective power* of diagrammatic images. Part of defining the encyclopedic aesthetic is acknowledging its potency. Pictures with visual properties that foreground the display of knowledge, science, or authoritative information inspire us to believe in their authority. Just as David Freedberg, in *The Power of Images*, argues that some religious images have a certain "supernatural charisma" based in part on formal qualities that give them potency and encourage belief in the viewer, there is an equivalent epistemic phenomenon at work in diagrammatic images.³⁵⁴ A framework for understanding diagrams in Bartholomaeus manuscripts, and in general, must hinge on the notion that such images are convincing and have a similar potency, not because they are full of up-to-date knowledge, but

³⁵⁴ Freedberg, *The Power of Images: Studies in the History and Theory of Response* (Chicago: University of Chicago Press, 1991), 110.

because they are information-rich, require decipherment, and have long associations with authoritative medical, cosmological, and philosophical texts. Developing Freedberg's theory of religious responses to images, I suggest that the power of these encyclopedic visualizations rests in the cognitive acts and range of mental associations they provoke. The encyclopedic image functions, as Curschmann describes in "Imagined Exegesis: Text and Picture in the Exegetical Works of Rupert of Deutz, Honorius Augustodunensis, and Gerhoch of Reichersberg," as a *tabula*, "a school figure designed to initiate or structure discussion in various imaginable didactic contexts; not to promulgate any particular lesson on its own, but *waiting to be reactivated*, as it were."³⁵⁵ In my view, therefore, diagrammatic images are so powerful because they convince us of their potency while presenting us, as active and historically situated viewers, with *multiple avenues* for interpretation. Newly discovered, authoritative data does not demand "new formulas of presentation," as Bender and Marrinan argue; diagrams instead, as authoritative formulas of presentation, help to *generate* this new data within the mind of the reader-viewer.³⁵⁶

Still, despite the differing historical moments that are addressed, Bender and Marrinan's definition of the diagrammatic aesthetic as it relates to Diderot reflects many of the manuscript images studied in this dissertation including, perhaps surprisingly, the narrative images found in BnF fr. 9141. They are described as images that (i) do not embrace a single "point of reference,"³⁵⁷ (ii) do not rely solely on human perceptual abilities and, for these reasons, (iii) emphasize a certain open-endedness. Indeed, this

³⁵⁵ Michael Curschmann, "Imagined Exegesis: Text and Picture in the Exegetical Works of Rupert of Deutz, Honorius Augustodunensis, and Gerhoch of Reichersberg," *Traditio* 44 (1988): 145-169, 161. (Italics mine)

³⁵⁶ Bender and Marrinan, *The Culture of Diagram*, 149.

³⁵⁷ *Ibid.*, 154.

sense of openness and fluidity is one of the key qualities I have tried to highlight in demonstrating the value of the encyclopedic mode of thinking in the pre-modern era. We know that fifteenth-century lay readers embraced forms of text that left room for questioning and analysis, and images like some of those found in BnF fr. 135/6 show us *visual parallels* that are full of puzzles for the active reader to think through. There are social benefits to these processes of reading and thinking that have been discussed throughout this dissertation.

The real strength of the analysis in *The Culture of Diagram* is the semantic classification of diagrams, which works across periods and can help us to account for diagrammatic images in a range of contexts, from scientific treatises produced during the Enlightenment to fifteenth-century devotional works. One of the characteristics of both the medieval and modern diagrammatic aesthetic is the use of visual cues, including numbers, labels, geometric arrangements, and deliberately “unworldly” or nonsensical elements, to imply that decipherment needs to take place.³⁵⁸ In other words, their visual properties are designed to convey that they are “information-rich” and that the reader must invest time and draw on developed visual literacy to “read” the content.³⁵⁹ This cognitive investment, in turn, is part of synthesizing the book’s content and gives the viewer tremendous agency with regard to the images. There is power in the task of interpreting the disparate information. The viewer who can properly decipher a diagram must have some knowledge of both the content depicted and the conventions associated

³⁵⁸ Ibid., 28.

³⁵⁹ Ibid., 19.

with the representational scheme. The receiver's role, then, becomes bound up in the central function of diagrammatic images as knowledge “conductors.”³⁶⁰

To further explain how such images function, we can cite Bender and Marrinan’s argument that “A diagram is a proliferation of manifestly selective packets of dissimilar data correlated in an explicitly process-oriented array that has some of the attributes of a representation but is *situated in the world like an object*.”³⁶¹ This last notion is later reiterated through the statement that diagrams are “closer to being things than to being representations of things.”³⁶² The miniatures in BnF fr. 135/6, for example, are not simply representations of external phenomena that show the viewer thinking about the properties of things in the natural world. Instead, they are information technologies that facilitate dynamic thinking processes. They are not intended to be imitative visions of the world that we perceive with our senses, but instead use those senses to encourage the reader in the process of mentally dividing and structuring information.³⁶³ Further, according to this framework, “diagrams de-naturalize things to open up spaces for creative misuse.”³⁶⁴ Schematizations and abstractions leave *gaps* in which the receiver can improvise thoughts related to the content of the text. The presence of this open, imaginative space is well suited to the desires and reading practices connected with this fifteenth-century audience.

This emphasis on the independent intellectual role of images is repeated, though in different terms, in Barbara Maria Stafford’s book *Echo Objects: The Cognitive Work*

³⁶⁰ Kuchler, “Materiality and Cognition,” 15.

³⁶¹ Bender and Marrinan, *The Culture of Diagram*, 7 (my italics).

³⁶² *Ibid.*, 21.

³⁶³ *Ibid.*, 33.

³⁶⁴ *Ibid.*, 24.

of Images. Her analysis leads to the conclusion that the cognitive function of images is related to their ability to “‘hold’ mental content in an external form.”³⁶⁵ While not specifically about diagrams, Stafford’s focus on the way images can hold, contain, and echo information means that it deals with many of the representational strategies that are important features of the images discussed in my argument. Cognitively demanding information or theories, such as the nature of form and matter in BnF fr. 135/6 (Figure 42), *require* complex, “inlaid” images that represent the intricacy of a given problem.³⁶⁶ Two of the tactics that are related to the diagrammatic, as discussed here and in the Bender and Marrinan text, are the emblematic and the schematic. The main function of the first is to create images that are representations of complicated thoughts and the second is to “visibilize the compressive structure of attentive thought.”³⁶⁷ While the Boucicaut manuscript may have demonstrated social acts of thinking, BnF fr. 135/6 makes a visual gesture towards the cognitive world of the receiver. Here image and text exist on similar cognitive wavelengths—not only at the level of content, but also through the physical structuring devices of collection, compression, and division.

Multiple, Divisible and Competing Information

As my analysis suggests, the need for certain kinds of illustrative strategies is contingent upon epistemic content that contains multiple, divisible, and sometimes competing aspects.³⁶⁸ In general, the overwhelming informational load expected from epistemic or thought-like images requires the seemingly opposing features of (i) the compression of a

³⁶⁵ Stafford, *Echo Objects*, 28.

³⁶⁶ *Ibid.*, 44.

³⁶⁷ *Ibid.*, 21.

³⁶⁸ *Ibid.*, 44-45.

wide range of information into a single, small format, and (ii) the division of this into discrete parts. These tactics are directly linked to the kinds of classical rhetorical strategies used to structure Bartholomaeus' work, as discussed in Chapter One. The notion of "compression," which is perhaps the most important of these strategies for understanding some of the more mysterious images in BnF fr. 135/6, is most often discussed in connection with the culture of emblems in early modern prints.³⁶⁹

Nevertheless, some of their features reflect ways we understand the diagrammatic in the pre-modern world. Like Bender and Marrinan, Stafford links the creation of "denaturalized" images with increased possibilities for capturing attention and provoking thought. This is rooted in both cultural and biological influence. Stafford writes, underscoring similar points to Bender and Marrinan, that

Isolating individual components from their customary background, or dissociating them from some overall context serves to exclude other data. This focusing procedure highlights images that would otherwise slip by our attention or be absorbed unthinkingly. When plucked from a narrative flow, they become salient objects for reflection. This dual process of first prying apart and then patching together into a novel unit yields ill-sorted and fantastic objects demanding to be noticed and thought about. Because the extrapolated items appear so unnatural as to be shocking (i.e., nonmimetic, not imitating or resembling any one thing in the world) they stimulate our imaginative powers of inference. More than that, they change the strength of our synaptic connections since their puzzling appearance counters habituation and augments sensitization.³⁷⁰

The aesthetic strategies of schematization, and the isolation of objects or concepts from a narrative, are not incidental or strictly rhetorical devices (though they could certainly fill that function as well). Diagrammatic methods of knowledge visualization inspire, or even require, focused intentional thought on the part of the receiver. The novelty of these

³⁶⁹ See, Daniel S. Russell, *Emblematic Structures in Renaissance French Culture* (Toronto: University of Toronto Press, 1995).

³⁷⁰ Stafford, *Echo Objects*, 46.

images, or the fact that they do not resemble anything seen in nature, requires cognitive engagement if decipherment is to take place. This process, therefore, has at its root, information management and the creation of the type of “striking image” necessary to the practices of the classical and medieval arts of meditation and memory.³⁷¹

The strategy of division is very important to many of the images found in fr. 135/6 as this rhetorical device is essential to the purpose of the encyclopedic text. Stafford explains the impact of visual allusions on the process of divisions in terms of comparison and combination. These strategies allow the artist to present several related but separate ideas in one pictorial “world” and they therefore help us to compare different possible states of things.³⁷² They force the viewer to seek out meaningful patterns and engage within the space of the striking image. This strategy makes great demands on the viewer, who must deliberate through the visual representation in order to absorb the content and also interrogate their own mental process of compilation and division.

The structural and rhetorical principles of *collectio* and *divisio*, discussed more thoroughly in Chapter One, have a significant relationship with the diagrammatic and list-like modes of representation, both in general and with specific regard to the Bartholomaeus manuscripts. Considering the ways in which mnemonic theories in antiquity and in the medieval period deal with mental pictures, we can understand images as “repositories of memory” just like the encyclopedias that contain them.³⁷³ It is relatively easy to see points of convergence between the rhetorical and mnemonic

³⁷¹ Peter Parshall, "The Art of Memory and the Passion," *The Art Bulletin* 81, no. 3 (1999): 456-472.; Mary Carruthers, *The Craft of Thought: Meditation, Rhetoric, and the Making of Images, 400-1200*, Cambridge Studies in Medieval Literature (Cambridge: Cambridge University Press, 1998).

³⁷² Stafford, *Echo Objects*, 46.

³⁷³ Nancy Netzer and Virginia Reinburg, eds., *Memory and the Middle Ages* (Chestnut Hill: Boston College Museum of Art, 1995), 3.

principles of collection and division and the diagrammatic principles of division and compression, as outlined by Bender, Marrinan and Stafford.³⁷⁴ The “nested” structure of the encyclopedia that is described by Elizabeth Keen,³⁷⁵ resonates rather strongly with Stafford’s argument that cognitively complex ideas require “inlaid” images.³⁷⁶ They are “thought-like” and “conductive,” but the forms of thought they inspire resonate specifically with encyclopedically structured modes of cognition as they existed in the middle ages.³⁷⁷

In BnF fr. 135/6, images reflect something about the reading practices of an engaged reader/thinker. As mirrors of potential mental pictures, they are images that have been “plucked from a narrative flow“ that was once provided by BnF fr. 9141’s thinking figures.³⁷⁸ As purposely “gapped” fragments and lists-like displays of abundance, they imply and stand in for the rest of the world inventory. The images in fr. 9141 and similar copies show readers generating directed thoughts in the form of naturalized, external representations, but the more heavily epistemic renderings in fr. 135/6 focus more strongly on the ways that these mental representations work. These images, whether narrative or diagrammatic, do more than what they have traditionally been credited with through the scholarly focus on their explanatory and material value.³⁷⁹ They reflect the

³⁷⁴ Bender and Marrinan, *The Culture of Diagram*; Barbara Maria Stafford, *Echo Objects*.

³⁷⁵ Elizabeth Keen, *The Journey of a Book: Bartholomew the Englishman and the Properties of Things* (Canberra, Australia: Australian National University Press, 2007) 7 & 155.

³⁷⁶ Stafford, *Echo Objects*, 44.

³⁷⁷ *Ibid.*

³⁷⁸ *Ibid.*, 46.

³⁷⁹ Lucy Freeman Sandler, *Omne Bonum: Fourteenth-Century Encyclopedia of Universal Knowledge*, *Studies in Medieval and Early Renaissance Art History* (London: Brepols Publishers, 1996); Lucy Freeman Sandler, "Encyclopedia" in *Studies in Manuscript Illumination 1200-1400* (London: The Pindar Press, 2008), 386-408.

epistemic value systems expressed in Bartholomaeus' work and other texts on cognitive processes.

(iii) Expanding the Model: Cognitive Structures in Other Late-Medieval Illustrated Texts

If, as I have asserted, encyclopedism is a way of thinking that suited the cognitive patterns and reading strategies of Bartholomaeus' fifteenth-century French audience, it stands to reason that its traces may be seen outside the context of encyclopedic manuscripts. While the full extent of this phenomenon must await further research, my framework for understanding aesthetic strategies in relation to forms of complex, encyclopedic information management helps us to better understand other medieval images in which diagrammatic features and/or information density are emphasized.

Throughout the middle ages, diagrams were most often found in professional or scholarly texts. But by the later middle ages, the educated lay readers studied in this dissertation were beginning to patronize and appropriate texts that were composed with university or ecclesiastical audiences in mind. The lay interest in the vernacular adaptations of Bartholomaeus' *On the Properties of Things* is an example of this shift in patronage patterns. Significantly, as this lay audience began to consume what were traditionally professional texts, the epistemic images that traditionally accompanied them migrated into other types of books associated with elite, aristocratic readers. Books of Hours and other types of prayer books, for example, became something like compendia themselves through intense personalization and idiosyncratic additions like diagrams. In a phenomenon that mirrors the material translation of encyclopedic texts at the time of vernacularization, diagrammatic images also began to be rendered with increasing

elegance, sophistication, and the use of expensive materials as they enter this lay, courtly context.

The most famous example of a highly aestheticized scientific or technical illustration inserted into a luxurious prayer book prepared for elite enjoyment is found in *Les Très Riches Heures du Duke de Berry* (Chantilly MS 65, Figure 10). This famous devotional book, illustrated by the Limbourg Brothers between 1410 and 1416, includes an image known as a “Zodiac Man” or “Astrological Man,” a type of image that is normally seen in the tool kits of medieval surgeons and physicians. In this context, however, it has been transformed into a highly resonant image of superior artistic quality.³⁸⁰

Before the famous image by the Limbourg Brothers was created, similar Zodiac Man images were produced throughout Europe, and the majority of these are found in the context of encyclopedias (for example, Figure 64), as well as medical and health-related treatises (Figure 65). Though the epistemic content remains consistent, the aesthetic qualities of the images are distinct depending on the context of each manuscript and its production conditions. The more practical images, which may originally have accompanied a surgeon on a visit to a patient in the form of a belt book (see, for example Brit Mus. MS. Sloane 2250, Figure 65), tend to be schematic in their treatment of figures. These practical tools were made using less expensive materials, include many more “indicator” features such as labels and arrows, and are placed in close proximity with textual explanations. These types of images do not, evidently, have the production of aesthetic pleasure on the part of their audience as their primary goal. Instead, we can

³⁸⁰ Harry Bober, "The Zodiacal Miniature of the *Très Riches Heures* of the Duke of Berry: Its Sources and Meaning," *Journal of the Warburg and Courtauld Institutes* 11 (1948): 1-34.

imagine that their users were interested in the communication of information and convincing patients that the owner of the image was informed and qualified. This emphasis on diagrammatic or schematic elements leads Harry Bober to describe the differences between professional and aristocratic examples of Zodiac Man images with claims that

Unlike the uninspired, often repulsive and repetitious manikins in the hack professional medical works, here [in the *Très Riches Heures* miniature] the same given material, in the hands of a creative artist, could be merged to form a new and entirely original iconographic and aesthetic synthesis.³⁸¹

The Zodiac Man motif, in a professional medical work, is most often characterized by a schematic representation of a single male body. Though the bodies on display in BnF fr. 135/6's *De anima* and *De hominis corpore* illustrations (Figures 49 & 50) might be described as more naturalistic in terms of their modeling than MS. Sloane 2250, they exploit the use of a similar open pose that helps the figures to display their physical characteristics. Whether naturalized or schematic, their gestures expose as much of the body as possible and invite the viewer's examination. The miniatures also share the key, diagrammatic strategy of presenting simplified figures that are reduced to outline in order to emphasize specific elements, most notably the shape of the bodies and the relationships between their parts. Such astrological images involve the depiction of a schematic body, which is overlaid with the signs of the zodiac in a specific configuration, beginning with Aries perched on the top of the head and continuing to Pisces at the feet of the figure. The theory governing the placement of these symbols revolves around the

³⁸¹ Ibid.

idea that the various parts of every human body are governed by these signs.³⁸² The knowledge surrounding this connection between the zodiac and human health has a practical use because it was believed when the moon is in the house of one of the astrological signs, it is unwise to make any kind of intervention on its related organ or corporal region. This principle is based on the idea that, since the moon has an observable influence on the tides and other fluids, the humours of the body should likewise respond to its power.³⁸³

Having access to this kind of information gave important authority to the individual who was capable of understanding and using it, meaning that the visual literacy required to interpret the diagram was associated with other types of skills. This, I argue, is because command over this information allows the practitioner to make decisions based on authoritative knowledge. Specifically, the physician or surgeon could use this theory to infer what the outcome of a bloodletting or surgical procedure would be if it were to be completed at a specific time.³⁸⁴ Thus, these skills gave the user a predictive power over the body.

It is certainly true that epistemic images made for wealthy and aristocratic audiences tend to be more polished in appearance, but there were clearly some representational features found in these “hack professional” works that wealthy, lay audiences wanted to incorporate into pieces intended for their contemplation. In the *Très*

³⁸² Sophie Page, *Astrology in Medieval Manuscripts* (London: British Library, 2002), 55-57.

³⁸³ Robert Herrlinger, *History of Medical Illustration from Antiquity to A.D. 1600* (London: Pitman Medical, 1970), 26; Derek Parker and Julia Parker, *A History of Astrology* (London: Oregon Press Ltd., 1983).

³⁸⁴ Parker and Parker, *A History of Astrology*, 54-57; Peter Murray Jones, *Medieval Medicine in Illuminated Manuscripts* (London: The British Library, 1998), 51. It should be noted that other factors could be used to predict the outcome of these procedures, including the belief in certain “black days.” On this, see Stanley Rubin, *Medieval English Medicine* (London & Vancouver: David & Charles Newton Abbot, 1974), 64-65 & 140-42.

Riches Heures for example, the epistemic content of the Zodiac Man miniature, as discussed above, is preserved and displayed with more elegance. But at the same moment that the Limbourg brothers move to render the central figures in a less schematic style, they also reassert the power of the diagrammatic mode through the inclusion of the carefully collected and divided information that frames them. The presence of a computational frame, the elaborate system of rings and notches that encircles the figural group with its complex allusions to astronomy and mathematical calculations, marks the image as a useful tool for calculating important medical data. This results in an image that is certainly attractive but, importantly, it is also cognitively complex, even when compared with its professional predecessors. The aesthetic incorporation of information that is useful for astrological calculation encourages analysis and engagement on the part of the educated viewer.

Jean de Berry, the patron of this Book of Hours, was certainly an educated viewer who was known for his engagement with subjects related to astrological medicine. Indeed, Millard Meiss suggests that the Duke took his regularly scheduled course of phlebotomy seriously enough that he would only risk his fortune by playing dice immediately after undergoing this astrologically informed procedure.³⁸⁵ Meiss has suggested that the intricacy of the astrological data present in both the calendar and the Zodiac Man miniature found in the Duke's most famous Book of Hours indicates that scholarly individuals contributed to the production of the manuscript. The range of technical content, including the calendars and the unfinished map of Rome signals that

³⁸⁵ Millard Meiss, *French Painting in the Time of Jean De Berry: The Limbourgs and Their Contemporaries* (New York: G. Braziller, 1974), 145.

the manuscript was likely planned as a collaborative project involving the Limbourgs, scribes, cartographers, and scholars of medicine and astronomy.³⁸⁶

Despite the convergence of epistemic images and the aesthetics of “high art,” this example shows that the diagrammatic mode remains strongly tied to its authoritative, scholarly roots in the late middle ages. Even through their movement into the world of lay readers, diagrams maintain some of their associations with the scholarly individuals who were once unique in their ability to decode the special language of this type of image. This is no doubt, in part, due to traditional associations between these types of images and learned readers, but the aesthetics of these diagrams also prime the viewer to approach the Zodiac Man image differently from the more sacred miniatures in the Book of Hours. The diagrammatic frame around the Zodiac Man encourages calculation and active decipherment of the thought-like image, while the architectural frames surrounding the devotional miniatures prompt engagement in the narrative of the scene. Both image-types are raised as sites for contemplation, but the mode of cognitive engagement is different.

While the *Très Riches Heures* can never be considered an ordinary Book of Hours, some of its more unusual features can perhaps be better understood in connection with the exploding market for the luxury encyclopedias studied in this text. In turn, examining its Zodiac Man image through my framework for understanding the cognitive roles of encyclopedic images allows us to extend the importance of this miniature. Beyond creating an increasingly aestheticized version of a medical image, the designers and painters used diagrammatic strategies to create a useful tool for thinking. In the case of the *Très Riches Heures* of the Duke of Berry, the diagrammatic elements of this image

³⁸⁶ Ibid., 144. See also Bober, "The Zodiacal Miniature of the *Très Riches Heures*," 20.

could prime the patron for engagement with complex epistemic content, shape the patterns of his thoughts as he calculated astrological information, and perhaps even influence his behaviour around when phlebotomy was performed. The lack of an accompanying explanatory text leaves a series of semantic gaps in which the viewer could insert his own knowledge.

Understanding the cognitive value of images, and interrogating the mechanisms through which their aesthetics can influence the viewer's engagement with epistemic content, deepens our understanding of the ways that texts and images could operate in the lives of medieval people. Beyond appreciating the Limbourgs' Zodiac Man as a professional image that has been superficially updated to appeal to aristocratic tastes through increased naturalism and elegance, we should view it, as the Duke likely did, as a sophisticated mind-extending object. Both the *Très Riches Heures* and the French Bartholomaeus manuscripts studied in this dissertation were made for educated and elite lay patrons who had social goals related to the acquisition and use of knowledge. Their cultural and intellectual values resulted in the creation of manuscripts which included appealingly sensuous images that carry heavy epistemic burdens and encourage the engagement of readers and viewers.

Conclusion

As this work suggests, images play an important communicative role in the two fifteenth-century Bartholomaeus manuscripts studied here, and the specific visual properties of these miniatures help to shape the reading and thinking process of those who use them. The preceding chapters have explored the many different ways that encyclopedic knowledge can be visually mediated, as part of the complex text-image relationships created long ago by the artists, scribes, and manuscript designers in production centres across Europe. The thinking-figure images and diagrammatic representations, which formed part of my analysis, look very different from one another, contain varying degrees of direct engagement with the text, and cast the reader in a different affective position with regard to the encyclopedia's content. But despite these visual differences, they have similar epistemic goals as they model and encourage active modes of reading and thinking on the part of the reader.

In both cases, the illustrative programs are beautifully complex, aesthetically unusual, and worthy of proud display. But while these images would certainly have been showpieces for their owners, we should not let their visual appeal mask their *cognitive functions*. My work demonstrates that Lucy Freeman Sandler's argument that such images can (i) explain the text, (ii) comment on or add to its content, (iii) function as place markers and *aides mémoire*, and/or (iv) raise the status of the information in the book, treats images and knowledge as mutually supporting but distinct entities, while pivotal for its time, now requires further elaboration.³⁸⁷ My research indicates that the

³⁸⁷ Lucy Freeman Sandler, "Encyclopedia," in *Studies in Manuscript Illumination 1200-1400* (London: The Pindar Press, 2008), 387-88.

separation between *looking* and *thinking* neutralizes the epistemic force of such pictures, and I argue that illustrated encyclopedic texts and images are in fact sites that encourage creative acts of invention.

All of the functions that Sandler describes are at work in the images of BnF fr. 9141 and BnF fr. 135/6. In this dissertation, however, I have argued that the images in the French manuscript copies of Bartholomaeus' text have two additional functions specifically related to the visualization of encyclopedic knowledge. The first is that they can act as allegories of thinking in order to communicate something about the way that readers might, or even should, profitably use the book. In BnF fr. 9141, and many other French Bartholomaeus manuscripts, this function manifests as displays of the *social use of knowledge* through conversations between scholars and aristocratic peers. This often takes place in imaginative landscape settings that reflect specific textual components, and my Table of Contents helps readers to study the broad outline of the topics included in Bartholomaeus text.

Stemming from images that indicate active thought through the presence of "thought bubble" motifs, the miniatures guide the reading and thinking processes by *naturalizing mental pictures* and presenting them as pleasurable explorations of the Created world. They model specific cognitive functions by demonstrating *intentio* (intentionally directed, object-centered thought that calls the viewer to create mental representations), and *inventio* (the inventive use of knowledge that, in this case, involves the social creation of new "texts"). Mirroring Corbechon's French prologue and the intellectual values associated with the late-medieval lay audience, the thinking figures

demonstrate that the reader “find[s] pleasure and love in wisdom.”³⁸⁸ For the modern scholar, these images can be taken as extra-textual evidence for the reception of encyclopedias rather than strictly decorative illustrations. If we understand these images as naturalized mental images, representations like those seen in BnF fr. 9141, and manuscripts with similar visual themes, can help us understand the thought-extending nature of diagrammatic images, as seen in fr. 135/6 and later encyclopedias extending into the modern period.

The second way that the miniatures in late-medieval Bartholomaeus manuscripts visualize encyclopedic knowledge is that they sometimes reflect the textual strategies deployed to encourage understanding and memory. Together, images and texts mirror elements of cognition as they were understood in the middle ages. The aesthetic properties used to make this connection include semantic gapping, which calls the reader to participate by finding and filling various lacunae in the content, and the cognitively significant tactics of *collectio* and *divisio*.³⁸⁹ The list-like elements of the illustrative program and the frequent lack of human mediation in the diagrammatic images of BnF fr. 135/6 means that the objects of thought have been “plucked from a narrative flow...[to become] salient objects for reflection.”³⁹⁰ The epistemically rich diagram is not simply an illustration that comments on the text but is “situated in the world like an object,” and is

³⁸⁸ Jean Corbechon, Prologue to *On the Properties of Things*, 1372. Transcription from Donal Byrne, “*Rex Imago Dei: Charles V of France and the Livre des propriétés des choses*,” *Journal of Medieval History* 7, no. 1(1981): 97-113, 102. Byrne’s text is an edition produced from the group of 13 French manuscripts, all dating from between 1390 and 1416, that he uses in his study.

³⁸⁹ Hugh of Saint Victor, *The Didascalicon A Medieval Guide to the Arts*, trans. Jerome Taylor, (New York & West Sussex: Columbia University Press, 1991), 93.

³⁹⁰ Barbara Maria Stafford, *Echo Objects: The Cognitive Work of Images* (Chicago: University of Chicago Press, 2007), 46.

therefore itself a site for analytical thought.³⁹¹ The emphasis on collection and division, and the necessity of active reader engagement, are the hallmarks of the encyclopedic genre in terms of both text and image. The aesthetic choices of artists and designers are implicated in the various mind-altering operations that I attribute to each manuscript copy.

The interest in illustrating the mental activities of readers, either allegorically or diagrammatically, is consistent with the intellectual values of the encyclopedia's intended audience. These were active, questioning readers with social goals in relation to knowledge. Along with Corbechon's new prologue, the removal of the commentaries and occasional changes to the text, the addition of an image program was considered an important part of the cultural translation of the book for the French elite.³⁹² On the face of things, the changes that were made to the text are subtle; they re-frame Bartholomaeus' entries more often than they directly alter them. Indeed, because the material transformations that accompany the translation are so obviously *aesthetic*, it is easy to miss the fact that the newly included paintings highlight, or even add to, the *epistemic* power of the text. We may expect frivolity from a courtly audience when we compare them with the students and preachers who were the original readers of Bartholomaeus' relatively unadorned Latin text, but, as I suggest, this kind of conclusion is too reductionist. The material transformation of the book acts, in part, in service to the knowledge it contains through the cognitive operations bound up in visualization.

³⁹¹ John Bender and Michael Marrinan, *The Culture of Diagram* (Stanford, California: Stanford University Press, 2010), 7 (my italics).

³⁹² Byrne, "Rex Imago Dei," 100.

The open structure of the encyclopedic text makes adapting it for a particular audience relatively straightforward – and this would be true both for the later middle ages, as well as for Enlightenment readers of Diderot. The purpose of the text can be altered through revisions to the prologue and individual entries can be changed, added or removed without sacrificing the cohesion of the book’s organizational structure. Embedded within the notion that the work is an “inventory of Creation” or a “*somme generale*” is the idea that the text should be expanded, updated, and/or reframed to reflect the world of the reader.³⁹³ Even if, in the case of Bartholomaeus manuscripts, the text is meant to transmit authoritative Biblical knowledge or a complex cosmological system, the status of the humble compiler and the juxtaposition of multiple views leave gaps for the reader to interpret the content. This leads to the production of a text that seems unstable when compared, for example, with a printed edition of the *Encyclopaedia Britannica*, but, as I have demonstrated, the flexibility of the text has obvious benefits at the level of reception.

Further Study

This research project has been constrained by the focus on the two case studies I have used to illustrate the many different cognitive functions of encyclopedic images. I have limited my argument largely to the discussion of select images and their contexts within these two manuscripts. In the future, I hope to expand the scope of my analysis in three ways. The most modest in scale would be to first study the relationships between the miniatures discussed in this dissertation and the rubrics used to introduce them in French

³⁹³ Walter Cahn, “Medieval Landscape and the Encyclopedic Tradition.” *Yale French Studies*, Special Issue: Contexts: Style and Values in Medieval Art and Literature (1991): 11-24, 14; Byrne, “*Rex Imago Dei*,” 102.

copies of the text. Existing art historical scholarship labels and discusses these pictures based on common interpretations of the subject of the miniatures rather than their relationships to the introductory texts. This separation of text and image is understandable, as these art historical texts are usually interested in situating the miniatures within an artistic oeuvre or greater illustrative tradition. Unfortunately, divorcing these miniatures from the encyclopedic entries hides the fact that the scholarly interpretations of the paintings often place image and text in conflict. I have briefly noted this conflict in this dissertation (for example, in my discussion of celestial and terrestrial hierarchies in Chapter Four) and included the rubrics in my description of the figures from my case studies, but a closer reading could help to explain some of these disparities. It is possible, given the variation in both text and image between manuscripts, that these inconsistencies may not be readily resolved.

The second way that I would consider extending this argument is to include a discussion of earlier image-types. This would involve further analysis of the “instruction-type” images that feature students in a classroom setting. The instruction-type image is fairly common in the late fourteenth and early fifteenth centuries and could add to my discussion of the shifting illustrative tradition of these manuscripts in France. There is also one illustrated Latin copy of the text created in the early fourteenth century, Fitzwilliam MS CFM 15, that I have mentioned only in passing in my current discussion. Analysis of this manuscript would involve further textual comparison of the Latin and French versions of the encyclopedia beyond the prologues. The purpose of this dissertation has not been to outline the evolution of the illustrative strategies used in Bartholomaeus manuscripts, but adding these two components would allow me to present

such an analysis. Though it is too early to draw conclusions about the relationships between changing audiences and the images that were found in their books beyond the narrow slice of reception history I've studied in the current project, I speculate that there may well be many possible meanings – different openings in terms of cognition and understanding – in the transitions between illustrative modes, and this awaits further investigation.

The third way that I could expand this project would be to test my model of the cognitive value of encyclopedic images by applying it to other types of information-rich depictions. I have already started to do this in Chapter Six, in my discussion of the similarities between Bartholomaeus diagrams and images found in Diderot's *Encyclopédie*, as well as my analysis of the Zodiac Man created in the Limbourg brothers' workshop. If, however, encyclopedism, and complex didactic imagery, can be understood as an important mode of thought with a strong connection to medieval ideas about cognition, it stands to reason that we could find evidence of this kind of thinking in other images. This could involve studying a broader corpus of medieval diagrams and images with list-like qualities in other fifteenth-century French manuscripts of the time.

Bibliography

A. Manuscripts and Early Printed Books

Berkeley, Huntington Library, HM 1101, 15th Century, Book of Hours.

Berkeley, Huntington Library, HM 27523, 15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Cambridge, Fitzwilliam Library, MS. CFM 15, early 14th Century, Latin text, Bartholomaeus Anglicus, *De proprietatibus rerum*.

Cambridge, Fitzwilliam Library, MS. 251, 15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

London, British Library, Cotton, MS. Aug. A. VI, 15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

London, British Library, Royal 6 E VI and VII, c. 1327-1375, James Le Palmer, *Omne Bonum*.

Paris, Bibliothèque nationale de France fr. 134, c. 1470, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Paris, Bibliothèque nationale de France fr. 135/6, late 15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Paris, Bibliothèque nationale de France fr. 216, 14th-15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Paris, Bibliothèque nationale de France fr. 218, late 15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Paris, Bibliothèque nationale de France fr. 9141, early 15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Paris, Bibliothèque nationale de France fr. 16993, 14th-15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Paris, Bibliothèque nationale de France fr. 22531, early 15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Paris, Bibliothèque nationale de France fr. 22534, late 13th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Paris, Bibliothèque nationale de France fr. 22533, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Reims, Bibliothèque de Reims, BM ms. 0993, early 15th Century, Jean Corbechon's French Translation of Bartholomaeus Anglicus, *De proprietatibus rerum*.

Victoria, University of Victoria Library, Ms. Lat. 1, Late 13th Century, Abbreviated copy of Bartholomaeus Anglicus, *De proprietatibus rerum*.

B. Primary Sources

Augustine, Book IX, The Trinity. *Stanford Encyclopedia of Philosophy*, "Intentionality in Ancient Philosophy", Stanford University, 2007.

Brunetto Latini, *The Book of the Treasure/Li Livres dou Tresor*, trans. Paul Barrette and Spurgeon Baldwin. New York, London: Garland Publishing, 1993.

De Trevisa, John. *On the Properties of Things: John Trevisa's Translation of Bartholomaeus Anglicus, de Proprietatibus Rerum: A Critical Text*. Oxford: Oxford University Press, 1988.

Hugh of Saint Victor, *On the Sacraments of the Christian Faith (De Sacramentis)*, trans. Roy J. Deferrari. Cambridge: Medieval Academy of America, 1951.

———. *The Didascalicon of Hugh of Saint Victor*, trans. Jerome Taylor, *A Medieval Guide to the Arts*. New York & West Sussex: Columbia University Press, 1991.

Vincent de Beauvais, *Speculum naturale*, in *Bibliotheca mundi Vincentii Burgundi*, Facsimile: Graz: Akademische Druck- und Verlagsanstalt, 1964.

C. Secondary Sources

Alexander, Jonathan. "Labeur and Paresse: Ideological Representations of Medieval Peasant Labor," *The Art Bulletin* 73, No. 3 (1990): 436-452.

Amtower, Laurel. *Engaging Words: The Culture of Reading in the Later Middle Ages*. New York: Palgrave, 2000.

Barrette, Paul and Spurgeon Baldwin. Introduction to *Brunetto Latini: The Book of the Treasure/Li Livres dou Tresor*, by Brunetto Latini. New York, London: Garland Publishing, 1993.

Bender, John, and Michael Marrinan. *The Culture of Diagram*. Stanford, California: Stanford University Press, 2010.

- Best, David. "Intentionality and Art." *Philosophy* 56 (1981): 349-63.
- Binkley, Peter, ed. *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress*. Leiden, New York, Köln: Brill, 1996.
- Blair, Ann M. *Too Much to Know: Managing Scholarly Information before the Modern Age*. New Haven & London: Yale University Press, 2010.
- Blom, Philipp. *Enlightening the World: Encyclopédie, The Book that Changed the Course of History*. New York: Palgrave, 2005.
- Bober, Harry. "The Zodiacal Miniature of the *Très Riches Heures* of the Duke of Berry: Its Sources and Meaning." *Journal of the Warburg and Courtauld Institutes* 11 (1948): 1-34.
- Buettner, Brigitte. *Boccaccio's Des Cleres et Nobles Femmes: Systems of Signification in an Illuminated Manuscript*. Seattle & London: College Art Association & The University of Washington Press, 1996.
- Burrow, J.A. *Gestures and Looks in Medieval Narrative*, Cambridge: Cambridge University Press, 2002.
- Byrne, Donal. "The Boucicaut Master and the Iconographical Tradition of the *Livre des propriétés des choses*." *Gazette des Beaux-Arts* 92 (1978): 149-64.
- . "*Rex Imago Dei*: Charles V of France and the *Livre des propriétés des choses*." *Journal of Medieval History* 7 (1981): 97-113.
- Cahn, Walter. "Medieval Landscape and the Encyclopedic Tradition." *Yale French Studies*, Special Issue: Contexts: Style and Values in Medieval Art and Literature (1991): 11-24.
- Camille, Michael. "Seeing and Reading: Some Visual Implications of Medieval Literacy and Illiteracy," *Art History* 8, No. 1 (1985): 26-49.
- Campbell, Stephen J. and Sandra Seekins, *The Body Unveiled: Boundaries of the Figure in Early Modern Europe*. Michigan: The University of Michigan Museum of Art, 1997.
- Carr, Nicholas. *The Shallows: What the Internet Is Doing to Our Brains*. New York & London: W.W. Norton & Company, 2010.
- Carruthers, Mary. *The Book of Memory: A Study of Memory in Medieval Culture*. Cambridge: Cambridge University Press, 2008.
- . *The Craft of Thought: Meditation, Rhetoric, and the Making of Images*, 400-

- 1200, Cambridge Studies in Medieval Literature. Cambridge: Cambridge University Press, 1998.
- Clark, Andy. *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence*. Oxford, New York: Oxford University Press, 2003.
- . *Supersizing the Mind: Embodiment, Action, and Cognitive Extension*. Oxford, New York: Oxford University Press, 2008.
- Coleman, Janet. *Ancient and Medieval Memories: Studies in the Reconstruction of the Past*. Cambridge and New York: Cambridge University Press, 1992.
- Coleman, Joyce. *Public Reading and the Reading Public in Late Medieval England and France*. Cambridge: Cambridge University Press, 1996.
- . “The First Presentation Miniature in an English-Language Manuscript.” In *The Social Life of Illumination: Manuscripts, Images and Communities in the Late Middle Ages*, edited by Joyce Coleman, Mark Cruse and Kathryn A. Smith, 403-437. Turnhout, Belgium: Brepols, 2013.
- Creech, James. *Diderot: Thresholds of Representation*. Columbus: Ohio State University Press, 1986.
- Curschmann, Michael. “Imagined Exegesis: Text and Picture in the Exegetical Works of Rupert of Deutz, Honorius Augustodunensis, and Gerhoch of Reichersberg” *Traditio* 44 (1988): 145-169.
- Darnton, Robert. *The Case for Books: Past, Present and Future*. New York: Public Affairs, 2009.
- Daston, Lorraine. *Objectivity*. New York: Zone, 2007.
- Delisle, Leopold. “Traité divers sur les propriétés des choses,” *Histoire littéraire de la France* 30 (1888): 253.
- de Nie, Giselle and Thomas F.X. Noble, eds., *Envisioning Experience in Late Antiquity and the Middle Ages: Dynamic Patterns in Texts and Images*. Surrey, England and Burlington, VT: Ashgate, 2012.
- Durrieu, Paul. *La Peinture en France au Début du Xve Siècle: Le Maître des Heures du Maréchal de Boucicaut*. Bruges: Librairie de l'Art Ancien et Moderne, 1906.
- Eco, Umberto, *The Infinity of Lists*, Translated by Alastair McEwan. New York: Rizzoli, 2009.
- Eco, Umberto, Jean-Claude Carrière, and Jean-Philippe de Tonnac, *This Is Not the End of the Book: a Conversation Curated by Jean-Philippe De Tonnac*. Translated by

- Polly McLean. London: Harvill Secker, 2011.
- Edson, Evelyn. *Mapping Time and Space: How Medieval Mapmakers Viewed Their World*. London: The British Library, 1999.
- Elkins, James. "Art History and Images That Are Not Art." *Art Bulletin* 77, No. 4 (1995): 553-71.
- . *Visual Studies: A Skeptical Introduction*. New York: Routledge, 2003.
- Esmeijer, Anna C. *Divina Quaternitas: A Preliminary Study in the Method and Application of Visual Exegesis*. Amsterdam: Van Gorcum, 1978.
- Evans, Ruth. "Our Cyborg Past: Medieval Artificial Memory as Mindware Upgrade." *Postmedieval: A Journal of Medieval Cultural Studies* 1, No. 1 (2010): 64-71.
- Fowler, Robert L. "Encyclopaedias: Definitions and Theoretical Problems." In *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress, Groningen, 1-4 July 1996*, edited by Peter Binkley, 3-29. Leiden, New York, Köln: Brill, 1997.
- Franklin-Brown, Mary. *Reading the World: Encyclopedic Writing in the Scholastic Age*. Chicago: University of Chicago Press, 2012.
- Freedberg, David. *The Power of Images: Studies in the History and Theory of Response*. Chicago: University of Chicago Press, 1989.
- Freeman, Rosemary. *English Emblem Books*. London: Chatto & Windus, 1948.
- Freeman Sandler, Lucy. *Studies in Manuscript Illumination 1200-1400*. London: The Pindar Press, 2008.
- Goodman, Nelson. *Languages of Art: An Approach to the Theory of Symbols*. Cambridge: Hackett Publishing, 1976.
- . *Ways of Worldmaking*. Indianapolis: Hackett Publishing Company, 1978.
- Green, D.H. "On the Primary Reception of Narrative Literature in Medieval Germany." *Forum for Modern Language Studies* 20 (1984): 289-308.
- Greere, Duncan and Olivia Solon. "Viewpoints: What the World Thinks of Wikipedia." *Wired.co.uk*, January 2011. Accessed October 13, 2014.
<http://www.wired.co.uk/news/archive/2011-01/13/wikipedia-viewpoints>
- Hall, Bert. "The Didactic and the Elegant: Some Thoughts on Scientific and Technological Illustrations in the Middle Ages and Renaissance" in *Picturing*

Knowledge: Historical and Philosophical Problems Concerning the Use of Art in Science, edited by Brian S. Baigrie, 29-64. Toronto: University of Toronto Press, 1996.

Harcourt, Glenn, "Andreas Vesalius and the Anatomy of Antique Sculpture," *Representations* 17, Special Issue: The Cultural Display of the Body (1987): 39 & 40.

Harding, Catherine. "Speaking in Pictures: Reading, Memory and Interpretation in Francesco da Barberino's Advice to Women in his *Reggimento e costumi di donna*." *RACAR: revue d'art canadienne/Canadian Art Review* 36, No. 1 (2011): 29-40.

Hedeman, Anne D., *The Royal Image: Illustrations of the Grandes Chroniques de France 1274-1422*. Berkeley, Los Angeles and Oxford: University of California Press, 1991.

Herrlinger, Robert. *History of Medical Illustration from Antiquity to A.D. 1600*. Translated by Uitgeverij G. F. Callenbach N.V. London: Pitman Medical and Scientific Publishing Co. Ltd., 1970.

Holbrook, Sue Ellen. "The Properties of Things and Textual Power: Illustrating the French Translation of *De Proprietatibus Rerum* and a Latin Precursor" in *Patrons, Authors and Workshops: Books and Book Production in Paris Around 1400*, edited by Godfried Croenen and Peter Ainsworth, 387-403. Dudley, MA: Peter, 2006.

Hoogvliet, Margriet. "Mappae Mundi and Medieval Encyclopaedias: Image Versus Text." In *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress, Groningen, 1-4 July 1996*, edited by Peter Binkley, 63-74. Leiden, New York, Köln: Brill, 1997.

Jones, Peter Murray. *Medieval Medicine in Illuminated Manuscripts*. London: The British Library, 1998.

Keen, Elizabeth. *The Journey of a Book: Bartholomew the Englishman and the Properties of Things*. Canberra, Australia: Australian National University Press, 2007.

———. "A Peopled Landscape: Bartholomew the Englishman on the Properties of Daily Life." *Parergon* 24, No. 2 (2007): 7-22.

Kline, Naomi Reed. *Maps of Medieval Thought: The Hereford Paradigm*. New York: Boydell Press, 2005.

König, Eberhard, *Französische Buchmalerei um 1450: der Jouvenal-Maler, der Maler*

- des Genfer Boccaccio und die Anfänge Jean Fouquets*. Berlin: Mann, 1982.
- Küchler, Susanne, "Materiality and Cognition: The Changing Face of Things." In *Materiality*, edited by Daniel Miller, 206-230. Durham, NC: Duke University Press.
- Kumler, Aden. *Translating Truth: Ambitious Images and Religious Knowledge in Late Medieval France and England*. New Haven & London: Yale University Press, 2011.
- Latour, Bruno. *Nous n'avons jamais été modernes/ We Have Never Been Modern*. Cambridge: Harvard University Press, 1993.
- . *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford, New York: Oxford University Press, 2005.
- Lidaka, Juris G. "Bartholomaeus Anglicus in the Thirteenth Century." In *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress*, edited by Peter Binkley, 393-406. Leiden, New York, Koln: Brill, 1997.
- Lindquist, Sherry C.M, ed. *The Meanings of Nudity in Medieval Art*. Surrey, England & Burlington, Vermont: Ashgate, 2011.
- Lovink, Geert, and Nathaniel Tkacz, eds. *Critical Point of View: A Wikipedia Reader*, Inc. Reader #7. Amsterdam: Institute of Network Cultures, The School for Communication and Design at Amsterdam University, 2011.
- MacDonald, Alasdair , and Michael W. Twomey, eds. *Schooling and Society: The Ordering and Reordering of Knowledge in the Western Middle Ages*. Leuven, Paris, Dudley, MA: Peeters, 2004.
- Mauriès, Patrick. *Cabinets of Curiosities*. London: Thames & Hudson, 2002.
- McGrady, Deborah. *Controlling Readers: Guillaume De Machaut and His Late Medieval Audience*. Toronto, Buffalo & London: University of Toronto Press, 2006.
- Meyer, Heinz. *Die Enzyklopädie des Bartholomäus Anglicus: Untersuchungen zur Überlieferungs und Rezeptionsgeschichte von "De proprietatibus rerum."* München: W. Fink, 2000.
- Mitchell, W.J.T. *Iconology - Image, Text, Ideology*. Chicago and London: The University of Chicago Press, 1986.
- Netzer, Nancy and Virginia Reinburg, eds., *Memory and the Middle Ages*. Chestnut Hill: Boston College Museum of Art, 1995.

- Meier, Christel. "Grundzüge der mittelalterlichen Enzyklopädie. Zu Inhalten, Formen und Funktionen einer problematischen Gattung." In *Literatur und Laienbildung im Spätmittelalter Und in Der Reformationszeit*, edited by L Grenzmann and K. Stackmann, 467-500. Stuttgart: Metzler, 1984.
- . "On the Connection between Epistemology and Encyclopedic Ordo in the Middle Ages and the Early Modern Period." In *Schooling and Society: The Ordering and Reordering of Knowledge in the Western Middle Ages*, edited by Alasdair & Michael W. Twomey MacDonald, 93-117. Leuven, Paris & Dudley, MA: Peeters, 2004.
- Meiss, Millard. *French Painting in the Time of Jean De Berry: The Boucicaut Master*. London: Phaidon, 1968.
- . *French Painting in the Time of Jean De Berry: The Late Fourteenth Century Patronage of the Duke*. London: Phaidon Publishers Inc., 1967.
- . *French Painting in the Time of Jean De Berry: The Limbourgs and Their Contemporaries*. New York: George Braziller, Inc., 1974.
- Meyer, Heinz, *Die Enzyklopädie des Bartholomäus Anglicus: Untersuchungen zur Überlieferungs und Rezeptionsgeschichte von "De proprietatibus rerum."* München: W. Fink, 2000.
- Mitchell, W.J.T. *Iconology - Image, Text, Ideology*. Chicago and London: The University of Chicago Press, 1986.
- Netzer, Nancy and Reinburg, Virginia, eds. *Memory and the Middle Ages*. Chestnut Hill: Boston College Museum of Art, 1995.
- Pächt, Otto. "La Terre De Flandres." *Pantheon* 36 (1978): 3-16.
- Page, Sophie, *Astrology in Medieval Manuscripts*, Toronto: University of Toronto Press, 2002.
- Panofsky, Erwin. *Early Netherlandish Painting: Its Origins and Character* Cambridge: University of Cambridge Press, 1953.
- . *Gothic Architecture and Scholasticism: An Inquiry into the Analogy of the Arts, Philosophy, and Religion in the Middle Ages*. New York: Meridian Books, 1985.
- Parkes, M. B. *Scribes, Scripts and Readers: Studies in the Communication, Presentation and Dissemination of Medieval Texts*. London & Rio Grande: The Hambledon Press, 1991.
- Parker, Derek and Parker, Julia, *A History of Astrology*, London: Andre Deutsch Ltd.,

1985.

- Parshall, Peter. "The Art of Memory and the Passion." *The Art Bulletin* 81, No. 3 (1999): 456-72.
- Perkins, David, and Barbara Leondar, eds. *The Arts and Cognition*. Baltimore: Johns Hopkins University Press, 1977.
- Persaud, T.V.N. *Early History of Human Anatomy - from Antiquity to the Beginning of the Modern Era*. Springfield, Illinois: Charles C. Thomas, 1984.
- Ribémont, Bernard. "On the Definition of an Encyclopaedic Genre in the Middle Ages," in *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress, Groningen, 1-4 July 1996*, edited by Peter Binkley, 47-61. Leiden, New York, Köln: Brill, 1997.
- Rivers, Kimberly. "Memory, Division and the Organization of Knowledge in the Middle Ages." In *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress, Groningen, 1-4 July 1996*, edited by Peter Binkley, 147-58. Leiden, New York, Köln: Brill, 1997.
- Rubin, Stanley. *Medieval English Medicine*. London & Vancouver: David & Charles Newton Abbot, 1974.
- Rudolph, Conrad. "First, I Find the Center Point": Reading the Text of Hugh of St. Victor's "The Mystic Ark." *Transactions of the American Philosophical Society*, New Series 94, No. 4 (2004): i-110.
- Russell, Daniel S. *Emblematic Structures in Renaissance French Culture*. Toronto: University of Toronto Press, 1995.
- Saenger, Paul. "Silent Reading: Its Impact on Late Medieval Script and Society." *Viator* 13 (1982): 367-414.
- . *Space Between Words: The Origins of Silent Reading*. Stanford, California: Stanford University Press, 1997.
- Sandler, Lucy Freeman. *Studies in Manuscript Illumination 1200-1400*. London: Pindar Press, 2008.
- . *Omne Bonum: A Fourteenth-Century Encyclopedia of Universal Knowledge*, Studies in Medieval and Early Renaissance Art History. London: Brepols Publishers, 1996.
- Scarry, Elaine, *Dreaming by the Book*. Princeton: Princeton University Press, 2001.

- Schaer, Roland, ed. *Tous les Savoirs du Monde: Encyclopédies et Bibliothèques, De Sumer au Xxie Siècle*. Paris: Bibliothèque nationale de France/Flammarion, 1996.
- Schmidt, Victor M., "The Limbourgs and Italian Art." In *The Limbourg Brothers: Nijmegen Masters at the French Court 1400-1460*. Edited by Rob Dückers and Pieter Roelofs. Translated by Alkins, Peter Mason and Yvette Rosenberg. Ludion: Museum Het Valkhof, 2005.
- SeBoyar, Gerald E. "Bartholomaeus Anglicus and His Encyclopedia." *Journal of English and Germanic Philology* 19, no. 2 (1920): 168-89.
- Seymour, M.C. and Colleagues. *Bartholomaeus Anglicus and His Encyclopedia*. Aldershot, Hampshire & Brookfield, Vermont: Variorum, 1992.
- Sherman, Claire Richter. *Imaging Aristotle: Verbal and Visual Representation in Fourteenth-Century France*. Berkeley, Los Angeles, London: University of California Press, 1995.
- . *The Portraits of Charles V of France (1338-1380)*. New York: New York University Press, 1969.
- Siraisi, Nancy G., "Vesalius and Human Diversity in *De humani corporis fabrica*," *Journal of the Warburg and Courtauld Institutes* 57 (1994): 60-88.
- Snyder, James. *Northern Renaissance Art: Painting, Sculpture, the Graphic Arts from 1350-1575*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1985.
- Stafford, Barbara Maria. *Artful Science: Enlightenment, Entertainment, and the Eclipse of Visual Education*. Cambridge, Mass: MIT Press, 1994.
- . *Body Criticism: Imaging the Unseen in Enlightenment Art and Medicine*. Cambridge, Mass: MIT Press, 1991.
- . *Echo Objects: The Cognitive Work of Images*. Chicago & London: The University of Chicago Press, 2007.
- . *Visual Analogy: Consciousness as the Art of Connecting*. Cambridge, Mass: MIT Press, 1999.
- Steele, Robert W. *Mediaeval Lore from Bartholomaeus Anglicus: De Proprietatibus Rerum*. London: Chatto and Windus, 1907.
- Terkla, Dan. "Hugh of St Victor (1096-1141) and Anglo-French Cartography." *Imago Mundi: The International Journal for the History of Cartography* 65 (2013): 161-174.

- Tweedale, Martin. "Representation in Scholastic Epistemology." In *Representation and Objects of Thought in Medieval Philosophy*, edited by Henrick Lagerlund, 63-79. Aldershot: Ashgate, 2007.
- Twomey, Michael W. "Inventing the Encyclopedia." In *Schooling and Society: The Ordering and Reordering of Knowledge in the Western Middle Ages*, edited by Alasdair & Michael W. Twomey MacDonald, 73-92. Leuven, Paris & Dudley, MA: Peeters, 2004.
- . "Middle English Translations of Medieval Encyclopedias." *Literature Compass* 3 (2006): 331-40.
- . "Towards a Reception History of Western Medieval Encyclopaedias in England before 1500." In *Pre-Modern Encyclopaedic Texts: Proceedings of the Second Comers Congress*, edited by Peter Binkley, 329-62. Leiden, New York, Koln: Brill, 1997.
- Van Engen, John, ed. *Learning Institutionalized: Teaching in the Medieval University*. Notre Dame, Indiana: University of Notre Dame Press, 2000.
- Ventura, Iolanda. "Quaestiones and Encyclopedias." In *Schooling and Society: The Ordering of Knowledge in the Western Middle Ages*, edited by Alasdair MacDonald and Michael W. Twomey, 23-42. Leuven, Paris, Dudley, MA: Peeters, 2004.
- Wells, James M, ed. *The Circle of Knowledge: Encyclopedias Past and Present*. Chicago: The Newberry Library, 1968.
- Wieck, Roger S. *Painted Prayers: The Book of Hours in Medieval and Renaissance Art*. New York: George Braziller, Inc., 1997.

Appendix A

Key Dates in the Life of Bartholomaeus Anglicus (c.1200-1272) and the Reception of his Encyclopedia

c. 1190	Alexander Neckam writes <i>De naturis rerum</i> .	
Before 1200	Birth of Bartholomaeus Anglicus.	Seymour, 10.
c. 1214	Bartholomaeus studies at Oxford under Robert Grosseteste. <i>Or</i> Bartholomaeus studies at Chartres.	Seymour, 10. Gerald Se Boyar, 185.
c. 1220	Bartholomaeus enters theology course at Paris.	Seymour, 10.
1224	Bartholomaeus probably joins the Franciscan Order (Friars Minor) at Saint-Denis.	Thomas of Eccleston, <i>De Adventu Fratrum Minorum in Anglia</i> , c. 1258. Seymour, 6.
1226	Death of Francis of Assisi.	
Before 1230	Bartholomaeus is probably <i>lector</i> at Paris <i>studium</i> .	Adam de Salimbene of Parma, <i>Chronica Fratrum</i> , 1284. Seymour, 6.
1230-5	Thomas de Cantimpré writes <i>De natura rerum</i> .	
1230	Two unnamed English Franciscan Friars, working as part of the <i>natio anglicana</i> in Paris, are called to Saxonia to manage the division of Germany into Rhineland and Saxonia. These two Friars are probably Bartholomaeus Anglicus and Johannes Anglicus.	Giordano of Giano, <i>Chronica Fratris Jordani</i> , 1262. Seymour, 1.
1231	Bartholomaeus employed as <i>lector</i> in Magdeburg, teaching student friars and possibly secular students. Part of this job involves selecting students to continue studies in Paris.	Giordano of Giano, <i>Chronica Fratris Jordani</i> , 1262. Seymour, 2.
c. 1240-	Bartholomaeus writes <i>On the Properties of</i>	Lidaka, 394.

1245	<i>Things</i> in Magdeburg, likely to serve as a textbook to help improve low education levels of students in the German provinces.	
c. 1246	Vincent de Beauvais writes <i>Speculum maius</i> .	
1247	Bartholomaeus elected Minister Provincial of Austria.	Giordano of Giano, <i>Chronica Fratris Jordani</i> , 1262. Seymour, 4.
1249	Dated letters confirm that Bartholomaeus is still Minister Provincial of Austria.	Seymour, 4.
1255-1256	Bartholomaeus of Prague (very likely Bartholomaeus Anglicus) elected Minister Provincial of Bohemia.	Seymour, 7.
1257	Bartholomaeus of Prague granted safe passage as Papal legate to Bohemia, Moravia, Poland and Austria.	Seymour, 7.
1257	Bartholomaeus of Prague named Bishop of the Cathedral at Lukow by Papal Bull.	Papal Bull. Seymour, 7.
1262	Bartholomaeus elected Minister Provincial of Saxonia.	Giordano of Giano, <i>Chronica Fratris Jordani</i> , 1262. Seymour, 3.
1270	Glossed Latin manuscripts of <i>On the Properties of things</i> appear for the first time. Two thirds of subsequent Latin manuscripts include a gloss.	Keen, 8.
1272	Bartholomaeus dies, still Minister Provincial of Saxonia.	Giordano of Giano, <i>Chronica Fratris Jordani</i> , 1262. Seymour, 3.
1275	Bartholomaeus' <i>On the Properties of Things</i> appears in University of Paris <i>taxationes</i> for disciplines of theology and philosophy (stationers' lists used in the <i>pecia</i> system).	Twomey, 342-3.
1304	Bartholomaeus' <i>On the Properties of Things</i> appears in University of Paris <i>taxationes</i> in a list of preachers' tools, signaling its revised use as a pastoral text.	Twomey, 343-4.
1309	Mantuan Translation: Vivaldo Belcazar composes an abridged translation of <i>On the Properties of Things</i> for patron Guido	Keen, 5. Sandler 401.

	Buonalcosi.	
c. 1350-1355	Provençal Translation: Anonymous translator produces a Provençal manuscript for Gaston Phébus, Count of Foix.	Sandler, 401.
1370s	Charles V of France sponsors the translation and illustration of over thirty classical and medieval texts. These include Aristotle's <i>Ethics</i> , <i>Politics</i> and <i>On the Heavens</i> , St. Augustine's <i>City of God</i> , John of Salisbury's <i>Policraticus</i> , Valerius Maximus' <i>Factorum et dictorum memorabilium libri novem</i> , and the Bible.	Sherman, 6.
1372	French Translation: Jean Corbechon, Chaplain of King Charles V of France, translates Bartholomaeus' work as part of the larger project noted above.	Sandler, 401.
1398/9	English Translation: John Trevisa, Vicar of Berkely, translates <i>On the Properties of Things</i> into English for his patron, Lord Thomas Berkely IV.	Keen, 5. Sandler, 401.
1404	Christine de Pisan writes <i>Le Livre des fais et bonnes meurs du sage roy Charles V</i> , in which she places Bartholomaeus' encyclopedia among " <i>les plus notable livres.</i> "	Sherman, 8.
c. 1400-1425	BnF fr. 9141 produced in Paris by the Boucicaut Master for patron, Béraud III de Clermont-Sancerre, dauphin d'Auvergne.	
c. 1445-1450	BnF fr. 135/6 produced in Le Mans for unknown patron.	
1470s	Printed editions of <i>On the Properties of Things</i> produced in France and Germany.	Sandler, 401.
1582	Stephen Batman produces an English printed version of <i>On the Properties of Things</i> entitled " <i>Batman uppou Bartholome, His Booke De Proprietatibus Rerum; newly corrected, enlarged, & amended, with such Additions as are requisite, unto every severall Booke. Taken foorth of the most approved Authors, the like heretofore not translated in English. Profitable for all Estates, as well for the benefite of the Mind as the Bodie.</i> "	Keen, 5.
1601	Last known print run of <i>On the Properties of Things</i> , a Latin edition, produced in Germany.	Keen, 4.

Appendix B

Outline of Bartholomaeus Anglicus' *On the Properties of Things* and Illustrative Programs BnF fr. 9141 and BnF fr. 135/6

Book	Name		Content	Key Sources (as per Seymour)	Illustrations and Rubrics, BnF fr. 9141	Illustrations and Rubrics, BnF fr. 135/6
Prologue					Fol. 9 – Creation scene	BnF fr. 135 Fol. 5 – Trinity “ <i>cy commence la table de tout le livre des proprietez des choses</i> ” Fol. 29 – Presentation Scene “ <i>cy commence le livre des proprietez des choses translate de latin en françois l'an mil CCC LXXIII par le commandement du roy charles le quint de son nom</i> ”
1	<i>De deo</i>	<i>On God</i>	Names of the Godhead, nature of the Trinity.	Innocent III, Bernard, Isidore, Plato, Plotinus, Macrobius, Boethius.	Fol. 11 – Trinity “ <i>cy fine le prologue de l'auteur et comance le premier livre qui parle de dieu et des noms divins qu'ilz sont diz et declaires de dieu nostre seigneur</i> ”	
2	<i>De angelis</i>	<i>On angels</i>	Angels, their nature, their three hierarchies and nine	St. John Damascene, Pseudo- Dionysius, Isidore, Gregory,	Fol. 17v - Fall of the angels “ <i>cy commence le second livre qui parle des</i>	Fol. 43 – Fall of the Angels “ <i>cy commence le second livre qui est des</i>

			orders, fall of the rebel angels, temptation from bad angels.	Peter Lombard, Ambrose, Bede, Bible, Augustine, Plato, Cassiodorus, William of Auxerre.	<p><i>proprietez des angelz tant bons come malvaiz”</i></p> <p>Fol. 20v – Terrestrial hierarchy <i>“la premiere jerarchie des angelz”</i></p> <p>Fol. 23v – Celestial and terrestrial hierarchy <i>“la moyenne jherarchie des angels”</i></p> <p>Fol. 25 – Celestial hierarchy <i>“le tierce jherarchie des angels”</i></p>	<i>proprietez des angels tant des bons comme des mauvais”</i>
3	<i>De anima</i>	<i>On the soul and reason</i>	Definition of the soul’s aspects (vegetable, sensible and rational), the five senses, spirit, pulse.	Aristotle, Pseudo-Augustine, Isidore, Alfred of Sareshel, Pseudo-Bernard, John Damascenus, Chalcidius, Macrobius, Ovid, Virgil, Plato, Zeno, Pythagoras, Posidinius, Asclepides, Hippocrates, Heraclitus, Democrates, Parmenides, Epicurus, Hipparchus, Alcher, Hun ibn Ishaq, Cassiodorus, Gregory, Cinstantinus, Alhazen, Ambrose, Alcher of Clairvaus, Augustine, Avicenna, Isaac, Anon Arabic medical writers.	<p>Fol. 29v. Creation of Adam <i>“ci commence le tiers livre qui traite quelle chose est homme et quel chose est l’ame selon verite”</i></p>	Fol. 65 – Human body / body and soul <i>“le premier: qu’est homme”</i>

4	<i>De elementis</i>	<i>On the elements (humours)</i>	The bodily humours, the nature of matter as continuous and without void.	Aristotle, Hippocrates, Galen, Avicenna, Isidore, Hunain ibn Ishaq, Hariopontus, Macrobius, Alexander of Tralles, Gregory, Jerome.	Fol. 43 – The elements “ <i>cy commence le IIIe livre qui traite des qualitez des ellemens et des III humeurs desquelles sont composees les corps tant des hommes comme des bestes</i> ”	Fol. 91 – Elements of the Human Body “ <i>cy commence le IIIe livre des qualitez des elemens et des quatre humeurs desquelles sont composees les corps tant des hommes comme des bestes</i> ”
5	<i>De hominis corpore</i>	<i>On the parts of the body</i>	Survey of human organism, individual parts of the body in head-to-toe order (detailing for each the purpose of the organ, animal forms, diseases, misc. facts), types of bodily tissues.	Isidore, Constantinus, Aristotle, Hippocrates, Galen. Minor: Augustine, Jerome, Pliny, Avicenna, Dioscorides, Giles de Corbeil, Maurus, Cicero, Cato, Varro.	Fol. 55 - Anatomy “ <i>ci commence le Ve livre qui parle du corps de homme et de ses parties desquelles la sainte escripture fait mencion</i> ”	Fol. 113- Anatomy “ <i>cy commence le Ve livre qui parle du corps de homme et de ses parties desquelles la sainte escripture fait mencion, premier chappitre</i> ”
6	<i>De etate hominis</i>	<i>On the states of man</i>	Types of people based on age and sex, biblical categories, “non-natural things” (e.g. food and drink, sleep and wakefulness, labour and rest).	Isidore, Bible and gloss, Aristotle, Constantinus, Galen, Augustine, Gregory, Fulgentius, Rabanus Maurus, Jerome, Seneca, Macrobius, Papias, Hunain ibn Ishaq, Avicenna.		Fol. 193 – Ages of Man “ <i>cy commence le VIe livre des proprietiez de homme en general et en especial</i> ”
7	<i>De infirmitatibus</i>	<i>On diseases</i>	Illnesses and their causes, diseases by body part in head-to-toe order, medicines, the skills of physicians.	Isidore, Constantinus Africanus, Johannes Platear, Bible.		Fol. 223 – Doctor and patient “ <i>cy commence le VIIe livre des maladies</i> ”
8	<i>De mundo et celo</i>	<i>On earth and the heavens</i>	The world, spheres of the heavens, the zodiac, motions of the	Aristotle, Genesis, Basil, Bede, Gregory, Isidore, Arabic astronomies	Fol. 138v. – Astronomy “ <i>ci commence le VIIIe livre des proprietiez qui</i>	Fol. 285 – Zodiac, elements and heavenly spheres

			planets, the sun and moon, comets and stars, natural theory of light.	(unknown).	<i>parle du monde et des corps celestiaux</i>	“cy commence le VIIIe livre qui traite du monde et des corps celestieux”
9	<i>De temporibus</i>	<i>On time</i>	Time and motion, the solar and lunar years, solstices and equinoxes, the seasons, the months, the week, artificial and natural days, divisions of the day, days with religious significance.	Isidore, Bede, Hippocrates, Galen, Constantinus, Jean Belet, Bible, Albumazar, Augustine, Gregory, Aristotle, Pseudo-Aristotles, Macrobius, Martianus Capella, Pabanus Maurus, William of Conches.		Fol. 327 – Labours of the Month “cy commence le IXe livre des proprietes des choses qui traite du temps et de ses parties”
10	<i>De materia et forma</i>	<i>On matter and form</i>	The nature of matter, form and the elements, fire and its components, active nature of matter, nobility of different elements based on relative quantities of form and matter (primacy of fire), materiality vs. spirituality.	Plato, Aristotle, Chalcidius, Gundissalinus, Alkindi, Pseudo-Dionysius, Gregoy, Constantinus, Remigius, Isidore.	Fol. 171v. – Couple in Bed “ci comance le Xe livre qui traite de la forme et matiere des choses et des elemens” Fol. 175 – Ages of Man	BnF fr. 136 Fol. 1 – Form and Matter “cy commence le Xe livre parlant de la matiere de quoy les choses materielles sont faites”
11	<i>De aere</i>	<i>On air</i>	The nature of air, types of weather arranged alphabetically (wind, clouds, rainbows, dew, rain, frost, hail, snow, mist, thunder, lightning, breeze), effects of air on health.	Aristotle, Isidore, Bede, William of Conches, Constantinus, Galen, Hippocrates, Mattheus Platearius, Hunain ibn Ishaqu, Theophilos Protospatharios.	“ci comance l'unsieme livre qui traite des proprietes de l'air et de ses passions”	Fol. 4v. Climate – Bad weather “cy commence le XIe livre parlant de l'air et de ses passions en general, premier chappitre”
12	<i>De</i>	<i>On</i>	The properties	Bible, Aristotle,	Fol. 183 –	Fol. 12 –

	<i>avibus</i>	<i>birds</i>	of birds, alphabetically arranged (before translation) list of sky creatures.	Pliny, Isidore.	<p>Fauna: Birds <i>“cy commence le XIIe livre qui traite des oyseaux tant en general come en especial”</i></p>	<p>Fauna: Birds <i>“cy commence le XIIe livre du quel le premier chappitre est des oyseaux en general”</i></p> <p>Fol. 14 – Eagle <i>“le second chappitre de l'aigle”</i></p> <p>Fol. 15 – Falcon <i>“le IIIe chappitre du faucon”</i></p> <p>Fol. 15v. – Hawk <i>“le IIIIe chappitre de aliet alias mouchet”</i></p> <p>Fol. 16 - Bee <i>“le cinquiesme chappitre des mouches qui font le miel”</i></p> <p>Fol. 17 – Horned Owl <i>“le VIe chappitre d'un oysel qui est appellé chauan volant de nuit”</i></p> <p>Fol. 17v. – Dove <i>“le VIIe chappitre des coulons”</i></p> <p>Fol. 18 – Quail <i>“le VIIIe chappitre des cailles”</i></p> <p>Fol. 18v. – Stork <i>“le IXe de la cygongne”</i></p>
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						<p>Fol. 18v. – Crow <i>“le Xe chappitre de la corneille”</i></p> <p>Fol. 19 – Raven <i>“le XIe chappitre du corbeau”</i></p> <p>Fol. 19v. – Swan <i>“le XIIe du cygne”</i></p> <p>Fol. 19v. – Mosquitos <i>“le XIIIe chappitre des mouchettes que on appelle cincelles”</i></p> <p>Fol. 20 – Cicada <i>“le XIIIe chappitre des cycades”</i></p> <p>Fol. 20 – Phoenix <i>“le XVe chappitre du fenix”</i></p> <p>Fol. 20v. – Crane <i>“le XVIe chappitre de la grue”</i></p> <p>Fol. 20v. – Rooster <i>“le XVIIe chappitre du coq”</i></p> <p>Fol. 20 – Capon <i>“le XVIIIe chappitre du chapon”</i></p> <p>Fol. 21v. – Chicken with her chicks</p>
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						<p><i>“le XIXe chappitre de la geline”</i></p> <p>Fol. 21v. – Griffin <i>“le XXe chappitre du griffon”</i></p> <p>Fol. 21v. – Gyrfalcon <i>“le XXIe chappitre du gerfault”</i></p> <p>Fol. 22 – Swallow <i>“le XXIIe chappitre de l'aronde”</i></p> <p>Fol. 22 – Calandre lark <i>“le XXIIIe chappitre de la kaladre”</i></p> <p>Fol. 22v – Gull <i>“le XXIIIe chappitre d'un oysel appeller lar”</i></p> <p>Fol. 22v – Grasshopper <i>“le XXVe chappitre des locustes autrement saultereaux”</i></p> <p>Fol. 22v – Loon <i>“le XXVIe chappitre du plungon”</i></p> <p>Fol. 23 – Kite <i>“le XXVIIe de l'escouffle”</i></p> <p>Fol. 23 – Owl <i>“le XXVIIIe chappitre de la chnette volant de nuit”</i></p>
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						<p>Fol. 23 – Bittern “<i>le XXXIXe du buttor</i>”</p> <p>Fol. 23v. – Pelican “<i>le XXXe chappitre du pellican</i>”</p> <p>Fol. 23v. – Partridge “<i>le XXXIe chappitre de la perdris</i>”</p> <p>Fol. 24 – Peacock “<i>le XXXIIe chappitre du paon</i>”</p> <p>Fol. 24 – Sparrow “<i>le XXXIIIe chappitre du moyneau</i>”</p> <p>Fol. 24v – Ostrich “<i>le XXXIIIe chapitre de l'ostruce</i>”</p> <p>Fol. 24v. – Turtledove “<i>le XXXVe chapitre d'un oysel qui est appellé tarterelle</i>”</p> <p>Fol. 25 – Vulture “<i>le XXXVIe du voultour</i>”</p> <p>Fol. 25 – Owl “<i>le XXXVIIe chappitre d'un oysel appellé ulule</i>”</p> <p>Fol. 25 v. –</p>
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						<p>huppe “le XXXVIIIe chappitre de la huppe”</p> <p>Fol. 26 – Bat “le XXXIXe de la chauve soriz”</p>
13	<i>De aqua</i>	<i>On water</i>	Water, wells, pools, rivers, streams, specific rivers by name, lakes of the bible, major types of bodies of water, fish.	Isidore, Bible, Ambrose, Augustine, Basil, Bede, Jerome, John Damascenus, Rabanus Maurus, Peter Comestor, Constantinus, Jorath.	Fol. 197 – Element: Water “ci commence le tresieme livre qui traite de l’eau et des poissons et de ses differances”	Fol. 26 – Element: Water “cy commence le XIIIe livre de l’eau et de ses proprietiez et differences et de son aournement, premier chappitre en general”
14	<i>De montibus</i>	<i>On mountains</i>	The earth and its surfaces, mountains, biblical mountains, other topographies.	Isidore, Basil, Aristotle Nicolaus of Damascus, Macrobius, Constantinus Africanus, Bible and Gloss, Jerome.	Fol. 207 – Element: Earth “ci commence le XIIIe livre qui traite de la terre et de ses parties en general et en especial”	Fol. 36v – Element: Earth “cy commence le XIIIe livre faisant mencion de la terre et de ses parties”
15	<i>De regionibus</i>	<i>On the regions of the earth</i>	Gazetteer of place names, location, types of inhabitants, major cities, soil types, forests, rivers, lakes.	Isidore, Pliny, Orosius, Erodatus (13 th C German geographer).	Fol. 217v – Regions of the Earth “ci commence le XVe livre des proprietiez qui traite des provinces et des pays”	Fol. 46v. – Regions of the Earth “cy commence le XVe livre qui fait mencion des provinces et des pais”
16	<i>De lapidibus</i>	<i>On stones/minerals</i>	Alphabetical list of minerals starting with Isidore’s etymologies. Includes scriptural details.	Isidore, Damigeron, Avicenna, Mattheus Platearis, Marbode of Rennes.	Fol. 235v – Precious stone merchants (possibly Jean de Berry) “ci commence le XVIe livre qui traite des pierres et des couleurs et des metaulx.”	Fol. 73 – Minerals: Precious stones “y commence le XVIe livre qui fait mençon des pierres des couleurs et des metaulx”
17	<i>De herbis et plantis</i>	<i>On plants and trees</i>	Introduction to plants in general, alphabetical list of 195 specific plants.	Nicholaus of Damascus and commentary by translator Alfred of Sareshel, Matthaueus	Fol. 258v. – Flora “ci commence le XVIIe livre qui traite des arbes et des	Fol. 88 – Flora “cy apres commence le XVIIe livre qui traite des proprietiez des

				Platearius, Dioscorides, Isidore, Pliny.	<i>plantes et de leurs proprietez</i>	<i>arbres et des herbes et de leurs natures</i>
18	<i>De animali bus</i>	<i>On animals</i>	List of animals categorized as biblical, working, domestic, wild European, exotic, mythical, insects, serpents, snails, <i>femina</i> .	Aristotle, Avicenna, Augustine, Basil, Isidore, John Damascenus, Constantinus, Dioscorides, Galen, Hippocrates, Isaac Israeli, Pliny, Pseudo-Pythagoras.	Fol. 303v. - Fauna <i>“cy commence le XVIIIe livre qui fait mencion des proprietes des bestes”</i>	Fol. 135 – Fauna <i>“cy commence le XVIIIe livre qui fait mencion des proprietes des bestes”</i>
19	<i>De acciden tibus</i>	<i>On acciden tals</i>	Things encountered through the senses, twenty-six colours, odours, categories of taste, honey, milk, eggs, numbers, measures and weights, music.	Aristotle and contemporary commentaries, Hunain ibn Ishaq, Mattheus Platearius, Aegidius, Avicenna, Constantinus, Theophilos, Isidore, Isaac, Galen, Boethius.		Fol. 176v – Colours and tastes/the Perceiver <i>“cy commence le XIXe livre des proprietes des choses qui traite des couleurs des odeurs des saveurs et des liqueurs, le premier chapitre des couleurs en general”</i>