The Holy Land within the Manuscript:

Performative Cartography in British Library Additional Manuscript 10049

By

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ABSTRACT

This dissertation focuses on a pair of maps depicting Asia and Palestine currently at the British Library (BL Add. MS 10049, fol.64r-v), made around 1150 at the Benedictine abbey of Saint Martin in Tournai, Belgium. The maps encompass the recto and verso of the last folio of a compendium containing three geographical and toponymical works by Saint Jerome. My work uncovers how the pair interact with their codicological context – in both textual and material senses. It is crucial to investigate the Tournai maps to fully understand medieval cartographical practice in the twelfth century, especially in light of recent material discoveries made by Paul Harvey in collaboration with the British Library. With the help of multispectral imaging systems, Harvey found that each map has a draft version beneath it. Since this discovery, the Tournai maps have not yet been the subject of any extensive study. What I consider most distinct about the maps is what they reveal about their maker. I build on Harvey's discoveries to explain how each of the erasures he brought to light reveals that the map maker was referring to topographical commentaries by Saint Jerome as he drew the maps. This is demonstrated by the fact that each place name on the original iteration of the Palestine map (which is now underneath the map of Asia) accords with the *Book of Hebrew Places*, the third text included in the manuscript. My interpretation of this evidence is also supported by my own discovery that the map maker wrote marginal notations in the body of the text, which suggests that these maps were specifically made to complement the Jerome works in the manuscript. My discovery not only links the maps with their textual companions, but the notes also link the map maker to the mechanics of the manuscript's assembly. I argue that when we consider how maps relate to the manuscripts within which they are bound we can gain insights about their use as tools that enliven their settings, bringing the monastic user into the geography of salvation.

To all of my friends, advisors and most especially, my loving family.

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INTRODUCTION

This dissertation focuses on a pair of maps depicting Asia and Palestine currently at the British Library (BL Add. MS 10049, fol.64r-v, **Figures 1 and 2**), made around 1150 at the Benedictine abbey of Saint Martin in Tournai, Belgium.[1] The maps encompass the recto and verso of the last folio of a compendium containing three geographical and toponymical works by Saint Jerome originally composed at the end of the fourth century. The first is his original work, the *Book of Hebrew Questions on Genesis* (fols. 1v-21r). Two translations of earlier Greek encyclopedias follow: the *Interpretation of Hebrew Names* (fols. 22v-43v), by Philo of Alexandria from the first century, and lastly the *Book of Hebrew Places* (fols. 44r-63v), originally titled (in-short) the *Onomasticon* written by Eusebius of Caesarea less than a century before Jerome translated it into Latin and added information about Christian sites in Jerusalem.

Measuring 250 x 320 mm, a map of Asia (**Figure 1**) fills folio 64 recto and depicts a wide spatial extent with 278 inscriptions. Modern-day Turkey is in the center, surrounded by the Aegean Sea; to the east is Mesopotamia, and further, the Indian Ocean. The map of Asia in particular accords with an older fifth-century map that was possibly at Bobbio abbey, but only a description

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[1] It is probable that the maps were made before 1159, because of their presence in a catalog of the library created that year. See Albert Derolez, et. al. Corpus Catalogorum Belgii: The Medieval Booklists of the Southern Low Countries. Provinces of Brabant and Hainault, Corpus Catalogorum Belgii / Koninklijke Academie Van Belgie, Vol. 4, (Brussels: Paleis der Academiën: 2001), 323. Thus, the date of c. 1150 is often given to the maps. Also see P.D.A. Harvey, *Medieval Maps of the Holy Land* (London: The British Library, 2012), 40.

remains.[2] The city of Jerusalem dominates the map of Palestine on the verso of folio 64, surrounded by 203 places (**Figure 2**). **Figures 3 and 4** show overlays translations of toponyms that I mention throughout this dissertation. I define Palestine according to Paul Harvey's interpretation, which is "…to be understood as the area between the river Jordan and Wadi Arab on the east, the Mediterranean on the west, and stretching from the mountains of Lebanon in the north to Wadi El Arish in the south."[3]

My work uncovers how the pair interact with their codicological context – in both textual and material senses. It is crucial to investigate the Tournai maps in order to fully understand medieval cartographical practice in the twelfth century, especially in light of recent material discoveries made by Paul Harvey (Emeritus Professor of History, Durham University) in collaboration with the British Library. With the help of multispectral imaging systems, they found that each map has a draft version beneath it. Since this discovery, the Tournai maps have not yet been the subject of any extensive study.

What I consider most distinctive about the maps is what they reveal about their maker. I build on Harvey's discoveries to explain how each of the erasures he brought to light shows that the map maker was referring to the Jerome works as he drew the maps. This is demonstrated by the fact that each place name on the original iteration of the Palestine map (the erasures appear under the map of Asia) accords with the *Book of Hebrew Places*, the third text included in the manuscript

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[2] See Patrick Gautier Dalché, "Eucher de Lyon, Iona, Bobbio: Le destin d'une *mappa mundi* de l'antiquité tardive," *Viator* 41 (2010): 1–22.

[3] Harvey, *Medieval Maps*, 1.

(**see Table 2**). The map also indicates *Betsura*, a place name that does not appear on other pre-thirteenth century medieval maps, but does appear in the *Interpretation of Hebrew Names* and the *Book of Hebrew Places*, the second and third texts in the manuscript.[4] This leads to the interpretation that while the Tournai maps relate to other maps of the period they were also made to complement the Jerome series in the manuscript.

My interpretation of this evidence is also supported by my own discovery that the map maker wrote marginal notations in the body of the text, which suggests that these maps were specifically made to complement the Jerome works in the manuscript. His notes not only link the maps with their textual companions, but they also link the map maker to the mechanics of the manuscript's assembly. Overall, I argue that when we consider how maps relate to the manuscripts within which they are bound we can gain insights about their use as heuristic tools that enliven their settings, bringing the monastic user into the geography of salvation.

The next section sets the Tournai Map Manuscript (henceforth "TMM") within its twelfth-century historical context, followed by the historiography on medieval maps and then the Tournai maps in particular. I then turn to an explanation of my methodology, which leads into a discussion on medieval diagrams, because the Tournai map maker authored several that I argue inform his design of the maps of Asia and Palestine. I introduce the concept of "performative

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[4] Harvey, *Medieval Maps*, 52; A number of sentences in this and the preceding paragraphs are adapted from my article, see LauraLee Brott, "Meet Your Maker: The Tournai Maps of Asia and Palestine," *The Portolan: The Journal of the Washington Map Society*, Issue 113 (2022): 7–22.

cartography" as I have defined it as a productive framework for understanding how the maps work within their codex setting and conclude with a brief outline of the chapters that follow.

Maps and monasticism in the twelfth century

In the twelfth-century Latin west, the shape of the earth changed for Christian communities. The idea of geography (geo- (γη), Greek for "earth"; -graphy (γραφή) Greek for "writing" or "drawing") became a vessel to translate monastic desires for Latin possession of the Holy Land. In this era of the Crusades, the church promoted warfare against non-Christian religions occupying and augmenting the city of Jerusalem, considered the holiest of places.[5] Thus, many surviving western religious maps from this period adapted older T-O models to situate Jerusalem at the very center, pictured there as a site of desire for monastic audiences contemplating and imagining pilgrimage to the holy places from afar, because they could not typically leave their sacred enclosures.[6] As part of the culture of images and texts produced about Jerusalem in this period, the TMM also functioned as an acknowledgement of the scholastic endeavors of Jerome, who lived in the Holy Land towards the end of his life, and translated Hebrew scripture.[7]

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[5] Evelyn Edson, *Mapping Time and Space: How Medieval Mapmakers Viewed Their World* (London: The British Library, 1997), 30.

[6] Edson, *Mapping Time and* Space, 41; Evelyn Edson, *The World Map, 1300-1492: The Persistence of Tradition and Transformation* (Baltimore: Johns Hopkins University Press, 2007), 31. Traveling within the mind, or "mental pilgrimage," is a concept that has been explored in-depth in recent years and is intricately explained by Elizabeth del Alamo as one aided by the architectural language of the cloister and abbey space. See Elizabeth del Alamo, *Palace of the Mind: The Cloister of Silos and Spanish Sculpture of the Twelfth Century* (Turnhout: Brepols, 2012), 137-174.

[7] See Susan Weingarten, *The Saint's Saints: Hagiography and Geography in Jerome* (Leiden and Boston: Brill, 2005).

Ultimately, compendia such as the TMM show contemporary scholars how, for medieval monastics, the scholastic study of the Holy Land was motivated by their long-standing devotional needs to contemplate *loci sancti* from afar, a need that becomes increasingly important as the twelfth-century progresses.[8]

Maps furthered the monastic-crusader endeavor because reflecting on, speaking, and witnessing Holy Land *loci sancti* were acts that not only confirmed the claims for a Christian Jerusalem but also placed the pious in close proximity. Maps are images that draw the viewer to places beyond, a "translocative" process.[9] With the Tournai Map Manuscript, I argue that translocation is not just achieved on a two-dimensional plane; instead, the Tournai maps and their associated texts work together to transform the manuscript itself into a dynamic heuristic research tool to explore the topography of the Holy Land, mediated by seeing, reading, and turning the pages. Far removed from the physical conflict for control of the Holy City, the maps translate crusader ideology into a spiritual conquest unfolding within the quires of the manuscript.[10] The following sections situate the perspective of this project within scholarly discourse on medieval maps, which begins in the late nineteenth-century.

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[8] See Harvey's explanation of the historical context in which twelfth-century Holy Land maps were made in Harvey, *Medieval Maps*, 3-4. A number of sentences in this paragraph are adapted from my article, see Brott, "Meet Your Maker."

[9] I am borrowing Daniel Connolly's terminology in *The Maps of Matthew Paris: Medieval Journeys Through Space, Time and Liturgy* (Woodbridge: Boydell Press, 2009), 30; also see Mary Carruthers's discussion on locational memory in *The Craft of Thought: Meditation, Rhetoric, and the Making of Images, 400-1200* (New York: Cambridge University Press, 1998), 10-14.

[10] A number of sentences in this paragraph are adapted from my article. See, Brott, "Meet Your Maker."

Historiography: medieval maps

The entrance of medieval maps into European academic study in the late nineteenth century coincided with the growing epistemic ethos of "antiquarianism." Antiquarians approached historical subjects through the lens of material artifacts. The disciplines of cartography, archaeology, the history of art, and material culture were born during this time.[11] Medieval maps were archaeological findings, uncovered behind dusty shelves or waterlogged old scriptoria (as in the case of the Ebstorf map, found between 1830-2).[12] The Tournai Map Manuscript left Saint-Martin as a result of the abbey's dissolution in 1796 in the wake of the French Revolution. The contents of the medieval library were dispersed to private collections throughout Europe, and eventually to the British Library (the TMM was acquired in 1844) and the Bibliothèque Nationale de France in Paris.[13]

The methodologies of antiquarian cartographic scholarship have remained topical for scholars to critique.[14] For example, the choice to dismember the Ebstorf world map (c. 1300), painted on thirty pieces of parchment, in the late nineteenth century led to the loss of material containing

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[11] Peter Miller, *History and Its Objects: Antiquarianism and Material Culture Since 1500* (Ithaca, 2017), 14-15.

[12] Marcia Kupfer, "Worlds Enmeshed," in *At Home in the World: The Life and Art of Gulammohammed Sheikh*, ed. Chaitanya Sambrani, 278–93, (New Delhi, India: Tulika Books in association with Vadehra Art Gallery, 2019), 279.

[14] David Woodward addresses the late nineteenth century map historian perspective, see Woodward, "Medieval Mappaemundi," in *The History of Cartography, Volume One: Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, edited by J.B. Harley and David Woodward, (Chicago and London: The University of Chicago Press, 1987), 293.

medieval script as Marcia Kupfer has shown.[15] Conservators at the British Museum destroyed portions of the Hereford world map (c.1300) around the same time.[16] The damages that these medieval maps suffered were in-part driven by nationalistic motivations. There was a race to define the "History of Cartography" and a place in that "History" was determined by access; the Ebstorf map was disassembled, and the Hereford map cleaned to prepare for the productions of facsimiles. Images of these maps made their way into large-scale atlases distributed throughout Europe.[17]

The methods of the antiquarians were problematic, but their work paved the way for academic inquiry. The atlases of the Viscount of Santarém (which includes a drawing of the Tournai map of Asia)[18] and Edmé-François Jomard perpetuated knowledge on historical maps by placing them within visual context of one another.[19] Plate 13 in Jomard's *Les Monuments De La Géographie*

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[15] Kupfer, "Worlds Enmeshed," 280.

[16] Martin Bailey, "The Rediscovery of the Hereford Mappamundi," in *The Hereford World Map: Medieval World Maps and Their Context*, ed. P.D.A. Harvey, 45–78 (London: The British Library, 2006), 45.

[17] See Anne Godlewska, "Jomard: The Geographic Imagination and the First Great Facsimile Atlases," in *Editing Early and Historical Atlases*, ed. Joan Winearls, 109–36, (Toronto: University of Toronto Press, 1995); also see Angelo Cattaneo's exploration on the Fra Mauro map in "The Confluence of Politics and Scholarship the Mappa Mundi Within the Dawning of the History of Cartography," in *Fra Mauro's Mappa Mundi and Fifteenth-Century Venice*, 305–25, (Turnhout, Belgium: Brepols, 2011).

[18] Manuel Francisco de Barros e Sousa, visconde de Santarém, *Atlas composé de cartes des XIV-XVII siècles*, (Paris: 1841-2); Harvey, *Medieval Maps*, 41.

[19] Santarém's and Jomard's facsimiles were both published between 1841-1842. See Matthew Edney, "The Copy: Printing Processes and the Reproduction of Early Maps, 1830-1945," *The Portolan: Journal of the Washington Map Society*, Issue 113, (Spring 2022), 48-63.

features a sequence of ten medieval map examples from disparate manuscripts and contexts, ranging from the tenth to the fifteenth centuries. Jomard's collage of medieval maps was likely the first occasion that prompted their comparison, which becomes a key methodology in medieval map scholarship.[20]

Two works produced in the late nineteenth century shaped cartographic scholarship. Charles Raymond Beazley's *The Dawn of Modern Geography* (1897) focused on how pilgrimage and the Crusades structured geographical knowledge in the later Middle Ages, and the ways in which this knowledge was assimilated in the practices of map-making.[21] While his text is tainted by the notion of the medieval "dark ages," i.e. a period in which Ptolemaic map making was "lost," his work was among the first to place medieval maps within their historical contexts. Konrad Miller's three-volume series, *Mappaemundi: Die ältesten Weltkarten* (1895), is still the point of departure for scholars focusing on the toponymical structure of the medieval maps featured in his cohort. His translations are detailed and link each toponym to geographical descriptions by classical authors such as Pliny the Elder, (first century, *Historia Naturalis* or Natural Histories) Paulus Orosius (fifth century, *Historiarum adversum Paganos* or History Against the Pagans), Claudius Julius Solinus, (third century, *Collectanea rerum memorabilium* or Collection of

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[20] Edmé-François Jomard, *Les Monuments de la géographie ou recueil d'anciennes cartes* (Paris: Duprat, 1842). For more on the atlases see Edney, "The Copy."

[21] Charles Raymond Beazley, *The Dawn of Modern Geography*, vol.1 (London: J. Murray, 1897), 1–11.

Memorable Things), and Julius Honorius (fourth century, *Cosmographia*).[22] Miller exposed their reliance on both classical and medieval toponymical sources, including the work of Isidore of Seville, whose seventh-century *Etymologarium sive originum libri* (The Etymologies) provides a detailed description of the world in the fourteenth book.

Around the 1980's there was a shift in cartographical discourse towards incorporating a broader understanding of maps within their own socio-cultural milieus. Medieval maps once studied primarily as the products of forgotten classical scientific thought, were reinterpreted as documents that reveal cultural standards of those making, viewing, or commissioning them. Geoff King writes, "the maps of the Middle Ages were regularly used as metaphors to express abstract ideas. However inaccurate they may seem to us, they were efficient vehicles for the transmission of certain world views. They were accurate charts of the beliefs of their time."[23]

David Woodward's *History of Cartography Project* at the University of Wisconsin-Madison provided the first extensive history of medieval maps guided by new cultural geographic approaches. Woodward closely investigated the contexts of medieval maps in terms of their connection with late-antique and medieval geographical sources. He established categories still

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[22] Konrad Miller, *Mappaemundi Die Ältesten Weltkarten: Herausgegeben Und Erläutert*, 6 vols. (Stuttgart: Jos. Roth'sche Verlagshandlung, 1895); also see Dan Terkla, Preface to *A Critical Companion to English Mappaemundi of the Twelfth and Thirteenth Centuries*, ed. Dan and Nick Millea, xxv–xxiv, (Woodbridge: Boydell Press, 2019), xx; also see Martin Foys' discussion on how Virtual Mappa 2.0 provides an interactive engagement with the work of Miller, while also updating his translations. See Martin Foys, "Medieval Manuscripts: Media Archaeology and the Digital Incunable," in *The Medieval Manuscript Book: Cultural Approaches,* eds. Michael Johnston and Michael Van Dusser, (Cambridge University Press, 2015), 129.

[23] Geoff King, *Mapping Reality: An Exploration of Cultural Cartographies* (London: Macmillan Press, 1996), 31.

important for scholars today.[24] Two examples are "schematic" and "non-schematic" T-O maps that arrange the world (the "O" shape) into three parts coinciding with the three known continents: Asia in the top semi-circle (the cross of the "T") and Africa in the bottom right section, and Europe in the bottom left (**see Figure 5**). T-O maps are found in the margins of copies of Isidore's *Etymologiae* as well as his *De natura rerum*.[25] The maps, that date from as early as the seventh century,[26] sometimes follow a list-type format and name the numbers of countries in each major zone, or the sons of Noah.[27] According to Woodward, over two hundred medieval maps fit within the Isidorian category.[28] While the maker of the Tournai maps, or the exemplars from which they derived, certainly referred to Isidore, they do not occupy any singular category in Woodward's classification. He only briefly discusses the map of Asia in relation to its emphasis on Anatolia, and the map of Palestine is only mentioned in a footnote.[29]

Scholars continue to build on the cultural geographic discourse present in the *History of Cartography* series. Evelyn Edson's seminal works demonstrated that medieval maps that elaborate on the Isidorian T-O model by situating Jerusalem as a place within the "T" cross section, mirror the monastic desire to reach the Holy City, because for this audience of Christian

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[24] Woodward, "Medieval Mappaemundi," 294-95; Also see Edson's response to Woodward's scheme, Edson, *Mapping Time and Space*, 2-4.

[25] Woodward, "Medieval Mappaemundi," 343-358.

[26] Saint Gall, Stiftsbibliothek, Codex 237, fol. 1r, seventh century.

[27] Burgerbibliothek, Bern, Codex 417, fol. 88v, late ninth century.

[28] Woodward, "Medieval Mappaemundi," 343.

[29] Woodward, "Medieval Mappaemundi," 288, 368.

monks sequestered within their monasteries, pilgrimage was only possible within their minds.[30] The T-O arrangement described by Isidore, prompted readers to contemplate Ezekiel 5.5, "This is Jerusalem, I have set her in the midst of the nations, and the countries round about her" as a "statement of its spiritual centrality."[31]

The role of memory is a strand of medieval map scholarship crucial for this dissertation. As Edson elucidated, for an audience of Christian monks (especially those living during the crusades) contemplating the Holy City from afar was a crucial skill within their devotional practice. Scholars have since built on the context and concept of the monastic mind, and the work of Mary Carruthers is foundational. Her *Book of Memory* and *Craft of Thought* place maps and diagrams in the framework of their reference as *picturae* as cognitive instruments discussed by medieval theologians and teachers such as Hugh of Saint Victor (1096-1141). She concludes that the Plan of Saint Gall,[32] (**Figure 6**) is a "meditation machine" that draws contemplative power from its relationship with monastic architecture, designed to be traversed in meditative ritual. As a *pictura,* the Plan, like *mappaemundi*, "…[is] made for the work of memory: learning and meditation. *Pictura* is a cognitive instrument, serving invention in the same manner as words do."[33]

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[30] Edson, *The World Map*, 31; Edson, *Mapping Time and Space*, 41.

[31] "Douay-Rheims Bible: Ezekiel 5:5," last modified 2017, https://drbo.org/chapter/31005.htm; Edson, *Mapping Time and Space*, 165; also see Terkla, Preface, xix.

[32] Saint Gall, Stifstbibliothek, Cod. Sang. 621.

[33] Carruthers, *The Craft of Thought*, 201.

Recent map scholarship further explores the writings of Hugh of Saint Victor. I draw on those exploring his *Mystic Ark*, (which describes the construction of a diagram that includes a *mappaemundi* at the center that I discuss further in Chapter Four), *Descriptio mappa mundi*, and finally his *Three Best Memory-Aids for Learning History*. These three works were completed between 1126 and 1130.[34] Citing Hugh's *Descriptio*, Alessandro Scafi found the text's "spatially ordered sequence of events" represented on medieval maps: Paradise, as the beginning is located in the east, and to the far west, the location of the Altars of Alexander or the Pillars of Hercules, created towards the end of Biblical time.[35] Several medieval maps have been associated with the *Descriptio* directly, namely the Munich map.[36] identified by Patrick Gautier Dalché as well as the Psalter world and list maps (**Figure 9**), identified by Bettina Shöller.[37]

Relevant for this dissertation are conversations that consider Hugh's concept of the *ductus*, which Dan Terkla defines as "apparent or unapparent structures that enable and control a viewer's ocular journey across [a map's] surface."[38] Marcia Kupfer states that it is the "reading road" of Hugh's *Descriptio*; the ductus "generates a cognitive framework for the organization

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[34] Dan Terkla, "Introduction: Where to Fix Cadiz?", in *A Critical Companion to English Mappaemundi of the Twelfth and Thirteenth Centuries*, ed. Dan Terkla and Nick Millea, 1–19, (Woodbridge, Suffolk, UK; Rochester, NY, USA: The Boydell Press, 2019), 13-4.

[35] Scafi, *Mapping Paradise*, 126-7.

[36] Munich, Bayerische Staatsbibliothek, Clm 10058, fol. 154v; c. 1130.

[37] Patrick Gautier Dalché, *La "descriptio mappe mundi" de Hugues De Saint-Victor: Texte inédit avec introduction et commentaire*, (Turnhout: Brepols, 1988), 81–85; Bettina Shöller, *Wissen Speichern, Wissen Ordnen, Wissen Übertragen: Schriftliche Und Bildliche Aufzeichnungen Der Welt Im Umfeld Der Londoner Psalterkarte*, (Zurich: Chronos, 2015).

[38] Terkla, "Introduction," 6.

and retrieval of information."[39] Kupfer traces *ducti* on the Hereford map, pointing to the vertical alignment of the vignettes of Christ crucified above Jerusalem in the center, with Christ as Majesty enthroned in the top central panel.[40] Following the direct visual path east from Jerusalem to Christ signifies a form of "contemplative ascent."[41] Recent lectures by Asa Mittman identify *ducti* on the Hereford map that relate to Hugh of Saint Victor's geographically ordered theology. Mittman argues that location of the "Other" as well as monstrous peoples at the edges of the map structure specific viewing paths that relate to the beginning and end of times.[42] As he writes in *Maps and Monsters*, "…Others were monstrous, not only in the metaphorical way in which we now use the term, but in the most literal sense."[43] Part of the visual scheme includes the placement of the Path of Exodus on the same horizontal axis as the realm of Gog and Magog, creatures of the Apocalypse mentioned in *Revelations* 20:7-9.[44] Jerusalem sits below, at the

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[39] Marcia Kupfer, "Traveling the *Mappa Mundi*: Readerly Transport from Cassiodorus to Petrarch," in *Maps and Travel in the Middle Ages and the Early Modern Period: Knowledge, Imagination, and Visual Culture*, eds. Nirit Ben-Aryeh Debby, Katrin Kogman-Appel, and Ingrid Baumgärtner, 1–17, (Berlin: De Gruyter, 2019), 26.

[40] Kupfer, "Traveling the Mappa Mundi," 33-34.

[41] Marcia Kupfer, "Reflections in the Ebstorf Map : Cartography, Theology and Dilectio Speculationis," in *Mapping Medieval Geographies: Geographical Encounters in the Latin West and Beyond, 300-1600*, edited by Keith D. Lilley, (Cambridge: Cambridge University Press, 2013), 125.

[42] Asa Mittman, "Far From Jerusalem: The Exclusion of Jews on Christian Maps" (lecture, University of Wisconsin–Madison, October 15, 2020); also see his discussion on Gog and Magog in *Maps and Monsters in Medieval England*, (London and New York: Routledge, 2006), 55–59.

[43] Mittman, *Maps and Monsters*, 63.

[44] "Douay-Rheims Bible: Revelations 20:7-9," last modified 2017, https://drbo.org/drl/chapter/73020.htm.

center of line, which then directs the eye directly upward and east towards to Paradise.[45] I bring Mittman and Kupfer's "*ductal*" methodologies in Chapter Four.

My work situates the Tournai Map Manuscript within the contemplative and exegetical power of Hugh of Saint Victor's image-based teachings. I also draw on the recent perspectives of Matthew Edney's *Ideal of Cartography*, which makes a distinction between "cartography" and "map making." To Edney, "map making" or "mapping" encompasses a broader definition, which includes the performance of a spatialized activity, acting in reciprocity to J.B. Harley's statement over thirty years ago, that maps "are far from being exclusively spatial." [46] I bring these perspectives together into the term "performative cartography" to explain the multitude of cartographic dimensions of the Tournai map manuscript.[47] I argue cartography is inlaid in the processes of both making and using the entire codex as a tool to translocate the user into Holy Land. The next two sections focus on the Tournai maps. I first address their history in scholarship and follow by explaining why they are distinct from the corpus of twelfth-and early thirteenth-century maps. I then summarize the discussions on their relationship with the Jerome series in the TMM.

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[45] Asa Mittman, "Seeing Across the World: How Medieval Mapmakers Brought Their Monsters Home" (lecture, The Washington Map Society, Washington D.C., March 8, 2022).

[46] Matthew H. Edney, *Cartography: The Ideal and Its History*, (Chicago: University of Chicago Press, 2019), 7, 12; J. B. Harley, *The New Nature of Maps: Essays in the History of Cartography*, (Baltimore: Johns Hopkins University Press, 2001).

[47] J. B. Harley, *The New Nature of Maps: Essays in the History of Cartography* (Baltimore and London: Johns Hopkins University Press, 2001).

The Tournai maps

The Tournai map of Asia was featured in the 1841 *Atlas composé de cartes des XIV-XVII siècles*, assembled by the Viscount of Santarém.[48] The exclusion of the map of Palestine signals the beginning of a trend in scholarship that tends to separate the pair. David Woodward only discussed the "Jerome" map of Asia and mentioned the map of Palestine in a footnote at the end of his chapter.[49] The maps often appear separately in scholarship because they depict different areas of the world thus reflecting different traditions of map making. Patrick Gautier Dalché has recently proven that the map of Asia is derived from a large fifth-century world map, citing a description at Bobbio abbey that includes the same detailed inscription for the island of Crete: *"*The Island of Crete, with the seven Cyclades, is a province of the Greeks. It has one hundred cities."[50] While the map of Asia is related to the late-antique Bobbio description, the map of Palestine includes places that are distinctly medieval, such as the Trees of the Sun and Moon from the *Alexander Romance*.[51]

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[48] Manuel Francisco de Barros e Sousa, visconde de Santarém, *Atlas composé de cartes des XIV–XVII siècles*, (Paris: [n.p] 1841–1842); Harvey, *Medieval Maps*, 41.

[49] Woodward, "Medieval Mappaemundi," 288, 368.

[50] See Dalché, "Eucher de Lyon, Iona, Bobbio," 1-22.

[51] Asa Mittman, Martin Foys, Cat Crossley, and Heather Wacha, eds., "Psalter World Map (British Library Add. MS 28681, f. 9r): Arbor Solis [and] Arbor Lune," in *Virtual Mappa,* edited by Martin Foys, Heather Wacha *et al*. Schoenberg Institute of Manuscript Studies, 2020: https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82; Susan Weingarten, *The Saint's Saints: Hagiography and Geography in Jerome*, (Leiden and Boston: Brill, 2005), 206.

The map of Palestine is considered within the new "Holy Land" maps subgroup, recently solidified by Paul Harvey's *Medieval Maps of the Holy Land* and Pnina Arad's *Christian Maps of the Holy Land.* These texts set maps that focus on the areas surrounding Jerusalem deeper within the contexts of crusades and pilgrimage literature.[52] Arad connects the map of Palestine to maps of Jerusalem, or "circular-Jerusalem" maps, which are derived from pilgrimage writings (**see Figure 7**).[53] The connection between the icon that encases the city of Jerusalem on the map of Palestine and circular-Jerusalem maps is, in fact, striking. **Figure 4** provides translations of place names on the area around Jerusalem on the Tournai map of Palestine and indicates 24 places that are on a map currently at the Bibliothèque Royale in Brussels, and the Hague map (**see Figure 8**) both from the twelfth century.[54]

On a visual level, while there is a toponymic relationship between the Tournai map of Palestine and the Hague and Brussel maps, I argue that the closest relationship between the Tournai map of Palestine and contemporary circular-Jerusalem maps is the icon that surrounds the city itself. The inscription is enclosed within a double circle, which represents fortified city walls, adorned with four gates in the upper half: in the north, east and south. One of the gates rests around the southeast and is directly beneath Mount Zion, capped by the Tower of David. The easterly

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[52] Harvey*, Medieval Maps*, 1-13.

[53] Pnina Arad, *Christian Maps of the Holy Land: Images and Meanings*, (Turnhout, Belgium: Brepols, 2020), 3-5.

[54] Brussels, Bibliothèque Royale in Brussels MS 9823, fol. 157r; Hague, Koninklijke Bibliotheek, MS 76 fol. 5r.

location of the Tower of David contrasts with the Hague and Brussels maps that place it in the south or west portion of the city where Mount Zion is also located, just outside the city walls.[55]

While the map of Palestine fits well within the context of Holy Land maps from the pilgrimage era, the map of Asia has received less consideration in this context. Paul Harvey's chapter in *Medieval Maps* focused mostly on his newly found material analysis (discussed in the next section).[56] He concludes his chapter by stating that "here is a first attempt at unravelling the tangled composition of the Tournai maps."[57] I seek to help unravel the maps' mysteries by placing them in relation to one another, as well as to the Jerome texts contained within the same codex. I contend that the map of Asia warrants more attention in the "Holy Land" map context, and both maps deserve more attention regarding their relationship with world maps. They are distinct from both types however, first because of their appearance (described in Chapter One) and second, for their omission of several prominent features that appear on world maps of the twelfth and early thirteenth centuries, described below.

First, their treatment of the "monstrous peoples" described by Pliny the Elder's *Historia Naturalis*, differs from the later Psalter World, Hereford and Ebstorf maps (**Figures 9, 10, 11**). These later maps feature paintings of human-animal hybrids prominently in their southwest borders. The Tournai maps relate to the "monstrous peoples" in a few inscriptions without adornment. On the map of Asia, an inscription "Hippopodes have horses' legs," appears in the

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[56] Harvey, *Medieval Maps*, 40-59.

[57] Harvey, *Medieval Maps*, 59.

northeastern-most (upper left) corner. The "Hippopodes" appear on the Hereford map and were described by Pliny the Elder in the first century.[58] On the map of Palestine, the indication of the *Gargala* and *Capi* Rivers is likely a derivative from the *Liber Monstrorum*, a late seventh or early eighth-century text cataloging "monsters" or "wonders" of the East featured in Greek legends.[59] The *Gargala* and *Capi* rivers do not appear on other maps of the time. In addition to the "monstrous" inscriptions, the southwest regions on both maps are populated with places mentioned in Jerome and Isidore.[60] The specification of "Egyptian Ethiopians" and "Indian Egyptians," on the map of Palestine suggests that the map maker was referencing Isidore's description of Ethiopia.[61]

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[58] Heather Wacha and Helen Davies, eds., "Vercelli Map (Vercelli, *Archivio Capitolare di Vercelli,* Rot. Fig. 6): Hippopodes," in *Virtual Mappa 2.0*, eds. Martin Foys, Heather Wacha et al. (Philadelphia: Schoenberg Institute of Manuscript Studies, 2020): https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82; Karl Friedrich Theodor, *Naturalis Historia: Pliny the Elder*, (Teubner, 1906), 4.27.

[59] See LauraLee Brott, Martin Foys, and Heather Wacha, eds., "Tournai Map of Palestine (British Library Add. MS 100049, f. 64r): Capi River [and] Gargala River" in *Virtual Mappa 2.0*, eds. Martin Foys, Heather Wacha et al. (Schoenberg Institute of Manuscript Studies, forthcoming): https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82, forthcoming; For the *Marvels of the East* see John Block Friedman, *The Monstrous Races in Medieval Art and Thought*, (Syracuse: Syracuse University Press, 2000).

[60] Ethiopia appears on folio 23r in the *Book of Hebrew Questions on Genesis*, for Genesis 2:13, see Paul de Lagarde, trans. and ed., *S. Hieronymi Presbyteri Opera, Pars I. Opera Exegetica, 1* (Turnhout: Brepols, 1959), 60.

[61] On Isidore's description of Ethiopia: "Ethiopians are so called after a son of Ham named Cush, from whom they have their origin. In Hebrew, Cush means "Ethiopian." This nation, which formerly emigrated from the region of the river Indus, settled next to Egypt between the Nile and the Ocean, in the south very close to the sun. There are three tribes of Ethiopians: Hesperians, Garamantes, and Indians. Hesperians are of the West, Garamantes of Tripolis, and the Indians of the East]. See W.J. Lewis, Stephen A. Barney, and J. A. Beach and Oliver Berghof, trans., *The*

The Munich map (c.1300) omits the monstrous races entirely, which to Nathalie Bouloux speaks to the map's close relationship with Hugh of Saint Victor's *Descriptio*.[62] She writes, "The prologue [of Hugh's *Descriptio*] says nothing about whether it can serve the cause of symbolic exegesis; rather, it limits the master's role to describing what is real, which a reading of the *Descriptio* confirms."[63] She argues that Hugh's "realistic" approach also accounts for the Munich map's omission of Paradise. Paradise, rendered as a small vignette at the easternmost axis on the Psalter and Hereford maps, is also absent from both Tournai maps. As Alessandro Scafi has pointed out, all four rivers appear on the map of Palestine (*Tigris*, *Euphrates* and *Ganges* or the Biblical *Phison* and the Nile or the Biblical *Gihon*), while only three appear on the map of Asia (excluding the Nile or the *Gihon*).[64] On other world maps from the period (see **Figures 9-11**), Paradise is located directly up and east of these rivers.

The Tournai maps also omit the Path of Exodus near the Red Sea, which is emphasized on the Munich, Psalter, Hereford and Ebstorf maps (**Figures 9-11)**. Additionally there are no

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Etymologies of Isidore of Seville, (Cambridge University Press: Cambridge University Press, 2006), 193.

[62] Munich, Bayerische Staatsbibliothek, Clm 10058, fol. 154v; c. 1130; Nathalie Bouloux, "The Munich Map (c. 1130): Description, Meanings and Uses." In *A Critical Companion to English Mappae Mundi of the Twelfth and Thirteenth Centuries*, eds. Dan Terkla and Nick Millea, 92–111, (Woodbridge, Suffolk, UK; Rochester, NY, USA: Boydell Press, 2019), 108-110.

[63] Bouloux, "The Munich Map," 105.

[64] Alessandro Scafi, *Mapping Paradise: A History of Heaven on Earth*, (London: The British Library, 2006), 142; Flavius Josephus in the first century identified that the Nile is the *Gihon* and the Ganges the *Phison*. See Alessandro Scafi, *Maps of Paradise*, (London: The British Library, 2013), 41.

indications of Gog and Magog from the *Book of Revelations*,[65] though the gates that enclose their territory are included in a pair of inscriptions on the map of Asia: "Caspian Gates, as some call [it]" and "Caspian Gates."[66] The absence of visual indications of Gog and Magog (present on **Figures 9-11, 21**) and the Path of Exodus within the Red Sea evokes Asa Mittman's discussion of the *ductus* that links their locations on the Herford map.[67] The mnemonic line that connects the Red Sea and the realm of Gog and Magog create an exegetical connection that the Tournai maps lack, which is also apparent on the Psalter, Munich and Ebstorf world maps.[68]

The Tournai maps are thus composites of multiple traditions. They relate to circular-Jerusalem maps and pilgrimage texts, late-antique and twelfth century world maps, as well as a variety of

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[65] Douay-Rheims Bible: Revelations 20:7-9," last modified 2017, https://drbo.org/drl/chapter/73020.htm.

[66] See Brott, et al. eds., eds., "Tournai Map of Asia: Eoae Gentes," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82; the note for "Eoae Gentes" in *Virtual Mappa 2.0* points out that this inscription was mistranslated by Miller as *Gog gentes*. Miller perhaps identified this inscription because its location matches the placement of Gog and Magog on contemporaneous maps. Inscriptions indicating the Caspian Gates that surround Gog and Magog on other maps appear twice on the Tournai map of Asia. *Eoae Gentes* has been translated to "Peoples of the East," which warrants discussion, but is currently outside the realm of this project. Given Asa Mittman's work on the monstrous peoples and their connection with the medieval conception of marginal "Other," it is plausible to consider *Eoae Gentes* in relation to Gog and Magog – not to their Biblical story but through proximity to the Caspian Gates on the map of Asia. Additionally, *Eoae Gentes* should be understood in relation to the *Marvels of the East*, BL Cotton Vitellius A.xv, 10th century; see Mittman, *Maps and Monsters*, 45-59, and for further reference see Friedman, *The Monstrous Races*; Brott et al., eds. "Tournai Map of Asia: Caspie Porte 1 [and] "Caspie Porte 2," in *Virtual Mappa 2.0,* edited by Martin Foys, Heather Wacha et al. (Schoenberg Institute of Manuscript Studies, 2020): https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82.

[67] Mittman, "Far From Jerusalem" (lecture, University of Wisconsin-Madison, October 15, 2020).

[68] Kupfer, "Traveling the Mappa Mundi," 33-4.

other medieval geographical works. I argue that the Tournai maps construct their own pathways of exegetical contemplation, most prominently through their association with the Jerome series they are connected to. The next section covers the historiography of scholarship that explores their relationship with the Jerome, first investigated by Konrad Miller.

Relationship with Jerome

The third volume of Konrad Miller's *Mappamundi* contains his translations of the Tournai maps. He linked many place names to the Jerome series in the manuscript. In his introductory essay to the maps, he suggested that the maps were the work of Saint Jerome himself because of the close relationship between the map of Palestine and the *Book of Hebrew Places*. Miller's argument of a fourth-century authorship was also based on the map's close connection to classical sources, such as Pliny's *Natural History* and Solinus's *Collection of Memorable Things*.[69] Miller's assertion, supported by Charles Raymond Beazley, was disproved by Paul Harvey who traced the hand to Saint-Martin in Tournai.[70]

Evelyn Edson first noticed that Miller did not identify each place name listed in the Jerome series included on the maps.[71] **Tables 3 and 4** provide updated lists of the place name relationships between both maps and the three Jerome works in the manuscript. This is the first thorough analysis of the linkages between the maps and the Jerome series since Miller. This gap in

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[69] Konrad Miller, *Mappaemundi: Die ältesten Weltkarten*, volume 3, (Stuttgart: Roth, 1896), 2-4.

[70] Ibid; Beazley, *The Dawn of Modern Geography*, 606-7; Harvey, *Medieval Maps*, 45-6.

[71] Edson, *Mapping Time and Space*, 27; The mistakes in his translations are corrected in *Virtual Mappa 2.0*, see Brott, et al. eds., "Tournai Map of Asia," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82; translations of the Tournai map of Palestine are forthcoming.

scholarship perhaps exists because each was composed within separate and independent traditions, with the first two being translations of Greek texts: the *Interpretation of Hebrew Names* by Philo of Alexandria (first century), and the *Book of Hebrew Places* by Eusebius of Casearea (early fourth century).[72] Yet, because the map maker knew his maps would be connected to the Jerome series (as I explore in Chapter Two), we are prompted to investigate the ways in which the maps functioned as visual indices to Jerome's texts.[73]

While scholars have acknowledged the link between the *Book of Places* and the map of Palestine (as **Table 1** shows), a recent debate has surfaced on their relationship.[74] Milka Levy-Rubin explored further how the map of Palestine relates to Jerome's *Book of Places*, while also pointing to inscriptions that relate to crusader culture such as the "Desert where the Lord fasted."[75] Pnina Arad has challenged Levy-Rubin's approach, arguing the map of Palestine instead looks to "circular-Jerusalem" maps, which were informed by early pilgrimage writings.[76] Arad's

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[72] For a wider exploration on the relationship between medieval maps and geographical texts, see Patrick Gautier Dalché, "Maps in Words: The Descriptive Logic of Medieval Geography, From the Eighth to the Twelfth Century," in *The Hereford World Map: Medieval World Maps and Their Context*, edited by P.D.A. Harvey, 223–42, (London: The British Library, 2006).

[73] On patterns of usage of medieval manuscripts see Kathryn M. Rudy, "Dirty Books: Quantifying Patterns of Use in Medieval Manuscripts Using a Densitometer," *Journal of Historians of Netherlandish Art* 2, no. 1–2 (2010): 1–44.

[74] Edson notes the relationship between the Tournai map of Palestine and the *Book of Hebrew Places* but states that there is "far from perfect correspondence." See Edson, *Mapping Time and Space*, 27.

[75] Milka Levy-Rubin, "From Eusebius to the Crusader Maps: The Origin of the Holy Land Maps," in *Visual Constructs of Jerusalem*, ed. Bianca Kühnel, Galit Noga-Banai, and Hanna Vorholt (Turnhout: Brepols, 2014), 253–263.

[76] Arad, *Christian Maps of the Holy Land*, 45.

argument is convincing, because as shown earlier, the icon surrounding the city of Jerusalem resembles a typological model found on the Brussels and Hague examples. The link with pilgrimage writings is also clear because the map maker originally inserted a few paragraphs of text on the original map of Palestine that he subsequently erased (**see Figure 12**; I explain his erasures beneath the map of Asia in-detail in Chapter Two). The paragraphs on original the map of Palestine were likely copied from a pilgrimage itinerary, though Arad does not discuss the paragraphs that were erased.[77] Connecting the map maker further to pilgrimage literature, the map maker also copied a portion of Antonius of Piacenza's itinerary that appears in an additional manuscript produced at Saint-Martin (BL Add. MS 15219, fols. 2r-2v). The itinerary includes multiple sites included on both maps.[78]

Pilgrimage texts, however, referred to the *Onomasticon* and Jerome's translation into the *Book of Hebrew Places*.[79] Therefore, the maps are a compendium of pilgrimage literature, world maps, circular-Jerusalem maps, and a number of medieval and classical sources that I discuss further in throughout this dissertation. The most important resource and inspiration, however, was Jerome, specifically because of their codicological connection. The rationale for my own approach to the relationship between the Jerome series in the TMM and both Tournai maps derives from my

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[77] See Harvey, *Medieval Maps*, 52.

[78] Harvey, *Medieval Maps*, 41.

[79] For the relationship between the *Onomasticon / Book of Hebrew Places* and pilgrimage texts, see Thomas O'Loughlin, *Adomnán and the Holy Places: The Perceptions of an Insular Monk on the Locations of the Biblical Drama* (London and New York: T & T Clark, 2008), 24-25.

discovery of the map maker's hand throughout the manuscript. I describe my method in the next section.

Materiality as method

Paul Harvey's chapter on the Tournai maps in *Medieval Maps of the Holy Land* is the most up-to-date and extensive investigation of the pair. His work is especially important for my project. Unlike all other chapters in *Medieval Maps*, Harvey undertook extensive material analysis and prompted the British Library to utilize fourth-phototonics multispectral imaging systems to research the erasures beneath both maps that Miller first noted in his *Mappaemundi* (see **Figure 12**). First, he found the map of Asia has a draft map of Palestine beneath it. Second, the map of Palestine originally encompassed a wider expanse that included Anatolia. I explore the draft maps fully in Chapter Two and conclude that because each place name on the original map of Palestine (now beneath the map of Asia) is mentioned in the manuscript (see **Table 2**), the Tournai map maker's re-working of the map folio can be understood as his very process in designing the maps to work with the content. This conclusion is furthered by the evidence of his handwriting throughout the body of the manuscript, also explored in depth in Chapter Two.

Harvey's discoveries of the drafts beneath the maps of Asia and Palestine led to the methodology driving this dissertation. I foreground material analysis, which in-part involves understanding the assembly and production of the contents in a manuscript as something that carries meaning.[80]

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[80] My approach is parallels Keith Busby's "new codicology." See Keith Busby, *Codex and Context: Reading Old French Verse Narrative in Manuscript*, (Amsterdam and New York: Rodopi, 2002).

This could relate to a wider socio-political and religious culture driving the placement of materials together, like the works in the TMM. As I propose in Chapter Three, the surge in the translation of works by Church Fathers is related to crusader and pilgrimage culture, and the grouping of the Jerome texts together in tandem with a pair of maps warrants more consideration than has been given. My approach represents a new strand in medieval map scholarship, aligned with two recent lectures by Marianne O'Doherty and Pnina Arad who each explored relationships between circular-Jerusalem maps and the manuscripts they are connected to.[81] Foregrounding a material perspective, O'Doherty attributed lines between toponyms on a fifteenth century map in Cambridge Corpus Christi College MS 426 as later additions representing routes detailed in the manuscript's copy of the *Travels of Sir John Mandeville*.[82]

My dissertation combines a codicological perspective with Harvey's material approach to the Tournai maps. I have found that on each of the three folios that begin the Jerome works, notes in the map maker's hand appear as instructions for the artist who illustrated the larger letters that ornament the incipit texts of each Jerome book in the manuscript. His notes suggest that he was not only aware of the texts that the maps would be associated with but also participated in assembling this particular codex. For instance, in the third book, he writes on folio 43 verso, "The prologue of Eusebius / Jerome's Book of Names begins." Directly adjacent to "Ararat" is a

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[81] Pnina Arad, "Twelfth-Century Maps of the Holy Land: Image, Context, Function," (lecture, University of Wisconsin, Madison, October 29, 2020); Marianne O'Doherty, "The Holy Land Map in Cambridge, Corpus Christi College, MS 426 in Context" (lecture, University of Leeds, Leeds, UK, July 2, 2019).

[82] Cambridge, Corpus Christi College, MS 426, fol. 155r; see "Parker Library on the Web: Colucius Pierius de fato. Bacon, Beda, Joh. Mandeville," https://parker.stanford.edu/parker/catalog/qc358nk7737.

note that also includes the first few lines of the main text – "Ararat is asserted to be in Armenia.." the mountain where Noah's Ark is. The Ark is represented on both maps – on Palestine the label reads "Armenian Mountains, where the Ark settled" (see **Figure 13**). I discuss each of the map makers notes in the TMM in detail in Chapter Two.

My findings confirm Michelle Brown's recent assertion that, "The men who made the maps used the same materials to make the source books and the books with which the maps were later paired." She continues:

> …book and map makers were the ones who used the maps and books separately and together for personal study; to assuage their geographical curiosity; for contemplation, meditation and absorption; for teaching and for combinations of these activities. They were able to do so because their maps and books were mutually and epistemologically complementary.[83]

This dissertation puts Brown's word into practice. I argue that when we consider each specific medieval map within its distinct manuscript context, we can begin to uncover how the contents and structure of manuscripts conditioned their creation and possible uses. In the twelfth century, there was an increasing desire to encapsulate and classify knowledge visually – diagrams, charts, and maps – as well as textually, through the medium of the encyclopedia.[84] With the Tournai Map Manuscript, the maps and the Jerome series bring the user within the geography of

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[83] Michelle Brown, "Books and Maps: Anglo-Saxon Glastonbury and Geospatial Awareness," in *A Critical Companion to English Mappaemundi of the Twelfth and Thirteenth Centuries*, eds. Dan Terkla and Nick Millea, 44–67, (Woodbridge: The Boydell Press, 2019), 45.

[84] See Adam S. Cohen, "Diagramming the Diagrammatic: Twelfth-Century Europe," *The Visualization of Knowledge in Medieval and Early Modern Europe*, eds. Marcia Kupfer, Adam S. Cohen, and J. H. Chajes, The Visualization of Knowledge, 383-403, (Turnhout, Belgium: Brepols, 2020); Christopher de Hamel, *History of Illuminated Manuscripts*, (London: Phaidon Press, 2014), 98.

salvation, while also showing contemporary scholars a distinct moment in the history of cartography, a moment in which maps are first being developed to work as instruments or aids to the texts they accompany, a contribution typically credited to the Early Modern period.[85]

Diagrams

This dissertation offers one example of how tracing a particular map maker's script opens doors for understanding the epistemological milieu within which they operate. This is particularly important for the Tournai map maker, because he was the author of a number of diagrams that I explore throughout subsequent chapters. I pay the most attention to his diagram of the Church of the Dormition in the margin of folio 14 recto in BL Add. MS 15219, which contains Bede's rendition of Adomnán of Iona's *De Locis Sanctus* (henceforth *DLS*, BL Add. MS 15219, fol. 14r, **see Figures 14 and 15**).[86] He also drew a number of diagrams in a copy of Isidore of Seville's *Etymologiae* produced at Saint-Martin in the twelfth century. Within the larger body of notes and diagrams he drew for Isidore's *Etymologiae*, I focus on his diagrammatic map of Cappadocia (**Figure 16**), which illustrates Isidore's description of the region. Paul Harvey surmised that this

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[85] Catherine Delano-Smith and E. Morley Ingram, *Maps in Bibles, 1500-1600: An Illustrated Catalogue* (Geneva: Librairie Droz, 1991), xxi; Arad also noted this in her lecture, Arad, "Twelfth-Century Maps of the Holy Land," (lecture, University of Wisconsin, Madison, October 29, 2020).

[86] Paul Harvey identified this "rudimentary diagram," see Harvey, *Medieval Maps*, 41; I attribute it to a plan of the Church of the Dormition.

map of Cappadocia is a draft version of the map of Asia in the TMM, an argument I support and explore further in Chapters One and Four.[87]

Scholarship on eleventh- and twelfth-century maps and diagrams often overlaps because they belong to the same culture of knowledge-making, informed by monastic practices of memory and spiritual contemplation. From the eleventh century and increasingly into the twelfth, monastic scriptoria throughout Europe produced a large number of scholarly works containing both maps and diagrams as tactics to help the user understand the content of the text with which they are associated.[88] Faith Wallis succinctly concluded that diagrams "…are illustrations that help readers to understand the text, or in any event, deepen their appreciation of its content and implications; they incorporate textual inscriptions into graphic schema to represent the relationship between entities or concepts; and they can function as a 'visual exegesis.'"[89]

Andrea Worm finds exegetical prompts in the late twelfth-century diagrams of Peter of Poitiers. His *Historia in Genealogia Christi* was a highly influential survey of biblical history and is the first diagrammatic synopsis to appear in the Latin West.[90] Of the diagrams, one such for the

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[87] The Isidore loose-leaf folios are in a private collection; conversation between author and Paul Harvey, International Medieval Congress, University of Leeds, UK, July 2019.

[88] Faith Wallis, "What a Medieval Diagram Shows: A Case Study of Computus," *Studies in Iconography* 36 (2015): 1–40, 3, writes: "That medieval art exhibited a 'diagrammatic turn' was first enunciated by Steffen Bogen and Felix Thürlemann and has been elaborated by Christl Meier, Jeffrey F. Hamburger, Eric M. Ramírez-Weaver, and others."

[89] Wallis, "What a Medieval Diagram Shows," 3.

[90] Cambridge Corpus Christi College, MS029; Andrea Worm, "'Ista Est Jerusalem:' Intertextuality and Visual Exegesis in Peter of Poitiers' *Compendium Historiae in Genealogia*

twelve tribes of Israel is made up of four main roundels arranged in the cardinal directions. These outer roundels each contain their own four inner-roundels, which represent the tents encampments of the twelve tribes of Israel that are described in the *Book of Numbers*. The first line of the description: *hec figura valet ad intelligendum*… or "this figure is useful for understanding" (**Figure 17**), refers to the disposition of the tribes.[91] The text subsequently references the twelve stones in Joshua 4:3 erected on the River Jordan.[92] The diagram then, as Worm explains, brings the tents (Numbers 1:52) and stones (Joshua 4:3) together to show how events in Biblical history mirror each other.[93]

The four diagrams that appear in copies of the *De Locis Sanctis* also serve exegetical purposes. The Church of the Dormition plan within the *De Locis Sanctis*, added by the map maker in the margins of BL Add. MS 15219, is adjacent to a description of the site. The description relates information about the locations within the Church within which scriptural events happened, such as the column on which Jesus was scourged, inscribed in the center.[94] Also included in the

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Christi and Werner Rolevinck's Fasciculus *Temporum*," in *Imagining Jerusalem in the Medieval West*, edited by Lucy Donkin, and Hanna Vorholt, (Oxford: Oxford University Press, 2012), 124.

[91] Worm, "'Ista Est Jerusalem'," 144.

[92] "Douay-Rheims Bible: Joshua 4:3," last modified 2017, https://drbo.org/chapter/49024.htm, "And command them to take out of the midst of the Jordan, where the feet of the priests stood, twelve very hard stones, which you shall set in the place of the camp, where you shall pitch your tents this night."

[93] Worm, "'Ista Est Jerusalem'," 142-145.

[94] Asa Mittman points out that Adomnán indicates this column as the exact center point of the Jerusalem, see Mittman, *Maps and Monsters*, 35; also see John Wilkinson, trans., "The Holy Places," in *Jerusalem Pilgrims Before the Crusades*, (Warminster: Aris and Phillips, 2002), 219–20, which translates the column as the center of the world.

diagram is location of the Last Supper, an event not indicated in the adjacent text. The Church of Dormition plan, like that in the *Historia in Genealogia Christi* described above, bring events, people and places onto a single plane to aid in the monastic researcher's relationship with Scriptures.

The recent volume, *The Visualization of Knowledge* explores the overlapping nature of graphic representation in the Middle Ages. Marcia Kupfer writes in the introduction that the work places "tables, lists, geometric schemata, and musical notation . . . under our remit in addition to maps and diagrams."[95] Adam Cohen dissects the definition of a diagram between a range of text and image, which I explore further in Chapter One. The consensus remains that diagrams include elements of perpendicular or geometric linework, with text implanted into the spatial structure. My dissertation brings the format of the encyclopedia – its formal and systematic arrangement of information as well as its functional intentions – into the discussion on medieval diagrams. As stated earlier, by the twelfth century there was a surge in the production of encyclopedias, in tandem with the rise of diagrams and maps. The TMM then combines a multitude of approaches of ordering and visualizing knowledge.

Performative cartography

"Performative cartography" is a term I have developed to explain how engaging with a map in its material context (i.e. whether the map is on a wall or within a manuscript), adds to or structures

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[95] Marcia Kupfer, Introduction to *The Visualization of Knowledge in Medieval and Early Modern Europe*, eds. Marcia Kupfer, Adam S. Cohen, and J. H. Chajes, 383-403, (Turnhout, Belgium: Brepols, 2020), 11.

the map's intrinsic meaning. While the term "performativity" in medieval scholarship is most often associated with studies on church architecture and liturgy, the term is also applied to the experience of reading a manuscript.[96] Pamela Sheingorn has considered how decorations (paintings and illuminated initials) engage the senses. She writes,

> When a person is studying a manuscript, that environment is the open book, and a full encounter with it is by means of the senses. Thus, to investigate readerly reception means to study not just mental responses but to include perception as well, that is, to remember embodiment. A phenomenological approach to reception takes as its category of analysis the responses of the embodied reader-viewer.[97]

Sheingorn's case study is a fourteenth-century manuscript containing a poem recounting a dream about the life of Christ, read silently. The decoration of initials signaled changes in speaker or speech, adding visual cadence crucial in shaping the reader-viewer's comprehension of the poem.[98] While the embodied experience Sheignhorn cites is distinct from the TMM, her example signals an important phenomenon when it comes to understanding how decoration in a manuscript can bring the user into the "embodied" or third dimension.

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[96] Alexei Lidov developed the term "Hierotopy" to describe the creation of sacred space through ritualized acts, including processions accompanied by flickering lights and oscillating sounds and smells. See Alexei Lidov, "Hierotopy: The Creation of Sacred Spaces as a Form of Creativity and Subject of Cultural History," in *Hierotopy: The Creation of Sacred Spaces in Byzantium and Medieval Russia*, ed. Alexei Lidov, (Moscow: Indrik, 2006).

[97] Pamela Sheingorn, "Performing the Illustrated Manuscript: Great Reckonings in Little Books," in *Visualizing Medieval Performance: Perspectives, Histories, Contexts*, ed. Elena Gertsman, 57–82, (Aldershot: Ashgate, 2008), 60.

[98] Ibid.," 61-2.

Like the poem that Sheingorn discusses, Psalters evoke an aural quality because the prayers were recited or sung throughout the day. Larger initials mark the beginning of each prayer.[99] While the content of the Jerome series was not for aural recitation, his texts do relate to the liturgy because there are many toponyms throughout the Psalms. A reference text like the TMM would have complemented the monk's relationship with liturgical practice, which also involved processional performance. As I discuss in Chapter Four, cloisters, for instance, were designed as spaces for meditation. The square-plan pathway was decorated with sculpted images functioned as a kind of visual "encyclopedia," as Carruthers states, of scriptural events.[100] In the later sections of this dissertation, I elaborate on the connection between the TMM and the liturgy, arguing that the performative pathways engineered by the map-text associations, mirror the daily pathways that the monks traversed.

For the TMM, the performative aspect is implicated in the process of turning the folios of the manuscript, enhanced by maps that work as visual indices and accessibly located at the back of the codex. The experience is comparable to the ways in which the itineraries of Matthew Paris were engaged, as Daniel Connolly has explained (Cambridge, Corpus Christi College, MS 026, **see Figure 18**). Arranged in a strip-like form, Paris' itinerary prefaces his *Chronica Maiora* and is designed to carry the reader from London to Jerusalem. Golden pathways, representing roads,

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[99] Michael Camille, *Mirror in Parchment: The Luttrell Psalter and the making of Medieval England*, (Chicago: University of Chicago Press, 1998), 12.

[100] Carruthers, *The Craft of Thought*, 18.

are arranged in parallel columns on each folio. As Daniel Connolly has argued, turning the page is a metaphor for a physical journey toward the Holy City.[101]

While the Tournai maps are less detailed than the Paris itinerary, they are similar in that they were adapted to encourage the viewer to engage the codex as a physical object. Lines, depicting physical features such as the Tigris River, extend to the very edges of the pages signaling the boundless space beyond the confines of the folio. The Mediterranean coastline is similarly contiguous from recto to verso, and several of the cities appear on each side. This notion of contiguous space, coupled with the cross-textual associations between the maps and places listed in manuscript, prompt the viewer to turn the page, transporting them on a journey beyond the confines of the folios and into the realm of the manuscript as a physical object (**see Figure 19**).

Structure of the dissertation

I begin this dissertation by looking closely at the maps, their structure, and their relationship with diagrams. I then expand my formal analysis onto the manuscript and identify cartographic thought in its assembly. The last two chapters explore the ways in which the Tournai Map Manuscript was engaged by both the maker and the monastic user. In this second half, I bring a quantitative analysis to the relationship between the maps and the Jerome works in the TMM. This provides crucial evidence to support my argument that the user would have been flipping back and forth through the pages of the manuscript. The last chapter then explores the visuality of the maps and as well as the textual layout of the Jerome series. I argue that the process of

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[101] Connolly, *Maps of Matthew Paris*, 58.

reading the maps, as well as the texts in the TMM, is guided by the mnemonic principles of Hugh of Saint Victor and construct a "performative cartography." Ultimately, I argue that the maps and the Jerome series work together to construct an imagined pilgrimage to the Holy Land, metaphorically enacted by turning the pages of the codex, and spiritually enacted by seeking communion with the holy research of Jerome.

The first chapter, "The Tournai Maps," provides a detailed visual analysis of the maps, and considers their relationship with others made in the twelfth century. I identify the visual hierarchical schemes established by the busy compositions. I then discuss two diagrams that the map maker drew and compare their formal elements with the maps, arguing that their format influenced his approach to drawing the Tournai maps. My formal analysis lays the foundation for my later explorations that connect Hugh of Saint Victor's mnemonic schemes with his maps, diagrams, and the textual landscapes in the body of the manuscript.

My second chapter, "Map and Maker," explores the ways in which map and manuscript-making intersect, arguing that the craft processes involved in the creation of codices are cartographic acts — from the sizing of animal skin into quires, ruling and measuring the surface into the terrain of the folio, and finally, the composition of texts and images inhabiting the manuscript. I argue that manuscript format itself acts as an active agent in the creation of cartographical space. I also discuss Paul Harvey's material analysis in detail and share my own discovery that the map maker made notes throughout the body of the codex. This signals that he was aware that the maps would be connected to a series of Jerome works exploring the topography of the Holy Land.

Chapter Three, "Map and Text," lays the groundwork for my argument that the maps engineered dynamic engagements with the information in the Jerome series. I investigate how the Tournai

maps work as visual aids to the Jerome texts in the manuscript in both quantitative (see **Tables 1, 3, 4**) and qualitative senses. The three works are exegetical reference texts for monastic scholars researching Holy Land territory and the peoples that occupied it. Researching Biblical history was a devotional act in the twelfth century, and the Tournai Map Manuscript provided a conduit for the monks in the scriptorium to mirror Church fathers not only through making copies of their texts, but also by enhancing their content. I show that the maps are heuristic tools that aid the user in deciphering the ever-shifting orthographical traditions expressed by Jerome in his series. The maps also add complexity to the process, by bringing yet another layer of translation to the TMM: the twelfth-century monastic world view placed atop Hebrew, Greek and finally Latin scholarship. The addition of the maps in the Tournai Map Manuscript provided the reader a visual compass to navigate the toponymical landscape in the Jerome works, and mentally transport them to places associated with Biblical history and the Life of Christ.

The last chapter, "Map and Manuscript," explores the performance of reading the maps and the textual landscapes in the body of the codex. I evoke Hugh of Saint Victor's *ars memoriae* and his use of the term *ductus* to trace performative pathways of viewing. I argue that the maps are not just connected to the Jerome series by way of toponymical association, as explored in Chapter Three, but they are also connected in a visual sense. The linework on the maps and in the codex prompt the user to oscillate between reading and seeing. The metaphorical and visual focal point is Jerusalem, reached there by way of "performative cartography," and imagined pilgrimage. This chapter also explores the ways in which travel to the Holy Land was accomplished in the monks' daily lives – through their liturgical performances as well in the cloister, a space designed to prompt meditation and rumination. I argue that the journey to the Holy Land

accomplished in the church space was mirrored in the TMM, engineered by line or the *ductus* that carries the user throughout the images and texts in the manuscript.

The Tournai map maker was an individual well-versed in geographical texts and the images that accompany them. He was also trained in manuscript construction and was aware of how diagrams can function as exegetical tools and as vessels to explore the dynamics of marginal notation. While the Tournai maps and diagrams served as "machines" for monastic meditation, borrowing Mary Carruthers term, my dissertation argues that it is the use of the maps in relation to their codicological setting that ultimately transports the viewer into the Holy Land.[102] While the maps are indeed connected to wider cartographical traditions, they are simultaneously tools that enact and engage with the texts they are bound to. Their placement on the last folio renders them an accessible visual aid through which to navigate the indexical nature of the texts in the manuscript, prompting heuristic study on the sacred spaces of the Holy Land and Jerusalem that were otherwise inaccessible to the monks at the Abbey Saint-Martin in Tournai.

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[102] Carruthers, *The Craft of Thought*, 228-31.

CHAPTER ONE: THE TOURNAI MAPS

Introduction

This chapter provides a detailed visual account of the Tournai maps and places them within the context of map making practice in the twelfth century. The maps occupy the recto and verso of the last folio of the Tournai map manuscript which measures at 250 x 320 mm. The map of Asia on the recto is oriented vertically (with the east at the top edge) and depicts a wide spatial extent – from the Peloponnese in the west at the bottom of the folio, to the Indian Ocean to the east at the top of the folio (**see Figures 1 and 3**). The map of Palestine occupies the verso, oriented horizontally, and focuses on the territories surrounding the city of Jerusalem (**see Figures 2 and 4**). The pair are unique within the corpus of medieval maps of the twelfth century because they are among a small group of surviving regional maps and are the only examples that depict Asia and Palestine in such density and separated out from the rest of the world.

While the maps were specifically designed to complement the Jerome series in the TMM, the map maker did not start from scratch. He drew on earlier maps and toponymical descriptions that date from the third to twelfth centuries. These sources include Paulus Orosius's fifth-century *Historiarum adversum Paganos* (*History Against the Pagans*), Claudius Julius Solinus's third century, *Collectanea rerum memorabilium* (*Collection of Memorable Things*, an encyclopedia), and Julius Honorius's fourth century, *Cosmographia*.[103] While the Tournai maps have a distinct relationship with late-antique geography, they also rely on Isidore of Seville's seventh-century

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[103] Miller, *Mappaemundi*, 5-19.

Etymologiae (The Etymologies), who also referred to Pliny the Elder's first century *Historia Naturalis* (Natural Histories), who inspired Solinus.[104] Isidore's work, compiled in the early seventh century, was a key source for medieval map makers and is a text that we know that the Tournai map maker referenced directly, as evidenced by a drawing he authored beneath Isidore's tract on Cappadocia (**see Figure 16**), which I discuss later in this chapter. The surviving manuscript list from Saint-Martin, one of the most important examples of twelfth-century library catalogues, does not note the presence of Solinus, Orosius, or Honorius from which the maps derive crucial material.[105] The map maker may have then travelled to other libraries to view the maps and toponymical descriptions from which the maps of Asia and Palestine derive.

If we follow Dalché's argument that the map of Asia was adapted from a larger fifth-century wall map, citing a description that remains at Bobbio abbey, then we can imagine that Asia on the original wall map must have been rendered on a wider expanse of vellum than that of the 250 x 320 mm folio in the TMM. Thus, the maker had to adjust what he saw or read to his particular canvas.[106] By contrast, the map of Palestine has not been connected to the Bobbio description; indeed it is so dense in place names we can surmise that it was extracted from a world map, likely the same one that served as the model for the Asia Map, because there are many place names and physical features repeated on each map (**Figure 20**). Additional details likely were derived from maps of the city of Jerusalem (as I describe later in this chapter). Like the translated

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[104] Lewis et al., trans., Introduction to *The Etymologies*, 13.

[105] Derolez, et al. eds., *Corpus catalogorum Belgii*, 321-9.

[106] Dalché, "Eucher de Lyon, Iona, Bobbio," 1-22; Edson, *Mapping Time and Space*, 111-7.

works in the TMM, the maps are also translations but of a different nature – from a description or large image of the world displayed on a wall, to a 250 x 320 mm folio, recto and verso. This choice to separate out Asia and Palestine from descriptions or images of other world maps is evidence that the maps were designed to complement the Jerome series in the manuscript.

In my descriptions of the maps in this chapter, I will refer to the Sawley and to the Munich maps for comparison (see **Figure 21**). The Sawley map is particularly instructive for our purposes because it was made in the later twelfth century like the Tournai maps and it is the first folio in a manuscript containing *De imago mundi* by Honorius Augustodunensis (c. 1080-1157), also an encyclopedia. The Munich map is connected to a compendium of Isidore works including the *Etymologiae*. Rather than illustrating Isidore's work directly, the map relates to Hugh of Saint Victor's *Descriptio mappa mundi*.[107]

The Sawley and Munich maps are grouped in scholarship with the Psalter, Hereford and Ebstorf maps (**Figures 9-11**), despite the fact they do not center on Jerusalem**.**[108] However a number of elements draw these maps together. All of these examples arrange the world in the T-O structure described by Isidore of Seville in his *Etymologiae*, according to which the Mediterranean and Aegean Seas form both the horizontal and vertical axis of a "T" shape, surrounded by outer oceans (the "O").[109] The later three each display a Christian elaboration on Isidore's model, by

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[107] Dalché, *La 'Descriptio mappe mundi'*; Edson and recently Bouloux confirm Dalché's argument. See Edson, *Mapping Time and Space*, 162-63; Bouloux, "The Munich Map," 93, which provides a full account of Dalché's scholarship in footnote 4.

[108] Bouloux, "The Munich Map," 93.

[109] Lewis et al., trans., *Etymologies,* 277.

placing Jerusalem at the center of the world, reflecting Ezekiel's description in Chapter 5, "This is Jerusalem, I have set her in the midst of the nations, and the countries round about her."[110]

The next section explains the general layout of each Tournai map, pointing to the body of map making standards that appear on other maps of their time. The subsequent sections provide a more detailed visual analysis of each map. I conclude with a discussion about the diagrams that the Tournai map maker drew, focusing on how they visually relate to his maps and other "diagrammatic maps" of the period. This provides insight into the map maker's methodology in encapsulating large expanses of space onto two folios, as well as their intended function alongside their companion texts, a point I continue to explore in subsequent chapters.

Understanding the Tournai maps

To the modern viewer, the Tournai maps may appear confusing because they are so dense in place names – 278 on the map of Asia, and 203 on the map of Palestine – and the physical features are rendered in a schematic fashion. Like all medieval maps from the twelfth-century Latin west, they are oriented eastward, towards the sunrise and the location of Paradise.[111] The Asia Map, which is laid out vertically on the folio, extends from Constantinople and Asia Minor at the lower western edge to the Indian Ocean in the East at the top of the folio (**see Figures 1 and 3**). Palestine and the eastern Mediterranean are located in the south, or right edge of the

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[110] "Parker Library on the Web: La Mappemonde du De Arca Noe Mystica," https://parker.stanford.edu/parker/catalog/HCHJ5FVH; Edson, *Mapping Time and Space*, 111-7; "Douay-Rheims Bible: Ezekiel 5:5," last modified 2017, https://drbo.org/chapter/31005.htm.

[111] Edson, *The World Map*, 20; Scafi, *Mapping Paradise*, 170.

folio, with the Black Sea and Caspian Sea located at the northern, left edge of the folio. The map of Palestine, laid out on the horizontal axis of the opposite side of the same folio, is focused on the large icon of Jerusalem, and encompasses the territory of the Middle East from Mediterranean coast between Constantinople and Alexandria (lower edge) and up to India on the upper, eastern edge (**see Figure 2 and 4**).

Orienting the maps to the north at top to follow contemporary standards of map making exposes the many physical features that are askew or condensed, such as Egypt on the map of Palestine, and between Persia and the Indian Ocean on the map of Asia (**see Figures 22- 25**). The distorted regions bring to light the map maker's artistic license. Since the maps were both likely copied from larger world maps, I contend that he manipulated these areas to fit on the 250 x 320 mm folios in order to first, provide a visual analogue for the sections in the Jerome series that mention Egypt and India throughout (as I discuss in Chapter Three), and second, to represent a body of territory that was relevant to the monastic-crusader endeavor. Egypt was a place in need of constant reflection because it was governed by Muslim rulers, and therefore a threat to Christian control of Jerusalem.

Describing the maps is a challenge, because they lack color (though red pigment appears in the upper portion of the map of Asia), which would provide a visual logic. For example, the Sawley and Munich maps use complementary colors (red and green) to distinguish between land and water features (**see Figure 21**). The maps are also "all-over" compositions, which means that dominating formal elements encompass the entirety of the canvas. All-over compositions typically do not establish a visual hierarchical scheme and draw the eye sporadically around the

field. Yet, while the network of both textual and visual information on the Tournai maps appears conflated at first glance, closer inspection, reveals a certain logic.

The largest city icons help fix the eye to specific places, such as the icons for Mount Ararat (or Noah's Ark), Nineveh and Constantinople on the map of Asia. The larger city icons anchor the eye in landmasses and provide a contrast between shapes that represent land and bodies of water. There is also a regularity of linework – rivers are designated by thicker bands rendered with two parallel lines; their inscription follows along. The river sources are indicated by a closed semi-circle, a convention also present on the Sawley and Munich maps (see **Figure 21**). The mountain icons also resemble those on the Sawley and Munich maps. Each are pictured as multi-lobed shapes with linear baselines; lone mountains often appear as a singular tri-lobed shape (see Mount Tabor on both Tournai maps).

To indicate broader expanses of space, the map of Asia often uses larger "kerned" script (which means there is an extra space in-between each letter), a technique also utilized in modern map making. This textual cue does not appear on the Sawley map but does on the later Hereford map (most apparent in the continent labels for Asia, Europe, and Africa).[112] The provinces within Anatolia on the map of Asia each utilize kerning, which helps distinguish between regions and cities. Cities are either accompanied by a "*c*" or "*ciu*" for *civitas*, or are encased by icons that range from simplified shapes that communicate turreted structures (e.g. Ecbatana) to cylindrical icons that appear to be tilted downward to give a sense of perspective (e.g. Babylon), which

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[112] See Cat Crossley, Heather Wacha, and Martin Foys, eds., "Hereford Map (Hereford Cathedral)," in *Virtual Mappa*, eds. Martin Foys, Heather Wacha et al., (Schoenberg Institute of Manuscript Studies, 2020): https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82.

resemble those on the Sawley and Munich maps. More ornate city icons such as that for Constantinople signal key cities in the known world, as well as those mentioned in the Bible, such as Nineveh. More simplified icons appear for cities such as Ophir, located at the upper or eastern tip of the Red Sea, a city described in 3 Kings (1 Kings 10:11) as abundant with gold.[113]

These conventions used on each of the Tournai maps help establish a visual logic in a field that inspires confusion also because color only appears in the upper third of the folio. The next sections dive deeper into a detailed visual analysis of both maps, with explanations of their toponymical structure.

The Map of Asia, folio 64 recto

The map of Asia on the recto depicts a wide spatial extent with 278 inscriptions (refer to **Figures 1 and 3** throughout this section). Greece occupies the bottom right or westernmost portion of the map, marked by prominent cities such as Corinth and Athens at the southern tip of the peninsula. Just beyond Corinth is the island of Crete is given shape by a 4 x 2.5 cm patch, a creative use of imperfect parchment, as Paul Harvey has pointed out.[114] From Athens, various mountain chains – the Pindus and the *Acroceraunian* Mountains (modern-day Ceraunian Mountains) – move the eye left towards Macedonia (though the label for Macedonia itself is not kerned, as are other region labels), north of Greece. Single mountains or smaller chains such as Olympus and Mount Athos pepper the region. Of note is the presence of Mount Athos, which caps a small peninsula

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[113] "Douay-Rheims Bible: 3 Kings (1 Kings 10:11)," last modified 2017, https://drbo.org/cgi-bin/d?b=drb&bk=11&ch=10&l=11#x.

[114] Harvey, *Medieval Maps*, 41.

in the Thessaloniki region of Greece. The mountain is greatly exaggerated on the map to give the site more significance – it has a 100-mile viewshed and can be seen from islands as Lemnos, Samothrace in the Aegean, and even Rhodes. For Ptolemy, Mount Athos was a tool for cartographical accuracy.[115] Mount Athos does not appear on the Sawley or the later Psalter maps, but it does appear on the Hereford map, and is mentioned in Solinus and Isidore.[116]

To the left (or northwest) of Mount Athos, Constantinople sits at the western tip of the Bosphorus strait. Its icon is oriented eastward and is the largest most decorated ideogram in this bottom section – a circular enclosure with three towers. Above Constantinople, the Bosphorus strait is exaggerated to give the passage between the Sea of Marmora and the Black Sea significance. The Black Sea stretches upward along the left side (and east), against the northern coast of Anatolia. The island Patmos sits toward the west (or bottom portion) of the Black Sea, which is a mistake. The island should be located in the Aegean. The Aegean Sea, on the opposite side of the map, stretches upward and defines the southern coast of Anatolia. The Aegean is dotted with islands including Knidos, Lesbos (Mytilene), Kos, Rhodes, Samos and Delos. Just beyond Rhodes, the island of Cyprus is given prominence.

Anatolia is the largest single landmass on the map of Asia and encompasses about one-third of the composition, dominating the lower half. It is divided into 12 regions: Paflagonia, Galathia,

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[115] It was thought to be the dwelling place of the Virgin Mary and holds 20 monasteries situated around the rim of the peninsula. See Veronica Della Dora, *Imagining Mount Athos: Visions of a Holy Place, From Homer to World War II* (Charlottesville: University of Virginia Press, 2011), 79–83.

[116] Weidmann Mommsen, trans. and ed., *C. Julius Solinus's Collectanea rerum memorabilium* (Berlin: Weidmann, Berolinum, 1895), 11.33.

Bitinia, Lidia, Licaonia, Frigia (superior and inferior), Migdonia, Mesia, Caria, Litia and Pamphilia and Isauria. Grid-like linework divides the regions – one of the only perpendicular single lines in the entire composition divides Lidia and Isauria in the easternmost section. The boundaries of the western-most regions are defined by physical features such as the Meander and Hermus rivers, which border Caria. All of the regions appear on the later Hereford map and are described by Solinus, Isidore and Honorius.[117] An earlier draft map of Cappadocia by the Tournai map maker shows almost all of these same provinces under the tract in a copy of Isidore's *Etymologiae* that was produced at Saint-Martin but was disbound (I explore this map in a later section of this chapter).

Further east of Anatolia, Armenia is marked by the Ark of Noah, traditionally associated with Mount Ararat. To the right of the Ark, following down the Orontes, Antioch sits as the easternmost city on the river. The Orontes flows into the Mediterranean, creating a line that extends downward toward the edge of the right side of the folio. The Lebanese and Antilebanon Mountain chains extend up and across from the western or bottom portion of the Mediterranean coast. These natural features begin to frame the area surrounding Jerusalem, which continues onto the opposite side of the folio. Several place names that also appear on the map of Palestine are shown here, including Mount Tabor, Caesarea, Phillipi, and Galilea. The Jor and Dan rivers converge to form the Jordan River.

The Altars of Alexander, marked with three simple squares, appear at the opposite edge of folio. They are placed in proximity to the Rhiphaen Mountains and the Tanis River, matching

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[117] Miller, *Mappaemundi*, 6-7.

Orosius's description. The Altars appear on the Munich, Psalter, Hereford and Ebstorf maps, and mark the easternmost location of Alexander the Great's empire.[118] Stretching upward from the Altars and into the upper third of the map, is Asia Minor. This section is dominated by horizontal bands of rivers. Nineveh appears at the north end of the Tigris, marked as one of the larger icons comprising a circuit of walls with red, arched gates. The Tigris and Euphrates Rivers flow into the Armenian mountains to the north, and to the south, lead into the Red Sea. The Sea is filled with red pigment and is represented by a double-lobed shape, a convention that is also used on the Munich, Sawley and later world maps (see **Figures 1 and 21**). These lobes represent the Persian Gulf and the Arabian Sea, though these features are unlabeled.

The upper portion of the map is densely populated with larger city icons. The icon of Babylon is among the larger more distinct examples – a squat cylinder with three portals, flanked by a tall tower, possibly the Tower of Babel. Persia, above Babylon, is delineated from Media with a simple line; each are located between the *Hydaspes* (modern-day Jhelum) and the Indus Rivers. Persia's two most prominent cities, Persepolis and Susa are designated by fortified enclosures. North of Media, towards the left on the map, is Parthia, capped by the *Paropanissade* (modern-day Hindu Kush) mountain range, above which are the territories of India – inferior to the south, and superior to the north. Among the inscriptions in the India Inferior section are the *Cesone*

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[118] Karl Zangemeister, ed., *Pauli Orosii Historiarum adversum Paganos Libri VII*, (Leipzig: Teubner, 1889), 1.2.5.

peoples. According to Pliny the Elder, the *Cesone* once owned the city of Enos, one of the larger icons with red ink, just north (or left) of the *Cesone* inscription.[119]

The India section occupies about one-quarter of the total composition and extends to the top edge of the map. The presence of the territories of India, as well as the Indian Ocean that lines the easternmost edge of the map, is another factor that distinguishes the Tournai map of Asia. India does appear on contemporary maps (such as the Sawley and the later Psalter List maps), but the Tournai map of Asia is more densely populated with places mentioned in classical sources.[120] The farthest extent is the Indian Ocean, which occupies about half of the India section, is indicated by two inscriptions that are evenly spaced from the edges of the folio (**see Figure 1**). The Ocean includes islands, such as Sri Lanka, divided into two sections: inhabitable and habitable. To the north of Sri Lanka are the *Chryse* and *Argyre* Islands, mentioned first by Pliny (and later by Isidore) as islands abundant with gold.[121] The *Chryse* and *Argyre* appear on the Vercelli map (c.1200), but more towards the northeast, while on the Hereford Map, they are located in the Red Sea.[122] Two winds, the *Subsolanus* and *Vulturnus* winds are also inscribed within the Indian Ocean section – their inscriptions enclosed in a semi-circle that extends to the edge of the folio, which distinguishes them from the islands. The *Subsolanus* and *Vulturnus* winds are two of twelve that often adorn medieval maps (such as the Psalter world map). The

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[119] Theodor, trans., *Naturalis Historia*, 6.55.

[120] Zangemeister, *Pauli Orosii*, 1.2.15.

[121] Lewis et al., trans., *Etymologies*, 286.

[122] See Wacha and Helen Davies, eds., "Vercelli Map," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82.

Subsolanus is the easternmost wind, while the *Vulturnus*, depicted here as a northeast wind, usually represents an east-southeast wind.

Five inscriptions made after the twelfth century suggest that the maps were compared with other maps and edited after they were first drawn.[123] On the Asia map, the place names "*Cencris portus Corintiorum*" or "Cenchreae, [the] port of Corinth," were inscribed later in the twelfth century. Another later inscription "*Pataram*" or "Patara," added as late as the fifteenth century, appears near the island of Rhodes (**see Figure 26**). All of the later additions are associated with the biblical descriptions of the apostolic missions of Saint Paul, including those added onto the map of Palestine.[124] These additions could fill in the gap of New Testament place names left out in the *Book of Hebrew Places*, the third text in the manuscript, to which the map of Palestine in particular shows close connections (a point I explore further in Chapters Three and Four). The later scribes could have also sought to update the maps to be more in-line with those in the Beatus manuscripts, some of which signal the Apostolic mission with great visual importance. One example from the later twelfth-century (Biblioteca Ambrosiana, Milan, Ms. F. 150 SUP., fols. 71v-72r) includes bust-like icons of the Apostles over their territories as outlined in *Acts*.[125]

The maps are akin to modern-day atlases – the map of Asia leads into the map of Palestine by way of connecting toponymical and topographical features such as the Jor and Dan rivers and their confluence, which I explore further in Chapter Four. The Mediterranean coastline similarly

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[123] Harvey, *Medieval Maps*, 59.

[124] Martin Foys pointed me to the association between the added place names and the Apostolic mission.

[125] Scafi, *Mapping Paradise*, 104-8.

continues from Asia into Palestine, lined with cities framed in crenellated structures that repeat on each side of the folio. The structures help emphasize this connecting linework, and encourage the user to turn the page, and connect the features on the map of Asia with those on Palestine (see **Figures 19 and 41**).

The Map of Palestine, folio 64 verso

The map of Palestine affords a closer view of the area surrounding Jerusalem, the city of which is surrounded by 203 places (refer to **Figures 2 and 4** throughout this section). It is the most detailed map from this period that specifically centers on Palestine. The map is positioned horizontally; the easternmost edge runs along the gutter. Thus, to read the map, the user must reorient the manuscript. Overall, the map has a grid-like structure created by the configuration of rivers and seas. Four rivers run north-to-south or left to right in the upper part of the map (Tigris, Euphrates, Indus and Ganges). The Mediterranean Sea spans the lower edge of the map adjacent the gutter, the westernmost portion. The Lebanon Mountains create an east-west axis in the northern portion; the Nuhul and Nile rivers creating the y-axis in the southern, skewed in order to fit the regions onto the folio. Below the Euphrates, the Jordan River caps the city of Jerusalem, and terminates in the sea of Galilee to the north (left) and the Dead Sea to the south (right). The central portion of the map, framed by these physical features, closely matches the extent of the original Palestine map, now beneath the map of Asia on the verso (see **Figure 33**). The axial linework combined with the negative space between areas directly around Jerusalem enhances the city's prominence, making it the most dominant feature on either map, depicted with the largest icon.

Jerusalem, near the center, is enclosed in a circular wall. Three of the gates appear at the cardinal points of the circle (north, east, and south), but the fourth gate appears in the southeast, adjacent Mount Zion with the Tower of David rising above it. This icon of the Holy City follows a model that coincides with later city plans of Jerusalem, including the Hague map (see **Figure 8**).[126] Like the Tournai map of Palestine, the Hague map is axial in visual structure, resembling T-O maps. On the Hague map, the axes are created by the processional streets that extend from four gates labeled: the way of Saint Stephen, Mount Zion, the enclosure of Solomon, and to the Temple of God (or the Holy Sepulcher). The Holy Sepulcher is pictured directly north of the street, and to the south, the Tower of David.

The Tower of David is among the specific monuments adorning the Jerusalem icon. On the Hague map the tower is in the southwestern portion of the city with crenelated walls and three staff-like shapes projecting outward. On the Palestine map, the Tower of David projects from Mount Zion located in the southeast. The Tower of David and Mount Zion are in proximity to each other on the Hague map but are not conjoined as they are on the Palestine map. The Hague map also displays a number of toponyms that we see on the map of Palestine, but with more elaborate city icons (see **Figure 7**). Among the place names that are outside of the city that appear on both the Hague and Palestine map are the Valley of Josephat, Bethania, and Bethlehem. Among these three examples, only the location of Bethlehem on the maps match –

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[126] "Medieval Illuminated Manuscripts: The Hague, KB, 76 F 5," https://manuscripts.kb.nl/show/manuscript/76+F+5, states that the miniatures were painted between c. 1190-1200, with added text between 1290-1300.

on the Palestine map, Bethania is inscribed farther east than the Hague map, and the Valley of Josephat is north of the city, rather than directly to the east as it is on the Hague map.

Following the Jordan River to the Sea of Galilee, and then down the Lebanese mountains, an unbroken line of crenellated walled cities lines the coast of the Mediterranean. The cities extend from Seleucia to the very east and Gaza to the south. As stated, about half of the places on the coast are also on the map of Asia, and the coast itself on both maps are rendered at about a 45-degree angle, connecting the feature even further (**see Figures 19 and 20**). To the south (or right) of Jerusalem, and beyond the Dead Sea is Egypt, marked throughout by cities. Cairo (*Babilonia Nova*) is indicated with a special icon – a cylindrical shape with a flattened base, the top of which is tilted downward like the icons on the map of Asia. Extending from its center is a tower rendered from a birds-eye perspective. This icon is perhaps the Roman or Babylon Fortress, built originally in the sixth century BCE, and later rebuilt first under the emperor Trajan and then in its present form by Diocletian with massive cylindrical towers.[127]

Cairo is rendered in proximity to the Nile, which terminates toward the bas-de-page. The Nile River Delta is indicated by one line that extends into the "Egyptian Sea." Later maps render the Delta with a number of wavy lines (Sawley and Psalter maps).[128] Alexandria sits at the tip of the shape representing northeast Africa, adorned with an adjacent tower – *far(us) altissima*, "the highest lighthouse" indicates the city's most famous monument, the Pharos or Lighthouse, built

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[127] See Peter Sheehan, *Babylon of Egypt. The Archaeology of Old Cairo and the Origins of the City*, (Cairo: American University in Cairo Press, 2015). I am indebted to Thomas Dale for this observation.

[128] Mommsen, trans., *Solinus*, 22.8.

in the third century BCE. An icon denoting Rhinocoria has a similar tower extending from its center, with an inscription that reads "Rhinocorura, city and river; border of Palestine and Egypt." Beyond this label are the Nile and Nuhul rivers that run east to west, parallel to each other and spring from within Ethiopia.

The Red Sea extends from the southeast corner. In contrast to the map of Asia, it is not filled in with red pigment in this map. The present coloration is perhaps a light tint of the same ink used for the inscriptions.[129] The sea terminates in two gulfs labeled: the Persian and Arabian Gulfs. This split follows Solinus's description of this area: "The Red Sea interrupts this coast, and it is divided into two gulfs: of which the one at the east is called the Persian Gulf ... the other is called the Arabian Gulf)."[130] The Persian and Arabian Gulfs surround Saudi Arabia and Mount Sinai, which conflates the two peninsulas. While many medieval *mappaemundi* depict a separation of gulfs in the Red Sea, they often only label the Persian Gulf (Sawley and Hereford maps).[131] One map that includes labels for both the Persian and Arabian Gulfs is found on the margins of a ninth-century manuscript containing Orosius' *Historiarum adversum Paganos* (*Seven Books of History Against the Pagans*), a historical text that begins with creation and ends at around 417 (Saint Gall, Stifstbibliothek, Cod. Sang. 621).

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[129] Analyzing this map in-person does not show any signs that this is a repair or large patch. Multispectral imaging also has not yet provided any conclusions on the pigment used here.

[130] Mommsen, trans., *Solinus*, 54.12.

[131] Crossley, et al., "Hereford Map (Hereford Cathedral)," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82.

Within the Red Sea, the Gorgoneum Island is filled the *Gargala* and *Capi* Rivers and a mountain chain at the northern edge.[132] On the Sawley map, Gorgoneum Island is in a similar location as Sri Lanka.[133] Just beyond the Red Sea is a rectangle encasing a drawing of two large trees enclosed within a square. Beneath the drawings and within the frame an inscription reads, "Oracles of the Sun and Moon" (*Oraculum Solis et Lune*). The inscription appears as *Arbor Solis* and *Arbor Lune* on the Psalter world map and is linked to the tale of Alexander the Great's encounter with the Trees of the Sun and Moon in the *Alexander Romance*.[134] Directly left is a pair of matching icons with three columns or pillars labeled Pillars of Hercules and the Pillars of Alexander.

Three rivers of Paradise (Tigris, Indus and the *Pishon*, or Ganges) flow into the Caucasus mountains towards the north (or left portion), drawn on the patch that creates the island of Crete on the opposite side of the folio. The rivers are flanked by evenly spaced names of regions: along the Tigris, the regions span from Carmania from the south to Arachusia to the north. Beyond the rivers, the Caspian Sea extends out from the northern edge of the page, with the Hyrcanian Forest beneath it, accompanied with simple line drawings denoting plant-like shapes. Beneath the forest, there are numerous erasures that Paul Harvey uncovered in 2006. This section

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[132] Brott, et al. eds., "Tournai Map of Palestine: Capi River," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82, (forthcoming); For the *Marvels of the East* see Friedman, *The Monstrous Races*.

[133] Brott, et al. eds., "Tournai Map of Palestine: Gorgoneu[m?] Insula," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82, (forthcoming).

[134] Mittman, et al., "Psalter World Map: Arbor Solis [and] Arbor Lune," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82

originally depicted Anatolia.[135] These erasures suggest that the cartographer, at one point, referred to a map depicting a larger expanse when drawing the map of Palestine. When he realized that there was too little space to accommodate all of the places he wanted to include, he flipped the folio over, and began drawing the map of Asia on the current recto, with more space to accommodate for Anatolia, which now dominates the recto of the folio (as I describe in greater detail in the next chapter, see **Figure 26**).

The next section continues an investigation of the area of Anatolia on the current map of Asia and the erased version on the map of Palestine. I argue that these specific areas are rendered in diagrammatic form. This argument requires an analysis of medieval diagrams, and for this chapter, I focus on the visuality of diagrams in comparison with the Tournai maps, offering comparisons to diagrams that he drew in other manuscripts made at Saint-Martin.

Maps and diagrams

While there are qualities that distinguish between "map" and "diagram," in some examples both terms apply.[136] The T-O drawings that accompany copies of Isidore's *Etymologiae* (**see Figure 5**) for instance qualify as both map and diagram because they are renderings of the world, which is characteristic of a map, but the drawings are minimal and schematic, characteristic of diagrams. While the map of Asia includes red ink in some of the city icons notably in the Persia

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[135] Harvey, *Medieval Maps*, 46.

[136] Marcia Kupfer, *Art and Optics in the Hereford Map: An English Mappa Mundi, C. 1300*, (New Haven: Published for the Paul Mellon Centre for Studies in British Art by Yale University Press, 2016), 138.

section and features the conventional appearance of the Red Sea colored-in, a big factor that sets the Tournai maps apart from other world maps of the period, as well as those of the city of Jerusalem, is their lack of border decoration as well as pigment. Relating to Hugh of Saint Victor's *Descriptio*, the Sawley and Munich maps, and the later Psalter, Hereford and Ebstorf maps, feature balanced proportions of red and verdigris pigment. Hugh writes: "That is why this description, which is called a world map, has been given a variety of colors as a function of the diversity of reality: the Mediterranean Sea, the Red Sea, rivers and mountains have each been given their own colors, making it easier to distinguish one from another."[137]

Scholarship that explores the many facets of medieval diagrams continues to grow and much of the discussion is focused on defining the formal qualities that constitute a diagram as well as how they function. On a visual level, the common thread between all definitions of a diagram is their axial structure of linework, often minimal. Faith Wallis writes, "The basic language remains geometrical, even when the form mimics an object in the real world…".[138] To understand diagrams that are more lavish or decorated with figural elements, Adam Cohen recently set out a classification scheme that places diagrams between a range of "text" and "image" with the additional qualifiers such as "imagistic diagram" and "diagrammatic image" each signaling the degree to which figural decoration is included.[139] For example an image representing the Consanguinity Tree in a copy of Isidore of Seville's *Etymologiae* (Munich, BSB, Clm 13031, fol.

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[137] Bouloux, "The Munich Map," 102-3.

[138] Wallis, "What a Medieval Diagram Shows," 3.

[139] Cohen, "Diagramming the Diagrammatic," 394.

102v) is an "imagistic diagram" because while the information is presented in "traditional diagram form," it is filled with portraits of the descendants of Christ, all encased in an image of him embracing the diagram (similar to Christ on the Psalter List and Ebstorf maps), which therefore gives the Consanguinity Tree a "surplus" of meaning. In short, "imagistic diagrams" are "…a category in which the visual devise is primarily a diagram that has been enhanced with imagistic elements."[140] An image of the same Tree but rendered with a simpler form – e.g. absent of portraits, and instead framed by a schematic drawing of a tree (Bern, Burgerbibliothek, Cod. 36, fol 57v) – is a "simply a diagram," more in line with Catherine Delano-Smith's definition of "economical" linework, because the embellishments are not ornate and the linework is perpendicular and minimal.[141]

On a formal level, the economy of line, lack of color, and axial structure (particularly on the map of Palestine) render the Tournai maps comparable to diagrams. The axial structure of the map of Palestine relates to diagrams that rely on perpendicular line work, such as those for the Consanguinity Tree. There is also perhaps a diagrammatic impulse behind place names that are evenly spaced between each other, such as those along the Tigris and Euphrates Rivers on the map of Palestine. Furthermore, if we follow Harvey's reconstruction of the erasures beneath the

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[140] Cohen, "Diagramming the Diagrammatic," 389-90.

[141] Delano-Smith defines a diagram as a "visually economical construct in which everything is reduced or distilled to the barest minimum consistent with the efficient communication of the point being made: content is minimal; lines are straight or boldly curving, shorn of all irregularity of aesthetic fussiness; and potentially distracting content is eliminated," see Catherine Delano-Smith, "Maps and Plans in Medieval Exegesis: Richard of St. Victor's *in Visionem Ezechielis*," in *From Knowledge to Beatitude: St. Victor, Twelfth-Century Scholars, and Beyond*, eds E. Ann Matter and Lesley Smith, 1–45, (Notre Dame: University of Notre Dame Press, 2013), 3.

map of Palestine, it can be said that the appearance of the original iteration of Anatolia and the eastern portion of the Black Sea is particularly diagrammatic (**see Figure 12**), the format of which at one point, served to encapsulate a large area into a smaller one, but then erased and augmented to take prominence on the final version on the map of Asia.

According to Jeffrey Hamburger, diagrams "posit a correlation between disparate elements," to inspire contemplation and activate memory.[142] Diagrams in Isidore's *De natura rerum* for example, "modify the spatial arrangement of their data (e.g. the disposition of the twelve winds) in order to foreground a Christian motif: the cross. The medieval diagram thus developed in ways unprecedented in antiquity to become a graphic space where science and theology engaged in dialogue."[143] Like diagrams, the Tournai maps adapt information to fit their visual or formal structure, because as stated there are various regions rendered askew, such as Egypt and Ethiopia on the map of Palestine (shifted so that they are perpendicular to the Lebanese Mountain chain and point upward and east) in order to include more information relevant to the Jerome series.

The map maker's diagrammatic impulse can be explored further by considering two of his drawings in other manuscripts from Saint-Martin in Tournai. One is a plan of the Church of the Dormition located in the margins of BL Add. MS 15219. The plan accompanies a twelfth-

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[142] Jeffrey F. Hamburger and Anne-Marie Bouché, eds, *The Mind's Eye: Art and Theological Argument in the Middle Ages*, (Princeton: Princeton University Press, 2006); and Jeffrey Hamburger, "Mindmapping: Diagrams in the Middle Ages – and Beyond" (Lecture, Harvard University, Boston, MA, September 28, 2017).

[143] Wallis, "What a Medieval Diagram Shows," 1, citing Bianca Kühnel, "Carolingian Diagrams, Images of the Invisible," in *Seeing the Invisible in Late Antiquity and the Early Middle Ages*, eds. Karl F. Morrison and Marco Mostert Giselle de Nie, 359–89, (Turnhout: Brepols, 2005): 363–65, 375.

century copy of Bede's version of Adomnán of Iona's *De Locis Sanctis* (*DLS*) (**Figure 14**). This drawing has not been connected to the Church of Dormition plans that accompany *DLS* copies, but it closely matches the example within a version of Adomnán's text currently in the Bibliothèque Nationale de France (**see Figure 15**).[144] The Church of the Dormition Plan is a simple rectangle, capped with a smaller square in the center of one of the short sides. Like the Altars of Alexander on the map of Asia and on the Munich map, the simple conglomerate of squares reflect structures of significance. They are similar to the tri-turreted city icons that line the Mediterranean, most notably the port of Jaffa, located at the southernmost point of the Sea on the map of Asia. The choice to render sites of historical and contemporary significance in simplicity could have been informed by diagrams like the Church of the Dormition plan.

The second drawing that the Tournai map maker authored is a diagrammatic map of Cappadocia that was once connected to a twelfth century copy of Isidore of Seville's *Etymologiae* (**Figure 16**). This map represents a middle-ground between his Church of the Dormition plan and the maps in the TMM and depicts the central region of Anatolia or Cappadocia. Paul Harvey concludes that it is a draft version of the region as it appears in the TMM because most of the places are included on the map of Asia.[145] Interestingly, the Cappadocia map closely resembles Harvey's reconstruction of the erasures underneath the current Palestine map. In the final version, now on the map of Asia, the region appears in only a slightly different character than the Cappadocia draft; the provinces retain the axial lines, but are slightly angled, and the Pactolus

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[144] Paris, Bibl. nat. fonds lat. 13048, fol. 11r.

[145] Conversation between author and Paul Harvey, International Medieval Congress, University of Leeds, UK, July 2019.

and Meander rivers are curvilinear. The map maker clearly had special interest in this region, and his choice to draft this section in diagrammatic character, which now appears as an erased section on the map of Palestine, strengthens Harvey's suggestion even further that the maps in the TMM came after his drawing in the Isidore loose-leaf.

The use of diagrams as tools to explain or prompt exegetical connection led Catherine Delano-Smith to muse that the original Eusebian maps that accompanied the Greek *Onomasticon* would have been diagrammatic.[146] While the Tournai maps prompt exegesis and formally relate to diagrams, this dissertation does not seek to change the terminology of the Tournai maps to the Tournai diagrams. I instead apply scholarship on medieval diagrams as a framework to approach TMM in subsequent chapters, given the map maker's knowledge of Adomnán's work. Returning to the Church of Dormition plan in the copy at Saint-Martin, the location of the column where Jesus was beaten is indicated by an inscription (see **Figure 15**). In the text adjacent, Adomnán writes that it is the center of the entire world.[147] It is perhaps no surprise that the map maker was driven to copy the Dormition plan from another manuscript – it was part of his research in constructing and prompting travel throughout the Holy Land and the wider Christian world, as well as to it's center, Jerusalem.

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[146] Catherine Delano-Smith, "Maps and Plans in Medieval Exegesis: Richard of St. Victor's *in Visionem Ezechielis*," in *From Knowledge to Beatitude: St. Victor, Twelfth-Century Scholars, and Beyond*, ed. E. Ann Matter and Lesley Smith, 1-45, (Notre Dame, IN: University of Notre Dame Press, 2013), 5.

[147] Mittman, *Maps and Monsters*, 35; also see John Wilkinson, trans., "The Holy Places," 219-220.

Conclusion: the Tournai maps

While the Tournai maps are distinctive within the body of twelfth-century medieval maps, they still closely relate to maps of their time, while simultaneously holding an intrinsic relationship with late-antique geography. In terms of their design, because we know that the map maker was informed by diagrams, the Tournai maps function within a myriad of contexts that all relate to the visual systemization of knowledge. The next chapter steps out of the maps and into the aspects of making the manuscript. I bring the ruled folios of the manuscript into this conversation on maps and diagrams, explaining how the act of manuscript making is one that could be considered akin to a cartographical act. [148]

[148] Kupfer, Introduction to *The Visualization of Knowledge*, 11.

CHAPTER TWO: MAP AND MAKER

Introduction

"Place…that which the soul itself makes for storing-up images"
-Albertus Magnus, *De Bono, Tractatus IV, Quaestio II, De Partibus Prudentiae*, 13th century

Drawing on a rhetorical tradition going back to Cicero, Albertus Magnus, and medieval thinkers who came before him instructed their students to imagine a "place" or *locus* where they could store information, constructing a "treasure-house" of images.[149] To Hugh of Saint Victor (1096-1141), *ars memoriae* (the art of memory) is a practice encapsulated by the graphic nature of cartographic imagery, which extends to textual landscapes, as well as the material nature of the manuscript format.[150]

This chapter considers the complementary relationship between medieval maps and manuscripts in which over three-quarters of the extant examples are found, drawing on the concept of locational memory. The overarching argument is that twelfth-century manuscript construction in the Latin West, extending to the act of writing, is a cartographic activity, because, as map historian Matthew Edney has recently emphasized, "cartography" is an idea not only represented visually on maps, but is also a mental process that can be performed.[151] Cartography, therefore,

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[149] Mary Carruthers, *The Craft of Thought*, 13; Cicero, *Rhetorica ad Herennium*, trans., Harry Caplan, Loeb Classical Library 403, (Cambridge: Harvard University Press, 1954), 205–6.

[150] Hugh of Saint Victor used maps, perhaps the Munich Isidore map, as teaching tools, see Dan Terkla, "Hugh of St. Victor (1096–1141) and Anglo-French Cartography," *Imago Mundi* 65, no. 2 (2013): 161–179, 161–63. On Hugh of Saint Victor's thoughts regarding the arrangement of text within manuscripts see Carruthers, *The Book of Memory*, 118, 342–43.

[151] Edney, *Cartography*, 7, 12.

should be considered as a multi-media endeavor, inlaid within innumerable concepts that are often not inherently, or perhaps traditionally, considered *geo*-graphical.[152] For the Tournai Map Manuscript, I contend that the idea of cartography is not only present on maps occupying the last folio, but the idea is also registered within the processes of making – from the sizing of animal skin into quires, to the ruling and measuring the surface into the terrain of the folio, and finally, the composition of texts that inhabit the manuscript. The common dominator between the notion of cartography and the manuscript is "the grid," a key actor in the concept locational memory as described by Hugh of Victor.

Locational memory

To Hugh of Saint Victor *ars memoriae* (the art of memory) is a manifold process characterized by three concepts: *numerus, locus,* and *tempus.*[153] The concept of *numerus*, is his mnemonic grid system, which he conceptualized as an aid for novices in their task of memorizing the Psalms for daily Benedictine liturgical chants, recited according to the liturgical calendar, rather than in their numerical order within the Bible. He suggests that his novices imagine a grid, or a

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[152] According to Denis Cosgrove, "maps, or spatial representations, produced by ordinary subjects, and therefore not subject to the conventions of scientific cartography, allow insights not only into human perceptions and affective relations with space and place but also into the imaginative and aesthetic aspects of human spatiality." See Denis Cosgrove and Stephen Daniels, "Introduction: Iconography and Landscape," in *The Iconography of Landscape: Essays on the Symbolic Representation, Design, and Use of Past Environments*, eds. Denis Cosgrove and Stephen Daniels, 1–10, (Cambridge and New York: Cambridge University Press, 1988).

[153] Carruthers, *The Book of Memory,* 156; Carruthers, trans., "The Three Best Memory-Aids for Learning History," 340-342.

"numbered box," with each cell as a *locus*, filled with the content of the prayers.[154] *Locus* is also created via textual layout, constructed through the decoration and arrangement of larger letters.[155] Finally, *tempus* is the memory occasion – in the context of the TMM, the occasion was to prompt heuristic study and contemplation on the Holy Land, through both image and text, for an audience of cloistered Benedictine monastics.

I argue that the Tournai maps as well as their codex setting epitomize Hugh of Saint Victor's grid and concepts of *numerus, locus* and *tempus.* The grid lives beneath both the maps and the manuscript texts; the cells of the grid are filled with Hebrew *loci* and *nomina* (places and names) represented on the maps and listed within the body of the main text. The maps, in an accessible location on the last folio provide a visual index for the reader to complement the information within the main body of texts in the manuscript. This marriage of text and image, reader and viewer, creates a distinct cartography – the parameters of which are defined by the manuscript format, and the conceptualization of a localized memory.

"Cartography"

Employing the idea of "cartography" as a lens through which to explore twelfth-century map and manuscript making practices warrants explanation, particularly because the term is a late eighteenth-century French invention – a neologism that combines the Greek noun γραφή-

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[154] Carruthers, *The Book of Memory,* 101–3; Carruthers, trans., "The Three Best Memory-Aids for Learning History," 340–41.

[155] Carruthers, *The Book of Memory,* 156; Carruthers, trans., "The Three Best Memory-Aids for Learning History," 340–42.

(*graph*), "writing" or "drawing," with the late medieval Latin term, *carta*-, which has many distinct meanings, including map, letter, chart, and eventually, paper. The Latin prefix was derived in turn from the Greek "papyrus" or "leaf," but was used to describe spatial imagery from as early as the thirteenth century. By 1600, *carta* had replaced terms such as *descriptio*, *tabula,* and *typus*.[156] Thus, medievalists often specifically utilize the terms "map-making" or "map maker" instead of "cartography" or "cartographer."[157]

Distinguishing the nomenclature is important, because "cartography" is also a term associated with the making and study of imagery that follows the work of Ptolemy, a late-first/second-century Greek astronomer and geographer working in Hellenistic Egypt, whose text, *Geography* was translated into Latin between 1406-7 by Jacobus Angelus, and was disseminated throughout Europe by the fifteenth century.[158] Maps based on Ptolemy's mathematics are more often materialized in the printed format, are north-oriented, and represent the shape of the Mediterranean coastline closely paralleling our contemporary understanding of the world image, which is based on satellite imagery. Thus, with the advent of the Ptolemaic world scheme, and

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[156] "Cartography" as a term did not arise until 1790, yet scholars often apply it for Renaissance maps all the same, see Edney, *Cartography*, 114.

[157] Conversation between author and Catherine Delano-Smith at International Medieval Congress, University of Leeds, United Kingdom, July 2018.

[158] An early version accompanies a copy of Pomponius Mela's description of the world from 1414, see Woodward, "Medieval Mappaemundi,", 316; Edney, *Cartography*, 126. Other works of Ptolemy however were circulated in medieval Europe, see D. Juste, et al., eds, *Ptolemy's Science of the Stars in the Middle Ages* (Turnhout: Brepols, 2020), 1.

subsequent satellite technology, the making of maps, transformed from one that is not only an art, but also a *science*, ordered by mathematical measurement.

Medievalists who study the Latin west understand the term "science" in accordance with the Latin *scientia*, knowledge or skill.[159] I contend that medieval maps, and in particular the Tournai maps, were used as scientific tools. In this chapter, I emphasize that knowledge is not just a mental process that is performed, as described by Hugh of Saint Victor, but is also a *material* phenomenon, and by the twelfth century, one encapsulated by the codex form.[160]

Considering the craft of manuscript making as a spatial activity is particularly helpful and relevant when exploring how the Tournai maps work within their codex setting, because the map maker not only played a role in assembling the codex (as I will discuss at-length later in this chapter), but he was also deeply engaged with the content of the text, evidenced by his marginal notes that amended and added to the information within. Thus, it is not only the maps that serve

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[159] Terkla, "Hugh of St. Victor," 161.

[160] The notion that the codex format is a signifier for knowledge is also apparent in architectural sculpture from this period. At the Abbey Church of La Madeleine, in Vézelay, sculpted between 1120–1130, Christ is flanked by the evangelists who each carry a codex, representing their knowledge of the holy word and the act of spreading Christ's teachings throughout the world – the geography of which registered in the representations of "monstrous" people along the lintel, signaling an awareness of Pliny the Elders descriptions of "other" parts of the world. Also see Peter Low, "'You Who Once Were Far Off': Enlivening Scripture in the Main Portal At Vézelay," in *Art Bulletin* 85, no. 3 (2003): 469–89, 472. The structure of the cosmological and geographical information depicted on the portal at Vézelay has also been compared to *mappaemundi*, see Conrad Rudolph, "Macro/Microcosm at Vézelay: The Narthex Portal and Non-elite Participation in Elite Spirituality" in *Speculum*, 96, no. 3 (2021): 601–61 , 632.

as a visual index for the text, but his marginal notations accomplish the same goal, engendering even deeper relationships between the maps and their manuscript setting.

In what follows, I explore the craft of bookmaking in the twelfth-century Latin west, with particular focus on the processes of their assembly. The cartographic nature of text and writing is assessed with a deeper analysis of the codicological structure of the TMM. I then elucidate the role the map maker played in the construction of the manuscript.

Making

The artist and craftsman, according to Theophilus' twelfth century *De diversis artibus*, was imbued with the "seven-fold spirit." He was the transcriber ("the spirit of understanding"), translator ("the spirit of knowledge") and artificer of God's divine formula into a visual and material vocabulary.[161] With the TMM, the act of making the manuscript, and writing out places and names associated with the geography of Christ's terrestrial life, was seen as a holy act, because it was made during a time when there was an ever-growing need and desire to materialize the Holy Land in a wide variety of media. This manuscript is a vestige of the rigorous copying culture which overtook the Latin West in the twelfth century and reflects the influx of geographical knowledge that reached Europe from the Middle East in the wake of the first crusade and the establishment of the Latin Kingdom of Jerusalem. Manuscripts, specifically with imagery of the Holy Land, play a pivotal role within the media landscape of objects seeking to

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[161] John G. Hawthorne and Cyril Stanley Smith, trans., *Theophilus: On Divers Arts: The Foremost Medieval Treatise on Painting, Glassmaking, and Metalwork*, (New York: Dover Publications, 1979), 78.

bring monks to a place beyond, enacting a virtual pilgrimage of sorts, because they could not typically leave their sacred enclosures.[162] Just as it is to a pious act to study the Holy Land, the material remaking of the Holy Land in a map takes on a sacred dimension.

The process of making a manuscript is registered materially by "witness marks" of a sort, which are peppered throughout thousands of surviving medieval manuscripts. The "witness marks" appear as ruling lines, marginal notes, erasures, corrections, pen trails, and catchwords. In their time, these marks were essential guides for the scribes, artists, and individuals assembling codices. For contemporary viewers, the marks function as a network of codes that call attention to the craft skills involved in the manuscript-making process. I argue that these "witness marks" reveal an authorship of a distinct nature, one inlaid with notions of time, labor, and the wider pursuit of knowledge and its transmission.

Separating out the holiest of places, Jerusalem, and its surrounding landscape, from the rest of the world, required a certain level of ingenuity. Yet medieval map makers are often anonymous individuals, obscured by the web of transmission. They are not only artists, but they are also scribes, copyists, and in the case of the TMM, codex compilers.[163] There are few identified map makers from the medieval period, and many maps are named by contemporary historians by their association with the texts they often accompany – i.e. the Isidorian T-O maps, which are found in the margins of copies of his *Etymologiae* (**Figure 5**), or the Randolf Higden maps, named as such because they are bound within his *Polychronicon*. Matthew Paris, working around 1250, is

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[162] Edson, *The World Map*, 31.

[163] Connolly, *The Maps of Matthew Paris*, 1.

an early named medieval map maker who, like the Tournai map maker, adapted the size of a folio page to fit the Holy Land within it (**see Figure 18**), as I discuss further in Chapter Four. I now turn to laying out the process by which a manuscript is made in this period, to elucidate further how the craft of constructing a codex is a cartographical act, and how the cartography of a manuscript complements the *ars memoriae*, and the concept of locational memory.

The manuscript

The materiality of manuscripts has been a subject of increasing scholarly interest over recent years because it is understood that each moment in the craft process is meaningful.[164] The process of constructing a manuscript is complicated and time-consuming, and there are many steps that occur before the application of ink onto a folio. In a sort of assembly line fashion, each stage was separated out and was tackled by a specific individual – those who sourced the vellum, made the parchment, and arranged the quires. The labor, process, and materials involved in the making of manuscripts during the medieval period ensured the longevity of their survival. A number of medieval texts provide contemporary scholars a glimpse into the processes of

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[164] Keith Busby, *Codex and Context: Reading Old French Verse Narrative in Manuscript*. (Amsterdam and New York: Rodopi, 2002); Erik Kwakkel, *Books Before Print* (Leeds: Arc Humanities Press, 2018); Michael Johnston and Michael Van Dussen, eds., *The Medieval Manuscript Book: Cultural Approaches* (Cambridge: Cambridge University Press, 2015); Jonathan Wilcox, ed., *Scraped, Stroked, and Bound, Materially Engaged Readings of Medieval Manuscripts* (Turnhout: Brepols, 2013).

manuscript construction. One such text, found in BL MS Harley 3915, (fol. 148r in particular) outlines the process of making parchment in thirteen steps, described below.[165]

The first step in the manuscript making process is thoroughly dehairing and cleaning the animal hide – often goat or calf skin – before it is stretched and dried. When treated, the hide becomes "vellum" or "parchment."[166] The parchment is then cut into rectangular sheets, "a bifolio." Once sized and cut, the bifolios were subsequently folded in half with each half of the bifolio, called a singular "folio." It is in this stage of cutting and sizing, that the cartographic dimensions of the manuscript-making process come into play. Just as the Tournai map maker adapted the space of the folio page to fit cartographic imagery, so too was the craftsmen challenged to make the best use of his animal hide and find the most appropriate sizing within its once natural and organic shape.[167]

Once the hide was cut apart, and the bifolios were created, the craftsman would then "rule" the page. A painting of Saint Matthew from the Dinant Gospels illustrates this process (Rylands

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[165] Raymond Clemens and Timothy Graham, *Introduction to Manuscript Studies* (Ithica: Cornell University Press), 4, 11.

[166] Ibid., 9.

[167] Not quite relevant for this dissertation, but worthy of noting, are the maps of Opicinis de Canistris, from the fourteenth century, whose maps specifically adapted to original shape and size of the vellum. See Karl Whittington, *Body-Worlds: Opicinus De Canistris and the Medieval Cartographic Imagination*, (Toronto: Pontifical Institute of Mediaeval Studies, 2014).

Latin Ms. 11, f. 15v).[168] The Saint holds a ruler with his left hand, pressing down onto the page that is tilted toward the viewer, and with his right, using a stylus, he draws straight lines across the plane. The spiritual dimensions of this process are represented by an angel who hovers to the Saint's right, who holds a scroll, signaling the format of material in which knowledge was once transmitted (**see Figure 27**).

To ensure that the lines were spaced uniformly, small holes were pricked along the edges of each bifolio, and then with a stylus and ruler, the maker would connect the dots and draw lines across the flat plane, as shown in the Dinant Gospels. The spaces between the scored lines were measured according to the size of the future script. In the early twelfth century, only the outer margins of bifolios were pricked. By 1150, pricks appear in the inner margins as well, which suggests that the leaves were folded first before ruling – this is the case with the TMM.[169] Bands of parallel vertical lines were also inscribed along the fore- and inner- edges of the folio, marking the margins. These lines define not only the width of column, but they also often designated space for larger initials, entered by an artist after the main body of the text was written.[170] After the ruling process is complete, what remains is a grid, ready to receive script.

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[168] See, Manchester, John Rylands University Library. Rylands Latin Ms. 11, f. 14. After Christopher De Hamel, *Medieval Craftsmen: Scribes and Illuminators* (London: British Museum Press, 1992), 22.

[169] De Hamel, *History of Illuminated Manuscripts*, 91.

[170] Clemens and Graham, *Introduction to Manuscript Studies,* 16, 21.

Once the text was inscribed (a process explored in the next section), the maker would then stack four or five folded bifolios, forming a "gathering."[171] Several gatherings were constructed, stacked on top of one another. Roman numerals at the bottom of the last folio of the gathering, "signatures," indicate the order in which the stack was to be arranged. These numerals are present in the Tournai Map Manuscript, with the exception of the last quire – the last folio of which the maps inhabit.

The maker would then orient the stack so that the folded portions were facing out then slice several cuts into the folds – the distance between the cuts dependent on the width of the parchment, with the actual cuts measured to the size of a thick chord, which would become the "support" of the structure. The cuts in the quires where the supports once lived are barely visible in the TMM, having been patched in with conservation paper. Quires five and six show vestiges of the small incisions cut by the medieval maker. Six supports (not evenly spaced) once held the gatherings together. Stitching the gatherings onto the supports took special skills, tools, and concentration. To fix the stack to the supports, the maker first needed to make chords taught using a stretcher frame. The cuts on each individual gathering were then aligned with the supports.[172] The maker then looped thread around and in-between the incisions to fix the gatherings, now called "quires," onto the supports.

The idea of cartography within manuscript making lies in the process - in the sizing of the bifolios, ruling the folios, their folding, stacking, and then arrangement into quire structures.

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[171] Clemens and Graham, *Introduction to Manuscript Studies,* 14.

[172] Clemens and Graham, *Introduction to Manuscript Studies,* 50-1.

Cartography is latent within the method of sewing the quires together for instance – the journey of the thread from one cut to the next. Cartography becomes easier to envision within this manuscript-making context, however, when considering the processes by which text is inscribed, the subject of the next section.

The cartography of inscription

In this section, I explore the visual and material nature of writing, building on the work of Michelle Brown, who argues that script, in particular the planning and placement of larger illustrated initials, should be considered within scholarship on medieval schematic and diagrammatic imagination.[173] To assess the cartographic nature of writing, we must again return to the process by which text is inscribed in manuscripts.

The scribe had to plan accordingly which part of the parchment receives specific tracts. Because bifolios are disbound when the scribe pens the text, one can surmise that the text was not being copied in a linear manner. For example, the maps in the TMM occupy the last folio of the ninth quire that is connected to a bifolio – the other half of which is situated within the *Book of Hebrew Places*, on folio 60. For folio 60r-v, the right portion of the folded bifolio (to become fol. 64r-v) would have been left empty for some sort of full-page imagery, or end leaf (**see Figure 28**). The next excerpt of text would then be inscribed on an entirely different piece of parchment, and so on. The map maker, then, would have drawn the map on a bifolio shared with text or a ruled page. Thus, when he flipped the folio back and forth to draw and re-draw the maps

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[173] Michelle P. Brown, Ildar H. Garipzanov, and Benjamin C. Tilghman, eds., *Graphic Devices and the Early Decorated Book*, (Woodbridge: The Boydell Press, 2017), 1-3.

(which I will explain in greater detail later in this chapter), he would have seen either a ruled folio on the other half, or one filled with text. This particular bifolio thus became a landscape of text and image with the grid as the common dominator – the manifestation of Hugh of Saint Victor's *Three Best Memory-Aids*: *locus, tempus*, and *numerus*.

After the main body of the text has been penned in with oak- or iron-gall ink, artists and illuminators add their contributions to the manuscript. The placement of images within the codex is a calculated process, and we know that the images were drawn or painted after the text was penned in. There are many examples of unfinished manuscripts where it is clear that there was an intention to draw or paint images within, because of the large spaces that are left empty. In BL Add. MS 15219, a manuscript from Tournai containing the map maker's drawings and notes that I explore in-depth in the next two chapters, there are many gaps left in its copy of the *Book of Holy Places*, originally written by Adomnán of Iona in the seventh century. For BL Add. MS 15219, it is likely that some of the open spaces were intended for diagrams, because several extant versions of Adomnán's text include plans of buildings that accompany descriptions of important places, which I explore in the next two chapters.

Returning to the TMM, it is clear that there was much to be calculated in advance. With two of the major works in the manuscript being lexicographical works – those arranged in alphabetic order – the process in planning the placement of each larger letter (*littera notabiliores*) is palpable. For instance, on most folios within the *Interpretation of Hebrew Names*, such as folio 35v, small letters written in red ink appear along the outer margins, inscribed as a guide for the not only the artist of the larger letters – each designating the specific line for which letter to illustrate – but also for the scribe, who needed to allocate space for the larger letters to come. The

Book of Hebrew Places shows notes of this nature in the margins as well (on fols. 48v – 49r). It is apparent that the larger letters came after the main text was penned in, because there is often a bit too much space allotted for the larger initials.[174]

Flipping through the manuscript, the large pen-flourished or inhabited letters that begin each of Jerome's texts first catch attention.[175] It is clear that the artist took great care in drawing these letters. Varying degrees of contour line work were employed, signaling that he used several different sized quills. The large "N" on folio 22v beginning *Non statim* in the *Interpretation of Hebrew Names* was rendered carefully (**see Figures 29 and 32**). Like all other pen-flourished or inhabited initials in the manuscript, the "N" utilizes bright green and red-lead pigments with yellow ochre framing the background, likely meant to represent gold leaf that adorns historiated initials in more lavish manuscripts. This initial displays design characteristics similar to several pictorial signs on the map, some drawn in red ink. In particular, the rendering of the horizontal bands of line with circles trailing alongside, present in the cross section of the "N" in *Non statim*, is reminiscent of the character of the linework apparent in the Persepolis city icon on the map of Asia, one of the few city ideograms included.

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[174] See Clemens and Graham, *Introduction to Manuscript Studies*, 21.

[175] According to the British Library Glossary of illuminated manuscripts, pen-flourished initials are those that use a quill with ink and no gold or silver leaf. An "inhabited letter" is the term for initials that have animal or human figures within, but do not display a narrative scene**;** "Catalogue of Illuminated Manuscripts: Glossaries," https://www.bl.uk/catalogues/illuminatedmanuscripts/GlossI.asp#INITIAL.

The pen-flourished, inhabited letters and *littera notabiliores* serve as important aids for the reader who relies on these larger letters to successfully navigate the encyclopedic nature of the text. Hugh of Saint Victor emphasizes the importance of the larger letters within *ars memoriae*:

> Therefore it is a great value for fixing a memory-image that when we read books, we strive to impress on our memory through the power of forming our mental images not only the number and order of verses or ideas, but at the same time the color, shape, position, and placement of the letters, where we have seen this or that written, in what part, in what location (at the top, the middle, or the bottom) we saw it positioned, in what color we observed the trace of the letter or the ornamented surface of the parchment.[176]

Larger letters also provide sequencing of various kinds. For texts that are non-sequential, like the TMM, historiated and larger illustrated initials provide the reader with multiple points of entry. Psalters for instance, which hold the biblical *Book of Psalms*, recited, and read out of numerical order, often have historiated initials that mark the major divisions. The cartography of the manuscript thus lies not just in the process of writing the text, but reading it as well, engineered by the hierarchical arrangement of letters (explored further in Chapter Three).

There is a cartographic dimension to the less sumptuous text as well. There are many instances in which words are squeezed to fit within a single line due to the constraints given to the sizing of page and the number of folios allotted for certain books. Conversely, throughout the TMM, there are moments in which the scribe needed only a little additional space for a passage. To save space, and not occupy a whole line for one or two words, the few extra words are shifted to the leftmost margin of the next ruled line. In these instances, a specific type of line resembling a "J" was penned in to differentiate this portion of text from that which occupies the left portion of the

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[176] Carruthers, trans., "The Three Best Memory-Aids for Learning History," 342.

line, which was part of a new sentence entirely. The map maker also uses this particular "J" symbol as a sort of medieval asterisk in his other works, a technique explored in Chapter Four.

Script is used as a visual device within both the body of the main text, as well as the maps. For example, the technique of "kerning," which is associated with printmaking and designates type that has extra space inserted between each letter, provides a visual cue to distinguish phrases or words from others on the page. Giving the text a spatial dimension could also be an oral cue for the reader to sound out the syllables, slowing down the recitation as a sort of literary performance.[177] Kerned text is often used for incipit, explicit and rubrications, as we see in the TMM. On folio 35v the scribe has spaced out the letters to fill the whole line. In addition to the red color of the text, kerning here is used to distinguish it from the rest of the script on the page.

In contemporary cartographical design, kerned text communicates toponyms that encompass large expanses of space, such as bodies of water or regions. On the map of Asia, kerning appears on the inscription for "*C i l c i l i a*" and "*S y r i a c e l e s*." On the Psalter List Map (**Figure 9**), a map made up entirely of text, kerning is a technique employed to fill the allotted space such as "*Nor---weg---ia*," spread out to fit the last two lines of the Europe section.[178] Matthew Paris also utilized kerning as a visual device on his itineraries – the word "*j o u r n e e*" is inscribed along

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[177] For further exploration on the connection between the arrangement of text and aural aspect of reading see Michael Camille, "Seeing and Reading: Some Visual Implications of Medieval Literacy and Illiteracy," *Art History* 8, no. 1 (1985): 26–49.

[178] Mittman, et al., "Psalter World Map: Norwegia," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82.

the roadways to convey a sense of physical movement through space, as well as the passage of time.[179]

Cartographical ideas are present throughout the process of writing in a medieval manuscript, appearing in a form as simple as a ruled page. The organization behind the folio arrangement also took special planning, requiring the scribe to copy texts non-sequentially. This engineered a relationship with the act of inscription as a visual procedure rather than an activity associated with composing a sequential narrative or numerically ordered book like the *Psalms*. Cartography is also within the inscription process, which is a spatialized activity – best exhibited by the manipulation of the appearance of a word to fill a line, or to communicate a sense of geographical space, or time.

BL Add Ms. 10049

The Tournai Map Manuscript was created towards the end of the twelfth century at the Benedictine Abbey of Saint-Martin in Tournai, Belgium. According to an account by Hermann of Tournai written around 1142, the scriptorium at Saint-Martin was busy. Hermann writes that he "delighted in the number of scribes that the Lord had given him, so that if you went into the cloister you would commonly see twelve young monks seated in chairs and writing in silence at carefully and skillfully made desks."[180] His emphasis on the levels of creation – from writing, to the craftsmanship of the desks – suggests that the idea of *making* was a key actor within in the

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[179] Connolly, *The Maps of Matthew Paris*, 57-58.

[180] Harvey, *Medieval Maps*, 41, citing Georg Waitz, trans., "Liber de restauratione monasterii S. Martini Tornacensis," *Monumenta Germanie historica: scriptores* 14 (1883): 274–360, 313.

monastic culture at Tournai. Hermann goes on: "One could find all the books of Jerome in explanation of the prophets, all the books of St. Gregory the Great, and various books of St. Augustine, Ambrose, Isidore, Bede, and also Lord Anslem, abbot of Bec…". Indeed, the TMM is mentioned in the abbey's library catalog, dating from just after 1159: "Jerome on the Hebrew names in one volume."[181]

The manuscript is made up of nine quires with 64 folios, each measure around 250 x 320 mm, seven of which have four nested bifolios (see **Figure 30**). The third and last quire have only two nested bifolios, the center piece being a single folio. The composition of the third and ninth quires is certainly not the product of missing folios, because there are no missing tracts of the Latin text. On the last folio of each of the first seven quires are roman numerals, made for the craftsman assembling the quires together. The maps are on the last folio of the ninth and last quire, and interestingly do not include any roman numeral notation, likely to preserve the integrity of the Palestine map design (fol. 64v).

Many folios reveal the work of modern conservators, because it is clear that at some point, the manuscript was damaged, which perhaps led to its rebinding. The gutter side of most the bifolios in the manuscript have been repaired, and the bas-de-page of several folios have been made square with conservation paper. The script was thankfully retained throughout most of the manuscript, with only folios 2v-3r suffering some loss of text. Modern repairs have also filled in the many holes in the manuscripts, caused either by bookworms or the rigor of the parchment

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[181] Harvey, *Medieval Maps*, 41, citing Albert Derolez, et al. eds., *Corpus catalogorum Belgii: The Medieval Booklists of the Southern Low Countries*, vol. IV, (Brussels: Koninklijke Vlaamse Academie, 2001), 318.

making process. The holes were present during the time of making, because the scribe wrote around them and there are no missing tracts of text. The holes throughout the manuscript indicate that the parchment is not of the highest quality. After all, this book was crafted for an audience of Benedictine monks, and not a royal patron, who would have received a manuscript made up of bright white vellum, absent of such imperfections.

There are still vestiges of medieval repairs. For instance, a fixed tear appears on folio 55 retains its medieval thread, made out of waxed linen, or sinew. The same stitching method can be seen in the patch on the map folio, the largest hole in the manuscript – a testament to the monk's economic use of the parchment, as Paul Harvey stated.[182] Other tears have since lost their thread, such as one on folio 53v, but the holes made by the sewing needle are still present and were not patched in by modern conservators. This specific tear appears within a column of text, with the script carefully written around it.

The next section deals specifically with the notations of the Tournai map maker, who not only made the maps, but also aided in the assembly of this particular codex, as evidenced by his marginal notes by the main incipit texts, written for the artist of the larger pen-flourished and inhabited initials.

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[182] As suggested by Harvey, *Medieval Maps*, 40.

The marginal notes

Marginal notes within medieval manuscripts often tell us about the ways in which their manuscript was assembled, read, and understood.[183] There are many notations throughout the TMM, both in the margins, as well as above specific words that offer additional spellings of the places and names listed. Most relevant for this chapter are the notes that the map maker inscribed adjacent to the incipit texts. It is a rare circumstance in the history of medieval cartography to identify a map maker who was certainly aware of the works that the maps would be attached to and involved with the assembly of the codex in which the maps live. What follows are descriptions and translations of each of his incipit notes.

On each of the three folios that begin the Jerome works, notes written in the map maker's hand appear in the margins that map out the general placement and content of the *incipit* text to be illustrated. The first appearance of the map maker's hand occurs on folio 2r, the beginning of the *Book of Hebrew Questions on Genesis*. Here he writes, *Qui in principiis* ("And in the beginning"), along the bottom left margin (**see Figure 31**).[184] Moments in the marginal script can be connected to the hand on the map – the "standing S" in *principiif*, for instance, is mirrored in notations on the map of Asia such as *India Superior*.

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[183] Erik Kwakkel, "Cultural Residue in Medieval Manuscripts," in *The Medieval Manuscript Book: Cultural Approaches*, eds. Michael Johnston and Michael Van Dussen, 60–76, (Cambridge: Cambridge University Press, 2015), 60.

[184] C. T. R. Hayward, trans. "Hebrew Questions on the Book of Genesis by Saint Jerome the Presbyter," in *Saint Jerome's Hebrew Questions on Genesis*, (Oxford: Clarendon Press, 1995), 28.

Ten folios later starting the *Interpretation of Hebrew Names*, the text, *incip(it) prefatio beati ieronimi in libro nominu(m)* ("Here begins the blessed Jerome's preface to the Book of Names") runs along the bottom margin of folio 22v, just above a modern repair, inserted to make the page square (**see Figure 32**).[185] The contents of the larger, pen-flourished initials are noted separately from the display script.[186] The map maker wrote the initial text directly adjacent, *philo uir difertissim(us),* ("Philo, the most eloquent man.")[187] The "explicit" text appears on the right bottom margin of the page: *Explicit p(re)fatio Incip(it) lib(ro) nominu(m)*, ("The preface ends [;]Here begins the Book of Names") and above the initial notation, *non stati(m) ubicu(m)q(ue)* ("Not immediately,") followed by *ubicumque*, which is part of the actual content of the text on the next page.[188]

Finally, in the *Book of Hebrew Places*, he writes on folio 43v, *Incip(it) p(ro)logus eusebii hieronmi in libro locoru(m)*, ("Here begins the prologue of Eusebius to Jerome's Book of Places") and on the following page, *Eusebi(us) q(ui) a beato pa(m)ph(ilo),* ("Eusebius, who [derived his surname] from the blessed [martyr] Pamphilus") at the bottom of the left column, just above a medieval fixture, similar to the patch on the map, which makes the island of

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[185] English translation by Matthew Boutilier, email message to author, July 2018.

[186] According to the British Library Glossary of Illuminated Manuscripts, display script is the specific text that ornaments the first part of the incipit passage. See "Catalogue of Illuminated Manuscripts: Glossaries," last modified ?, https://www.bl.uk/catalogues/illuminatedmanuscripts/GlossD.asp#DISPLAYSCRIPT.

[187] Boutilier, email message to author, July 2018.

[188] Boutilier, email message to author, July 2018.

Crete.[189] Beneath the right column of text is, *expl(icit) p(ro)log(us)* [,] *Incipi(t) lib(er) nom(inum) Locoru(m),* ("Here ends the prologue, and here begins the Book of Names of [Hebrew] Places.")[190] Directly adjacent to "Ararat" is a note that also includes the first few lines of the main text - *ararat armenia Si q(ui)de(m),* ("Ararat Armenia. In as much as it is asserted...") the mountain where Noah's Ark is.[191] The Ark is represented on both maps – on the map of Palestine the label reads "Armenian Mountains, where the Ark settled" (**see Figure 13**).[192]

These notes are evidence that the Tournai map maker was certainly aware that his maps would be connected to the *Interpretation of Hebrew Names*, *Book of Hebrew Questions on Genesis* and *Book of Hebrew Places*. They further signal a distinct moment in the history of cartography. Twelfth-century maps bound in books often follow typological models (**Figures 9-11**, and **Figure 8**), but now we can understand the TMM as representing a moment when the maps are specifically designed to work within their textual context and function as scientific tools to complement textual information in the body of the manuscript, as I will show further in Chapter Two.

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[189] G.S.P. Freeman-Grenville, trans., "The Onomasticon by Eusebius of Caesarea and the Liber Locorum of Jerome," in *The Onomasticon by Eusebius of Caesarea*, eds. G.S.P. Freeman-Grenville, Rupert L. Chapman III, and Joan E. Taylor, (Jerusalem: Carta, 2003), 11.

[190] Boutilier, email message to author, July 2018.

[191] Freeman-Grenville, trans., "Onomasticon," 12.

[192] Brott, et al. eds., "Tournai Map of Palestine: Ararat," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82 (forthcoming).

The materiality of the Tournai maps

The map folio is connected to a bifolio that forms the last leaf of the ninth quire (see **Figure 30**). The map of Asia occupies the recto (fol. 64r), and the map of Palestine, the verso (fol. 64v). In an accessible location on the last folio of the manuscript, the folio on which the Tournai maps were drawn is the most touched and used page in the entire manuscript, suggesting that the maps functioned as reading guides or visual tools to navigate and contemplate the information in the manuscript.[193]

The folio also feels different from the others, in part because it underwent extensive manipulation – there are almost 100 erasure marks, and scraping away layers of skin caused the folio to have a distinct texture. The folio was pricked along the outer margins, in case it was chosen for receiving a text, but the map portion of the bifolio was never ruled. The folio to which the maps are connected, folio 60, also has a softer feel, the result of extensive handling on the part of the map maker, who flipped the folio back and forth many times, editing and redrawing the maps, described further below.

In 2006, Paul Harvey, in collaboration with technicians from the British Library, utilized Forth Photonics multi-spectral imaging systems to find that each map has a draft version beneath it. The many erasures peppered throughout the compositions reveal various iterations of their overall design and layout. They discovered that the map of Asia first began as one of Palestine, before the map maker scraped away everything, and flipped the folio over to begin fresh on the

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[193] On patterns of usage of medieval manuscripts see Kathryn M. Rudy, "Dirty Books."

verso.[194] The folio seems to have functioned similar to a wax tablet, a medium often used for temporary writing or note-taking.[195]

There are two types or characterizations of erasures present on the maps. The first type entails those scraped away to allow for the complete re-drawing of the first version of the Palestine map, now underneath the current map of Asia. This first draft of the map of Palestine was drawn at a smaller scale and was more focused on the area directly around Jerusalem. For the present map of Palestine, now on the verso, the map maker widened the scope to include more place names and utilize outside source material (**see Figure 33**).

On the original map of Palestine, underneath the current map of Asia, large tracts of text once engulfed the upper and lower portions of the folio. One such erasure encompasses 19 lines of text. Harvey has uncovered a few place names, suggesting the following:

Qui [uult] usque Ierusalem
//////////e Ptholomaida
[8 empty lines]
//////////////////////golgotha
//////////////////////e(a) exe[unt]
///////xpla//////////////////////
/////c(ru)cifix[us]
////////////////////////////////////
////////////////////////////////////
//eccl(es)i(a)e [cruci(fixu)s] ex(tra) portam
//////////////////ta quare(m)tene

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[194] Harvey, *Medieval Maps*, 50.

[195] Thomas O'Loughlin, "Adomnán's Plans in the Context of His Imagining 'the Most Famous City'," In *Imagining Jerusalem in the Medieval West*, 15–40, (Oxford: Published for the British Academy by Oxford University Press, 2012), 22; on the use of wax tablets as a canvas temporary writing see Clemens and Graham, *Introduction to Manuscript Studies*, 4.

//////////////[196]

Harvey argues that the erased paragraphs were probably a summary of the holy sites in Jerusalem, copied from another manuscript. He states that the text begins with "anyone who wishes to travel to Jerusalem should go to Ptolemaida" (or Acre). This phrase is certainly not directly derived from the Antonius of Piacenza itinerary or the *Transmarians sacris*, two pilgrimage texts that the Tournai map maker either copied or made notations within (BL Add. MS 15219, fols. 2r-v, 3r-11r).[197] More research is warranted on the role of pilgrimage itineraries on the Tournai maps beyond their formal and toponymical relationships that Arad has also explored in *Christian Maps*, which links the Tournai map of Palestine to "circular-Jerusalem" maps derived from pilgrimage literature.[198] While Arad does not mention these erasures in her work, it is this first iteration of the map of Palestine that is closer to the maps of the city of Jerusalem, because the inscription goes on to include Golgotha, the word "crucified," and likely,

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[196] Harvey, *Medieval Maps*, 42-3. The forward-slash indicates tracts of text that he was unable to decipher.

[197] Paul Harvey identified the Tournai mapmaker's hand throughout BL Add. MS 15219, see Harvey, *Medieval Maps*, 51–2. Currently, both Harvey and the British Library collation of BL Add. MS 15219 state that the text that the mapmaker wrote the marginal notes adjacent to Antonius of Piacenza's *Tour of the holy places.* This is a misidentification however and the text that he writes notes on however is the *Transmarians Sacris*. See J.-G. Fick, trans. *Itinera Hierosolymitana Et Descriptiones Terrae Sanctae Bellis Sacris Anteriora & Latina Lingua Exarata Sumptibus Societatis Illustrandis Orientis Latini Monumentis* (Geneva: Press J.-G. Fick, 1879).

[198] Arad, *Christian Maps*, 39-46.

"the church of the Cross outside the gate."[199] The initial map of Palestine was thus once conjoined with text, with visual and narrative space linked together on a single plane.

The second type of erasure present on both maps entails place names that have been moved around the composition.[200] One example on the map of Asia is the movement of *derbe ciu(itas)*, originally inscribed within the province of *Isauria* in modern-day Turkey. The map maker then moved the inscription to the city's correct location within *Licanoia*.[201] Erasures of this kind are also present on the map of Palestine, such as *Mons Gelboe*, which was moved slightly west. The map maker also transplanted entire regions. On the current map of Palestine, modern-day Turkey once occupied the northern portion of the map, but was scraped away, and given a larger section on the map of Asia. This marks the second occasion in which the map maker widened the extent of his drawing.

The map folio has a distinct material character from all others in the manuscript. While the folios containing the body of the Jerome series remain taught (partially due to modern conservation), the map folio is soft, almost flimsy. This is in-part due to the multiple periods of exfoliation the folio endured from the many amendments the map maker made along the way of constructing the images. The maps were also handled and amended long after the twelfth century, evidenced by a body of five inscriptions added as late as the fifteenth century that Paul Harvey identified

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[199] Harvey, *Medieval Maps*, 51-2.

[200] Harvey, *Medieval Maps*, 40-59.

[201] Brott, et al. eds., "Tournai Map of Asia: Derbe Ciuitas 1 [and] Derbe Ciuitas 2? [erasure]," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82.

(see **Figure 26**).[202] The erasures and additions signal their significant use as drafts for the map maker, and as reference materials for the future user. In the next chapter I explore the interrelationships between the maps and the Jerome series, which provides more context for the material nature of the map folio, the most frequently handled in the manuscript.

Conclusion: Map and Maker

This chapter explored how the manuscript-making process in the medieval period involved cartographical thinking, which extends from cutting, folding and arranging the quire structure, to ruling the folio and planning the application of text. When it came to the maps, the Tournai maker was tasked not only with representing Asia and Palestine separated out from the rest of the world, but also with representing these regions within the confines of a single folio, rendering the pair of maps unusual within the history of cartography, because other regional maps do not appear until the fourteenth-century.[203] The fact that the map maker continually widened the frames of the maps reveals his method in representing an area of geography that could act as companions to the Jerome series they are bound to, given that the maker was certainly aware of the works that the maps would have been associated with, evidenced by his marginal notations. The next chapter explores their usage – providing further context as to why the folio is the most touched and used page in the manuscript.

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[203] Woodward, "Medieval Mappaemundi," 283.

CHAPTER THREE: MAP AND TEXT

Introduction

This chapter outlines how the maps interact with the content of three Jerome works in the Tournai Map Manuscript (TMM). The first text bound in the TMM is his original work the *Book of Hebrew Questions on Genesis* (henceforth *HQG*, fols. 1v-21r, completed c.391-3). Two Latin translations of earlier Greek works follow: the *Interpretation of Hebrew Names* (henceforth *IHN*, fols. 22v-43v, completed c.388), a work by Philo of Alexandria from the first century, and the *Book of Hebrew Places* (henceforth *BHP*, fols. 44r-63v, completed c. 390), originally titled (in short) the *Onomasticon* written by Eusebius of Caesarea less than a century before Jerome translated it into Latin and added information about Christian sites in Jerusalem.[204] Perhaps because Jerome intended that his works be consulted alongside each other as exegetical reference texts, many twelfth-century manuscripts group the three together. [205] One such was produced at Saint-Amand, which was in the diocese of Saint-Martin in Tournai. It is part of a compendium containing a number of Jerome works, including letters and all three works from the TMM, each of which begin also with a large, illustrated letter.[206] Manuscripts that group these Jerome works

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[204] C. T. R Hayward, *Saint Jerome's Hebrew Questions on Genesis*, (Oxford: Clarendon Press, 1995), 26.

[205] On the exegetical uses of these works, see Hayward, *Saint Jerome's Hebrew Questions on Genesis*, 14; Freeman-Grenville, trans., "Onomasticon," 8; Eyal Poleg, "The Interpretations of Hebrew Names in Theory and Practice," in *Form and Function in the Late Medieval Bible*, 217–36, (Leiden: Brill, 2013), 227; A list of manuscripts containing the three works in the TMM can be found in Bernard Lambert, *Bibliotheca Hieronymiana Manuscripta: La Tradition Manuscrite des œuvres de Saint Jérôme*, (Steenbrugis, in Abbatia S. Petri; ('s-Gravenhage: Martinus Nijoff, 1969), II, 199–202.

[206] "BnF Gallica: S. Hieronymus II," https://gallica.bnf.fr/ark:/12148/btv1b10035929k/f251.item.

together were designed to answer targeted and direct questions about a person or place in scripture that is recited throughout the daily liturgy. The TMM stands out from the corpus however, because of the inclusion of the maps, as well as the manuscript's somewhat lavish nature. The inclusion of the maps offered the monk an additional approach to the Jerome's texts, allowing him to use the maps as a point of departure.

While there are over one-thousand places and names mentioned in the body of the works, most of the places indicated on the maps are mentioned within the text. **Table 1** shows the quantitative relationship between both maps and the works in the manuscript, and **Tables 3 and 4** parses out the data, which lists all of the places on each of the maps, indicating which text each place name appears in. **Figures 34 – 37** visualize the data. Outlining the data is important, because their relationship must be established to understand how the maps were used as dynamic heuristic tools. Most emphasized in scholarship is the relationship between the Palestine map and the *BHP*, the third and last Jerome work in the manuscript. Their companionship is palpable (**see Figure 37**) and is strengthened by the association between the erased place names from the *BHP* on the original version of the Palestine map, now beneath the map of Asia (as **Table 4** shows). The maps also relate to the two other Jerome works in the manuscript, often in very explicit ways. In the *HQG* for instance, Jerome's original commentary, he writes a passage for Genesis 14:14's indication of the river Dan, "Dan is one of the sources of the Jordan. For the other source is indeed called Jor, which means *rheithron*, that is 'a brook.' So when the two sources which are not very far distant from one another are joined together into one small river, it is finally called

Jordan."[207] The confluence of the Jor and Dan is featured on both Palestine and Asia maps, as well as many other from the maps made in this period. With the Tournai Maps, however, it is important to note that the description of the Jor and Dan in Jerome's commentary predates Isidore of Seville's *Etymologiae,* a known resource for the Tournai map maker, and draws directly on Jerome as the original source of this information.[208]

Making and consulting historical works composed by Church fathers were pious acts in a twelfth-century Benedictine monastery. The TMM, then, provided a conduit for the monks in the scriptorium to mirror the church fathers not only by making copies of their texts, but also through enhancing their content. In the next section I explore Jerome's place in twelfth-century monasticism, followed by a summary of each work in the manuscript. I then illustrate how the texts relate to the toponymical information on the maps including a discussion of the erasures noted in Chapter Two. The last sections explore his diagrams in other manuscripts from Saint-Martin, arguing that the ways in which they function explain further the choice to include the maps alongside the Jerome series.

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[207] Folio 8r: *dan aut(em) unu(s) e fontib(us) e(s)t iordani(s). Nam (et) alter uocat(ur) Ior q(uo)d int(er)pretat(ur) ritron id (est) riuu(s) duob(us) (ergo) fontib(us) qui haud p(ro)cul a (s)e di(s)tant in unu(m) ruiulu(m) federati(s) iordani(s) deincep(s) appellatur*; C. T. R. Hayward, trans. "Hebrew Questions on the Book of Genesis by Saint Jerome the Presbyter," in *Saint Jerome's Hebrew Questions on Genesis* (Oxford: Clarendon Press, 1995), 47.

[208] Dan Terkla, "Books and Maps: Anglo-Norman Durham and Geospatial Awareness," in *A Critical Companion to English Mappae Mundi of the Twelfth and Thirteenth Centuries*, eds. Dan Terkla and Nick Millea, 68–91, (Woodbridge: Boydell Press, 2019), 85.

Seeking Jerusalem through Jerome

A rich compendium of texts centered on Holy Land geography, the TMM reflects the fascination with Jerusalem in twelfth-century monastic centers. Throughout this period, the Holy City was contested territory and to neutralize the threat of losing Jerusalem, monks contemplated *loci sancti* associated with the life of Christ. [209] The focus on Holy Land geography extended from the scriptorium to the liturgy. In a Benedictine monastery like Saint-Martin's, the monks recited the Psalms during the eight offices throughout the day. The content of many of the verses center on the reclamation and retention of Jerusalem.[210] Many of the prayers are set in the present tense, which set the monks physically within the Holy City. Indeed, as liturgical historians have argued, by simply speaking the word "Jerusalem," the monks call it forth not just in their minds but also within the sacred space of the monastery they occupy.[211] In scriptoria, there was an increasing focus on producing images exploring Old Testament themes (i.e. stories set in the Holy Land) as

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[209] The manuscript was completed by 1159, only a few decades before Jerusalem was taken by Saladin in 1187. See Harvey's explanation of the historical context in which twelfth-century Holy Land were made in Harvey, *Medieval Maps*, 3-4. It is probable that the maps were made before 1159, because of their presence in a catalog of the library made in that year. See Harvey, *Medieval Maps,* 40, citing Derolez, *The Medieval Booklists of the Southern Low Countries,* 323. Thus, the date of c. 1150 is often given to the maps.

[210] The Psalms are littered with place names, and many of them appear on the Tournai Maps. See my article that discusses the geographical nature of the prayers, LauraLee Brott, "The Geography of Devotion in the British Library Map Psalter," *Cartographica: The International Journal for Geographic Information and Geovisualization*, Vol. 53, no. 3 (2018): 211–24.

[211] Thomas O'Loughlin, "The De Locis Sanctus as a Liturgical Text," in *Adomnán of Iona: Theologian, Lawmaker, Peacemaker*, edited by Jonathan M. Wooding, Rodney Aist, Thomas Owen Clancy, and Thomas O'Loughlin, 181–92, (Dublin: Four Courts Press, 2010), 187-89.

well as copying works written by the Church fathers, which prompted them to mirror these figures in a myriad of ways.[212]

A reference text like the TMM allowed the monk to emulate Jerome first through the act of copying and consulting his works and keeping the interest in Hebrew and Greek translation alive. Consulting the TMM also prompted the monk to mirror Jerome's research methodologies – Jerome famously took a pilgrimage to the Holy Land, which allowed him to conduct empirical research. His empirical method was perhaps inspired by a lineage of pilgrim-scholars: Eusebius (original author of the *BHP*), Pamphilius (Eusebius' teacher), and Origen (Pamphilius' teacher) all were said to have taken a pilgrimage or a research-based journey.[213]

Further connecting the TMM to the idea of pilgrimage, Eusebius' *Onomasticon*, the original Greek version of the *BHP*, was circulated as a tool for pilgrims in its time – the fourth century Egeria was said to have had a copy on hand as she journeyed through the Holy Land.[214] In both Jerome's period and the twelfth-century, pilgrimage was a flourishing phenomenon, but because

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[212] While the later thirteenth century is the culmination of crusader art, it is reasonable to apply this trend to earlier periods. See Daniel H. Weiss, "The Old Testament Image and the Rise of Crusader Culture in France," in *France and the Holy Land: Frankish Culture at the End of the Crusades*, 3–21, (Baltimore: Johns Hopkins University Press, 2004).

[213] Megan Hale Williams, *The Monk and the Book: Jerome and the Making of Christian Scholarship* (Chicago: University of Chicago Press, 2006), 63–64; Freeman-Grenville, trans., "Onomasticon," 2.

[214] Gary Vikan, *Early Byzantine Pilgrimage Art*, (Washington D.C.: Dumbarton Oaks Research Library and Collection, 2010) – though he does not specify whether she had Eusebius's specific *Onomasticon*.

the twelfth-century monastic readers could not travel and observe the Holy places on their own, the maps provide a crucial dynamic. For the cloistered monk, reading the maps alongside the works in the manuscript complemented the journey to the Holy Land and its wider parts, engineered by the place name associations between maps and texts (see **Figure 34**). The quantitative data is enlivened by how the content of the series work together, and how the maps complement the information within. The next section explores the ways in which the content of each work in the manuscript can be connected to the maps.

The Jerome series in the TMM

After Jerome left Rome in the late fourth century, where he was employed under Pope Damasus, he settled in Bethlehem around 388 to complete his Latin translation of the Bible, which he finished around 405.[215] In the decades preceding, he was involved in many writing projects, the three works in the TMM among them.[216]

The *IHN* and *BHP* are both translations of earlier Greek works and are part of a large number of encyclopedic texts selected for mass production in the twelfth century as aids for exegetical contemplation.[217] The *HQG* is its own genre, an *opus novum* as Jerome described, also generally

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[215] Williams, *The Monk and the Book*, 64.

[216] Ibid., 85, 93.

[217] Christopher de Hamel, *History of Illuminated Manuscripts*, (London: Phaidon Press, 2014), 98, notes that encyclopedia format saw an increase in the twelfth century.

agreed to be an exegetical text.[218] All three works center on the geography of the Holy Land, as well as the important aspect of translation – whether places, names, or passages in scripture are derived from the Hebrew codices or the Greek Septuagint and the sources thereof. Jerome added to Eusebius's preface of the *BHP* stating that "I am either interpreter or the author of a new work, the more so when – scarcely initiated in early writings – one has ventured to turn what is not Latin in a manner into the Latin tongue."[219] Even copying Jerome's work in the twelfth century registers as a means of translation in the TMM – as one of many examples, on folio 58v in the *BHP*, *Magdali* appears with "+diel" written over the "dali" portion of the place name (which appears on the map of Palestine as *Magdall(us)*, **see Figures 2 and 4**). All three Jerome works also reference various sources, including Virgil, the celebrated first-century Roman poet.[220] We know that Jerome also relied heavily on Jewish scholars such as Josephus in most of his writings, a fact that he either concealed or defended in his prefaces.[221] Finally, linking the works together is their interdependence: the works cite each other throughout. For example, in the *HQG*, Jerome cross-references the *BHP* on his discussion on *Sochoth*, a place name indicated on the map of Palestine and mentioned in Genesis 33:17. He writes: "Where we have

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[218] Williams, *The Monk and the Book*, 79-82; Hayward, *Saint Jerome's Hebrew Questions on Genesis*, 6, 13-14.

[219] Folio 44r: "*...me (vel) int(er)prete(m) e(s)(s)e u(e)l noui op(er)i(s) conditorem maxime cu(m) quida(m) uix p(ri)mi(s) imbut(us) litteri(s) hunc eundem libru(m) au(s)u(s) (s)it in latina(m) lingua(m) non latine uertere*"; R. Steven Notley and Zev Safrai, trans., *The Onomasticon: The Place Names of Divine Scripture Including the Latin Edition of Jerome*, (Boston: Brill, 2005), 3.

[220] Hayward, trans., "Hebrew Questions," 69.

[221] Hayward, *Saint Jerome's Hebrew Questions on Genesis*, 14,19; Williams *The Monk and the Book*, 66.

Tabernacles, *sochoth* is read in the Hebrew. Indeed, to this day there is a city across the Jordan with this name, in the territory of Scythopolis, about which we have written in the Book of Places."[222] Both Sochoth and Scythopolis appear on the map of Palestine (Scythopolis appears a *Scitopolis*) – though their proximity does not match the *BHP*'s description (see **Figures 2 and 4**). On the map of Asia, there are numerous place markers indicating where various Scythian peoples settled, also including *Scitia Suprema* (see **Figures 1 and 3**).

The *HQG* is the first book in the manuscript, the only work in the TMM originally by Jerome (completed between 391-393). The text is arranged in numerical order, dictating passages in the *Book of Genesis* and beneath the verses (he does not discuss each one), a commentary on its translation or content. His commentaries often center on whether certain words or phrases are derived from Hebrew or Greek. To distinguish the Greek terms from Latin ones in the *HQG*, the scribe drew lines above the terms, such as *kataposis*, in his entry describing Bale and Segor in Genesis 14:2-3.[223] Given that the work is a commentary on *Genesis*, he also goes to great lengths to describe where the tribes of Canaan settled in fourth-century geography. For example, in Genesis 10:26-9 describes that Ophir, a son of Jectan (from the tribe of Canaan), "occupied the whole territory of India from the river Cophene, which is called Hieria."[224] The inscription on the

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[222] Folio 16r: *(U)bi no(s) tab(er)nacula habem(us) in hebero legit(ur) (s)ocoth. Socoth aut(em) u(s)q(ue) hodie ciuita(s) tran(s) iordane(n) hoc uocabulo in(ter) parte (s)citopoleo(s) de qua in libro locor(um) (s)crip(s)im(us)*; Hayward, trans., "Hebrew Questions," 71.

[223] Folio 7v: *bale lingua hebraea kataposis id e(st) deuoratio dicitur*; Hayward, *Saint Jerome's Hebrew Questions on Genesis*, 45.

[224] The Cophene is a tributary to the Indus River. The city sits on the Indus on the map of Asia. 3 Kings 9:26-8 describes that the city was approached by the Red Sea, which also matches the

map of Asia (Ultima Ophir) is between the Red Sea and Mount Maleus (**see Figures 1 and 3**), near the inscription for India.

While not directly toponymical, the *HQG* focuses on the geography of the Holy Land, as well as the wider territory surrounding it. The *Book of Genesis*, after all, begins with the creation of the earth. *Genesis* is also highly directional – for example, Genesis 13:14-15, reads "…look from the place which you are in now to the north, and to the south, and to the east, and to the sea: for all the land which you see, I shall give to you and your seed." Jerome comments:

> He set out the four regions of the world, east and west, north and south. Now let it be enough to point out here once for all the fact that in every scriptural passage where 'the sea' is always read, it always does duty for 'the west.' This is because the territory of Palestine is so situated that it has the sea as its western zone.[225]

The map of Palestine reflects this description, and because it is east-oriented, the Mediterranean Sea lines the bas-de-page. The geographical nature of *Genesis* would have likely been recognized by the monk consulting this work, heightened especially by the presence of the maps in an accessible location at the back of the codex – a feature with long standing survival, because most Bibles today include a map at the front or back of the text.

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description on the map, see "Douay Rheims Bible: 3 Kings 9:26-8," last modified 2017, https://drbo.org/chapter/11009.htm.

[225] Folio 7v, Genesis 13:14-15 appears in the manuscript as: *Leua oculo(s) tuo(s) (et) iude a loco in q(uo) n(un)c e(s) ad aquiline(m) (et) ad au(s)trum (et) ad oriente(m) (et) ad mare : q(uia) omne(m) Terra(m) qua(m) tu uide(s) (tibi) dabo eam et (s)emini tuo*; Jerome's comment follows: *Q(u)atuor climate mundi po(s)uit oriente(m) (et) occidente(m) (s)epte(m)trione(m) (et) meridian(um). Q(uo)d aut(em) in om(n)ib(us); (s)cripturi(s) legit(ur) Hic (s)emel dixi(s)(s)e (s)ufficiat mare (s)emp(er) p(ro) occidente poni ab eo quod Pale(s)tine regio ita (s)it ut mare in occidenti(s) plaga habeat*; Hayward, trans., "Hebrew Questions," 35.

The *IHN*, the second book in the manuscript, is an etymological work and was popular in the twelfth century; its content was integrated into sermons, and by 1230, it was a fixture in bibles.[226] The information in the text is ordered in a "two-tier" system – each section begins with a biblical book, followed by an alphabetically arranged list of names of both people and places. The entries strictly focus on their etymological origin rather than their narrative importance or location.[227] The descriptions for the Hebrew names are brief, sometimes only one single word. On the meaning of *Bethsur* (rendered *Betsura* on the map of Palestine), he writes *dom(us) robu(s)ti*, or "the house of the strong."[228]

Like the *IHN*, the *BHP* (the third and final texts in the manuscript) was designed, as Eusebius explains, for "… easy retrieval of names when they happen to occur here and there in the readings."[229] The lexicography of the *BHP* is different from the *IHN.* The text is arranged entirely alphabetically with subsections ordered by Biblical book, usually beginning with *Genesis*. Each entry contains historical information about the individual place name; many entries also include relational distance. For instance, Jerome's translation of Eusebius' entry for Galaad states: "The mountain to which Jacob fled on the seventh day of his journey from Carrae. It is at the back of Phoenicia and Arabia, and joined to the hills of Libanus, and extends across

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[226] Poleg, "The Interpretations of Hebrew Names," 228; also see Carruthers, *The Book of Memory*, 144.

[227] Poleg, "The Interpretations of Hebrew Names," 219.

[228] Folio 29r.

[229] Freeman-Grenville, trans., "Onomasticon," 11.

the desert...".[230] This description matches the placements of *Mons Galaad* and the *Montes Libanus* on the map of Palestine.

While the *BHP* is a translation of an earlier Greek work, Jerome augmented it to add information about Christian sites. In his description of *Aggai*, he added that "There also is a church built where Jacob slept as he passed through to Mesopotamia, whence also he gave it the name Bethel, that is, House of God. Of Aggai indeed only a few ruins remain and so mark the place."[231] Jerome also included empirical evidence gathered from his pilgrimage to the Holy Land.[232] In the description for Aemath, Jerome added, "By research I found the town of Aemath in Coele-Syria, which is now called Epiphania in Greek."[233] Only Coele-Syria and Bethel from these descriptions made their way onto the maps. Bethel was added as late as the fourteenth century, part of a larger group of additions (in multiple hands) made as late as the fifteenth century.[234] I

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[230] Folio 55r: *Galaad mon(s), ad que(m) (s)eptimo die p(ro)fectioni(s) e Carri(s) iacob p(ro)fugu(s) uenit. Est aut(em) ad tergu(m) phenici(s) et arabiae, collibu(s) libani copulate(s), extendit(ur)q(ue) p(er) de(s)ertu(m)*…"; Notley and Safrai, trans., *Onomasticon*, 39, 61; Hayward, *Saint Jerome's Hebrew Questions on Genesis*, 5.

[231] Folio 44v: *Sed (et) eccl(esi)a ibi edificata e(st) ubi dormiuit iacob p(er)gen(s) me(s)opotamia(m) unde (et) ip(s)i loco bethel id e(st) dom(us) d(ei) nom(en) impo(s)uit*"; Freeman-Grenville, trans., "Onomasticon," 13; Notley and Safrai, trans., *Onomasticon*, 6.

[232] Susan Weingarten, *The Saint's Saints: Hagiography and Geography in Jerome*, (Leiden and Boston: Brill, 2005), 196.

[233] Folio 46v: "*Ego aut(em) inue(s)tigan(s) repperi emath urbe(m) cele(s)(s)irie appellari; qu(a)e n(unc) Greco (s)ermone epiphania nuncupatur*"; Freeman-Grenville, trans., "Onomasticon," 21; Notley and Safrai, trans., *Onomasticon*, 25.

[234] Harvey, *Medieval Maps*, 59.

describe the additions in a later section. Next, I investigate the presence of the Tournai map maker in the manuscript.

The map maker in the text

That the map maker recognized the works' interdependence on each other is evidenced by marginal notes written adjacent to the specific place name in the *BHP*. For instance, on folio 52r, a note "*in genesis"* runs along the same horizontal axis as the city of Chalanne (see **Figure 38**), which appears on the map of Asia, near Babylon (see **Figures 1 and 3**). Here the map maker is clarifying that Chalanne, listed in the Book of Kings, is also mentioned in Genesis 10:10 as one of the cities founded by Nimrod. Indeed, Chalanne found within the section on Genesis on the previous folio. This note could also refer to the *HQG* in shorthand, as Chalanne is mentioned many times throughout *The Book of Genesis*.

On folio 61r, he writes "*in gen(esis) (i.e.) in bale*" on the same horizontal as Segor, likely referencing Genesis 14:8 (**see Figure 39**). In the body of the text to which this notation refers, Segor is described *(i.e.) bale (i.e.) zoara*, listed within the *Book of Genesis* section. This note also relates to the inscription for Bale on folio 49r in the *Book of Genesis* section: *bale qu(a)e e(st) (s)egor. n(unc) Zoara …, "*Bale, which is Segor. Now it is called Zoar…"[235] These notes prove that the cartographer was engaging with the ways in which contents of the main texts interact with each other. Like the notation for Chalanne, the notation also refers to his commentary on Genesis 14:2-3, in the *HQG*, which discusses Bale and Segor. He notes in the description for

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[235] Freeman-Grenville, trans., "Onomasticon," 31.

Bale that Segor, pronounced Zoara (as he also indicates in the *BHP*), was also known as the Vale of Salt Pits, or the Dead Sea.[236] The Dead Sea is on the map of Palestine (fol. 64v), linking the body of the text (notation for Bale, fol. 49r), the marginal notes (notation for Segor, fol. 61r), and the maps together.

Map and text

There are over 1,000 places and names listed in the whole Jerome series in the Tournai Map Manuscript, and on the maps a total of 490: 278 on the map of Asia, and 203 on the map of Palestine. In terms of a quantitative relationship between the maps and the Jerome series (**see Tables 1-3**), while a small number of places in the text are on the maps, conversely, most of the places on the maps are within the text (**see Figure 34**). The quantitative relationship between the maps and the texts is similar to how the *IHN* relates to the Bible because a large number of places discussed in the text draw from outside sources.[237] The monks consulting the TMM added further cross-references, as evidenced by a total of five *ali(us) lib(er)* (another book) notes in the margins made by a later scribe – one adding *bethele(m)* proceeding the, *ali(us) lib(er)* notation, perhaps suggesting an alternate spelling of Bethlehem, which appears in the body of the text as *bethemen*. On the Palestine map, Bethlehem appears as *Bethlee(m)*, as it does in the *HQG* (fol. 16v); in the *BHP* (fol. 50r), it is rendered *bethleleem*.

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[236] Freeman-Grenville, trans., "Onomasticon," 31.

[237] Poleg, "The Interpretations of Hebrew Names," 222, 227.

Scholars have mostly focused on the connection between the maps and the *BHP*, because it is likely that the choice to include a map in the TMM was an act to accommodate to Eusebius' original scholarly practice. In the preface to the *Onomasticon*, Eusebius indicates that the work is the last text of a three-part volume that included an image of possibly the tribal territories allocated by Joshua, as well as an image of the Temple of Jerusalem, or the Herodian Temple destroyed by the Romans in 70 CE.[238] The *BHP* is the only remaining text from the Greek series, and no Eusebian map or temple plan survives. While the maps in the Tournai manuscript do not show the territories of Joshua, or plans of the Herodian Temple, it is plausible to surmise that they were intended to bridge the gap in what was originally presented within the original Greek text, the *Onomasticon*, as aids to navigate the texts.

English translations of the preface to Jerome's *BHP* translate "map" from the term *chorografiam*, which is a distinct type of mapping based on a Greek idea of describing a regional landscape as it is observed; Ptolemy attributed (or even relegated) it to a craft of artists.[239] The idea of chorography has great salience when considering the regional extents of both maps, as well as their integral connection to a text filled with descriptions of places by relational distance using the term "paces"[240] (which I explore further in the Chapter Three). However, the TMM renders

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[238] Delano-Smith, "Maps and Plans," 5.

[239] Notley and Safrai, trans., *Onomasticon*, 3; On chorography, see Jesse Simon, "Chorography Reconsidered: An Alternative Approach to the Ptolemaic Definition," in *Mapping Medieval Geographies: Geographical Encounters in the Latin West and Beyond, 300–1600*, ed. Keith D. Lilley, 23–44, (Cambridge: Cambridge University Press, 2013), 23–25; also see Weingarten, *The Saint's Saints*, 206.

[240] Freeman-Grenville, trans., "Onomasticon," 35, only one of many examples of the use of the term "paces" in the *BHP*.

what has been translated "map" as *orthographia(m)*, a term referring to the ways in which a word is spelt (see **Figure 13**).[241]

Orthographical analysis is registered in the *HQG*. For example, in Jerome's description for Genesis 45:9-10 on the "Land of Gesen of Arabia" reads:

> 'Of Arabia' has been added, for it is not contained in the Hebrew books. As a result, a mistaken notion has spread abroad, that the land of Gesen is in Arabia. Besides, if as it stands in our codices it is written as gesem with a final 'M' (which does not seem at all good to me), it means *a land which has been rained on*. For gesem is to be translated *as shower of rain*.[242]

In the both the *BHP* and the *IHN* it appears as *Ge(s)em*. In the *BHP*, Jerome describes Gesem as "A region of Egypt, where Jacob lived with his children,"[243] matching the placement of *t(er)ra ge(s)(s)en* on the map of Palestine. While this is a harmonious example in terms of how a place name is rendered on a map in unison with the text, there are a number of alternative spellings between the series in the maps. *Betsura* on the map of Palestine is spelt *Bethsur* in the *BHP* and *IHN*. The difference in spelling speaks to the palimpsest of orthographical practice exhibited in the Tournai Map Manuscript, one that the user would have been very likely aware of. This is given that the *IHN* and the *BHP* are translations of Eusebius and Philos' Greek works, then

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[241] Folio 44r.

[242] Folio 18v: *hic arabie additu(m) e(st) in hebrei(s) enim uoluminib(us); n(on) habet(ur). Unde (et) error increbruit: q(uo)d t(er)ra ge(s)(s)en in arabia (s)it. Porro (s)i ut in n(ost)ri(s) codicib(us); e(st) p(er) extremu(m) m (s)cribit(ur) ge(s)(s)em q(uo)d m(ihi) nequaq(uam) placet: terra(m) (s)ignificat co(n)plutam. Ge(s)(s)em eni(m) in imbre(m) uertitur*; Further connecting the idea of orthography, above *imbre(m),* is a note *+ebreo*, suggesting an alternate form of spelling; Hayward, trans., "Hebrew Questions," 79.

[243] Folio 55r: *Ge(s)em regio eg(y)pti in qua habitauit iacob cum liberi(s) (s)ui(s)*; Freeman-Grenville, trans., "Onomasticon," 39; Notley and Safrai, trans., *Onomasticon*, 62.

rendered into Latin by Jerome and subsequently copied during the twelfth century and finally, translated into cartographical imagery by the Tournai map maker.

The relationship between the map and the Jerome series is as dynamic as are the works themselves. The TMM illustrates the ways in which the translation of places and names is a practice in constant flux, as is naming their location. Another example lies in the entry for Genesis 31:21, in the *HQG*, where he writes on the passages mentioning of Galaad, "Not that the mountain was called Galaad at the time; rather, as we have often pointed out, by anticipation it was invested with the name by which it was called later on."[244] The mountain is on the Palestine map, near the Anti-Lebanon mountains and on the other side of the Jordan River, matching the description in the *BHP*, which locates it "…at the back of Phoenicia and Arabia, and joined to the hills of Libanus, and extends across the desert to where once Seon, King of the Amorites, lived across the Jordan."[245] The anomaly here is the indication of Phoenicia (rendered *fenicia* on the map, see **Figures 2 and 4**) as a singular place instead of a region, because the script is not kerned as are regions on the Asia map, such as *Syria Celes*.

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[244] Folio 15r: *Non q(uo)d eo t(e)mp(o)r(e) galaad mon(s) diceret(ur): (s)ed p(er) anticipation(em) ut frequent(ur) diximu(s) illo uocat(ur) nomine q(uo) po(s)tea nuncupand(us) e(s)t;* Hayward, trans., "Hebrew Questions," 69.

[245] Folio 55r: *E(s)t aut(em) ad tergu(m) phenici(s) (est) arabie collibu(s) libani copulatu(s) extendit(ur)q(ue) p(er) de(s)ertu(m) u(s)q(ue) ad eu(m) locu(m) ubi tran(s) iordanen habitauit q(uo)nda(m) (s)eon rex amorreo(rum)*; Freeman-Grenville, trans., "Onomasticon," 39; Notley and Safrai, trans., *Onomasticon*, 61.

The map of Asia is less discussed in scholarship in terms of its relationship with the texts, because it was likely drawn from a larger world map.[246] The maker's choice to separate out this region from the rest of the world to render it on a singular manuscript page to connect with the works in the Tournai Map Manuscript warrants discussion. This exploration is especially important because the Asia map shows a strong quantitative relationship with the *IHN* in particular, as well as the *BHP* and *HQG* (**see Table 1)**. Both the *IHN* and the *HQG* in fact mention the continent of Asia several times throughout, pointing to the utility of this map alongside its textual companions.[247] For example, in the *HQG*, Jerome's entry for Genesis 10:2 is dense with place names that appear on the map of Asia. One such phrase indicates three places that appear on the map of Asia (Amanus mountain, Coele-Syria and the mountains of Cilia), "To Japeth the son of Noah were born seven sons who occupied the land in Asia from Amanus and Taurus of Coele-Syria and the mountains of Cilicia as far as the river Don."[248] Jerome's note includes several more that appear on the Asia map such as the Ionian Sea and the Goths Getae, who appear on the map as "Gothi, who [are] Getae."[249]

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[246] See Dalché, "Eucher de Lyon, Iona, Bobbio: le destin d'une *mappa mundi* de l'antiquité tardive."

[247] Lagarde, trans. and ed. *S. Hieronymi Presbyteri Opera,*150–51, 154, 158–59.

[248] Folio 5v: *de iaphet filio noe nati (s)(un)t (s)epte(m) filii q(ui) po(s)(s)eder(un)t terra(m) in a(s)ia ab amano (et) tauro (s)(y)rie celi(s) (et) ciliti(a)e montib(us) u(s)q(ue) ad fluuiu(m) thanaim;* Hayward, trans., "Hebrew Questions," 39.

[249] Hayward, trans., "Hebrew Questions," 39; The inscription here is partially obscured by modern conservation paper, the editors at *Virtual Mappa 2.0* have suggested, "*Gothi, qui [est?] Gete*" for this inscription. See Brott, et al. eds., "Tournai Map of Asia," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82.

The relationship between the current versions of the maps and Jerome series inspires a dynamic interchange. When looking at the erasures on each map, many still visible to the naked eye, we can begin to uncover a level of intentionality behind their inclusion. Each place name erasure beneath the map of Asia relates to the Jerome works, strengthening the argument that the maps were made to complement the works in the series.

The erased / added place names and the Jerome series

The first draft of the map of Palestine, now beneath the map of Asia, was drawn at a smaller scale, and was more focused on the area directly around Jerusalem. All of the place names that Paul Harvey was able to uncover on the first draft of Palestine are found at least on one occasion in the manuscript, as **Table 2** shows. For the present version of the Palestine map, now on the verso, the map maker widened the extent to include a larger range of place names and regions mentioned throughout the Jerome series, such as Egypt and Ethiopia, as well as to utilize outside source material. The map maker additionally incorporated places important to crusader audiences, such as the inscription indicating the "desert in which Jesus fasted," which also appears as an erasure beneath the map of Asia.[250]

Of particular importance is the inclusion of *Betsura* on the current map of Palestine, as well as the draft beneath the map of Asia. *Betsura* is distinct, because it is a place name that is unique

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[250] Milka Levy-Rubin, "From Eusebius to the Crusader Maps: The Origin of the Holy Land Maps," in *Visual Constructs of Jerusalem*, eds. Bianca Kühnel, Galit Noga-Banai, and Hanna Vorholt, 253–92 (Belgium: Brepols, 2014), 263; also see Harvey's reconstruction in Harvey, *Medieval Maps*, 42-43.

from other pre-thirteenth century world maps, as Harvey has explained.[251] *Betsura* is however mentioned in both the *BHP* and the *IHN*, spelt *Bethsur*. The modern location of *Bethsur/Betsura/Bethsoura* accords with the map of Palestine.[252] The inclusion of *Betsura* in both iterations of the Palestine map suggests that the Tournai maps were made specifically to complement the contents of the manuscript. In the *BHP* Jerome writes: "Today it is Bethsoro, a village on the way from Aelia to Chebron at the twentieth milestone, near which a spring bubbles out from the foothills of the mountains, in which it rises and is absorbed by the earth." To this Jerome added to Eusebius' original entry, that "*The Acts of the Apostles* mention that the eunuch of Queen Candace was baptized in it by Philip. There is another village of Bethsur in the tribe of Judah a thousand paces away from Eleutheropolis."[253] Looking at *Eleutheropolis* on the Palestine map, one could imagine that *Bethsur* is 1,000 paces east (**see Figure 4**).

Jerome's Christian additions to the *BHP*, specifically those pertaining to the *Acts of the Apostles*, were echoed by later scribes. Paul Harvey traced the hands between the thirteenth and fifteenth

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[251] Harvey, *Medieval Maps,* 52.

[252] "Beth Zur/Bethsoura," Pleiades: A Gazetteer of Past Places*,* Last modified January 30, 2019, https://pleiades.stoa.org/places/687859.

[253] Folio 50r: *(et) e(s)t hodie beth(s)oro uicu(s) euntib(us) nob(is) ab helia chebron in uice(s)imo lapide iuxta que(m) fon(s) ad radice(s) monti(s) ebullien(s) ab eadem in qua gignit(ur) (s)orbetur humo. (Et) ap(osto)lor(um) acta referent eunuchu(m) candaci(s) regin(a)e in hoc e(ss)e a philippo baptizatu(m). E(s)t (et) alia uilla bethsur in tribu iuda mille pa(s)(s)ib(us) di(s)tan(s) ab eleutheropoli*; Freeman-Grenville, trans., "Onomasticon," 35; Notley and Safrai, trans., *Onomasticon*, 50.

centuries.[254] Each place name added by a later scribe accord with the Pauline travels.[255] On the map of Asia these places are *Troade*, *neapolis* and *beroea* and places *cencris* and *pataram*, and on the map of Palestine, *bethel* and *lebona* and *silo* **(**see **Figure 26**). The New Testament additions also mirror Jerome's Christianization of Eusebius' original Greek text, perhaps because Eusebius' original text was sparce in New Testament places, despite the fact that in his preface he wrote that he "…set out to write from the whole of divinely-inspired Scripture," signaling that the work refers to both Old and New Testaments.[256]

The many edits and erasures, later made in the twelfth century, give the folio a similar characteristic to a wax tablet—a medium associated with temporary writing or note taking.[257] The Tournai map maker could have perhaps envisioned himself akin to Adomnán of Iona, who drew a map on such a tablet as he described his pilgrimage to the Holy Land. The Tournai map maker critically engaged with this work, evidenced by his drawings and notes in another manuscript from Saint-Martin, as I explore in the next section.[258]

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[254] Harvey, *Medieval Maps*, 59.

[255] Martin Foys discovered the relationship between the added place names and the apostolic mission, see Brott, et al. eds., "Tournai Map of Asia," https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82).

[256] Hayward, trans., "Hebrew Questions," 28; Freeman-Grenville, trans., "Onomasticon," 5.

[257] Clemens and Graham, *Introduction to Manuscript Studies*, 4.

[258] Thomas O'Loughlin, "Adomnán's Plans in the Context of His Imagining 'the Most Famous City'," in *Imagining Jerusalem in the Medieval West*, 15–40 (Oxford: Oxford University Press, 2012), 22.

The method of the maker

We can better understand the varying degrees of correlation between the Tournai maps and Jerome series by looking at the diagram that the map maker drew in another manuscript from Saint-Martin, BL Add. MS 15219, which contains Bede's rendition of Adomnán's of Iona's *De Locis Sanctus* (henceforth *DLS*, **see Figure 14**). The *DLS*, completed by 688 (with Bede's version following closely after), served as an important midpoint between Jerome and the crusader period in terms of geographical knowledge.[259] It is both a travelogue and exegetical manual, among one of the earliest known Latin medieval texts to have contained plans of buildings.[260]

The diagram that the Tournai map maker drew in Add. MS 15219 is a plan of Church of the Dormition, one of the four images that often accompany copies of the full *DLS*, but are not included in this particular manuscript – the abbey of Saint-Martin's volume contains Bede's shortened version. It is certainly a plan of the Church of the Dormition, because the inscriptions closely match a version currently at the Bibliothèque Nationale de France (**see Figure 15**).[261] Those marking the place of the Last Supper for instance are both located in the northwest corner of the structure, and at the opposite end, is the place where Mary passed. In the center is the

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[259] O'Loughlin, "The De Locis Sanctus as a Liturgical Text," 181.

[260] Thomas O'Loughlin, *Adomnán and the Holy Places: The Perceptions of an Insular Monk on the Locations of the Biblical Drama* (T & T Clark, 2008), 6, 168.

[261] Paris, Bibl. nat. fonds lat. 13048, fol. 11r.

column where Jesus was flogged. The square to the left of the structure represents the stone of Jesus' beating. [262]

At first glance, the drawing may appear simple, but Thomas O'Loughlin has shown, the plans in the *DLS* function in a myriad of ways alongside the text, laying the groundwork for what he terms as "topographical exegesis."[263] In the case of the Church of the Dormition on Mount Zion, the inscriptions reveal multiple moments in time and amalgamate events and locations such as the Holy Spirit's Descent at Pentecost and the Last Supper.[264] While the sources are largely unknown, we do know that the plan was inspired by the works of Jerome, including the *BHP*.

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[262] In BL Add MS. 15219 it appears: *H(a)ec q(ui)d(em) om(n)ia q(uae) co(m)memorauim(us) s(an)cta loca extra monte(m) syon po(s)ita cernunt(ur), quo (s)e ad aq(ui)lone(m) deficien(s) loci tumor porrexit. In inferiore u(ero) parte urbi(s) ubi te(m)pl(um) in uicinia muri ab oriente locatu(m) ip(s)iq(ue) urbi tran(s)itu p(er)uio ponte mediante fuerat coniunctu(m), n(un)c ibi (s)arraceni quadrata(m) domu(m) (s)ubrecti(s) tabuli(s) (et) magni(s) trabib(us) (s)up(er) q(u)a(s)da(m) ruinaru(m) reliquia(s) uili opere con(s)truente(s) orationi frequentant, qu(a)e tria milia hominu(m) capere uidet(ur). Pauc(a)e illic ci(s)ternae in u(s)um aquaru(m) ostendunt(ur). In uicinia te(m)pli beth(s)aida pi(s)cina gemino in(s)ignis lacu apparet, quo(rum) alter hib(er)ni(s) pleru(m)q(ue) implet(ur) imbrib(us), alt(er) rubri(s) e(st) di(s)color aq(ui)s; ab ea fronte monti(s) (s)yon q(uae) p(rae)rupta rupe orientale(m) plaga(m) (s)pectat. Int(ra) muro(s) atq(ue) in radicib(us) colli(s) fons syloe p(ro)ru(m)pit; q(ui) alt(er)nante q(ui)de(m) aquaru(m) ace(s)(s)u in meridie(m) fluit, id e(st) n(on) iugib(us) aq(ui)s[,] (s)ed incerti(s) hori(s) dieb(us) q(ue) ebullit (et) p(er) t(er)raru(m) con caua (et) antra (s)axi duri(s)(s)imi cu(m) magno (s)onitu uenire con(s)ueuit. In sup(re)ma (m)ontis (s)yon planctie monacho(rum) cellul(a)e freq(ue)nte(s) eccl(esi)am magna(m) circu(m)dant illic, ut p(er)hibent, ab ap(osto)l(is) fundata(m), eo q(uo)d ibi (s)p(iritu)m (s)(an)c(tu)m acceperint ibi q(ue) (s)(an)c(t)a maria obierit. In qua etia(m) loc(us) c(a)en(a)e d(omi)ni uenerabili(s) o(s)tendit(ur)[.] Sed (et) colu(m)na marmorea in medio (s)tat eccl(esi)(a)e, cui adheren(s) d(omi)n(u)(s) flagellat(us) e(st). Hui(us) (er)g(o) eccle(s)i(a)e tali(s) dicitur e(s)(s)e figura*.

[263] O'Loughlin, "Adomnán's Plans in the Context of His Imagining 'the Most Famous City,'" 18.

[264] O'Loughlin, "Adomnán's Plans in the Context of His Imagining 'the Most Famous City,'" 32-37.

Thomas O'Loughlin has also surmised that Adomnán had access to Jerome's letter to Pope Damasus (Epistle 108) in which he describes his pilgrimage with Paula and Eustochium.[265] We do know that Adomnán was inspired by Jerome's *BHP*, because like the *BHP*, while the *DLS* is not an encyclopedia, it is also not a pilgrimage itinerary.[266] Adomnán also possibly borrowed from Jerome by using the figure of a traveler – in Jerome's case his companions were Paula and Eustochium – through which to relay information on sacred sites.[267]

The Tournai maps and the *DLS* diagrams both inspire dynamic interchange between the information given in the body of their associated works, as well as to outside sources. Given the map maker's engagement with a variety of models, including diagrams, it is clear that he was not only cultivating his interests in Holy Land topography, but he was also aware of traditions in visually representing special locations within that geography. Again, while there is no building plan of the Herodian Temple in the Tournai manuscript, as the *BHP* preface alludes to, the map maker was certainly aware of traditions of representing historical spaces in and around

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[265] O'Loughlin, *Adomnán and the Holy Places*, 25, 147. We can imagine that Tournai abbey had access to this letter if the catalog only lists the first books bound in the manuscripts listed. There were also ten lines open for Jerome, indicating that they planned to copy more translations of his work.

[266] O'Loughlin, "Adomnán's Plans in the Context of His Imagining 'the Most Famous City,'" 18.

[267] O'Loughlin, *Adomnán and the Holy Places*, 25.

Jerusalem, using illustration to both complement and complicate the content of the text as didactic aids to support monastic study and contemplation.[268]

The map of Cappadocia

The map within Isidore's tract on Cappadocia on the loose-leaf (now currently in a private collection, **Figure 16**), as stated in Chapter One, represents a middle ground between the *DLS* plan and the iteration of the Anatolia on the map of Asia. The map appears just beneath a block of text (the italicized portion indicates the portion of the leaf that survives because it was later cut into sections):

> Asia Minor is girt by Cappadocia in the east and surrounded by the sea in all other directions, for it has the Black Sea in the north, the Propontis (i.e. the Sea of Marmora) in the west, and the sea of Egypt in the south. Its provinces are Bithynia, Phrygia, Galatia, Lydia, Caria, Pamphylia, Isauria, Lycia, and Cilicia. The first of these provinces of Asia Minor, Bithynia, stretches eastward from where the Black Sea begins, *opposite Thracia, and it was previously called many different names, first Bebrycia, then Mygdonia, then Bithynia, after king Bithynus. It is also known as Phrygia Major. The city Nicomedia lies in it, where Hannibal took refuge and died from a drink of poison. Galatia takes its name from ancient tribes of the Galli, by whom it was occupied, for the Galli, called upon by the king of Bithynia to assist him, divided the kingdom when victory was achieved. Thus, after they had intermarried with the Greeks, they were first called Gallograeci and are now called Galatians, after the name of the ancient Galli, and their territory is called Galatia.*[269]

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[268] For more on maps as didactic study tools, see Hanna Vorholt, "Studying With Maps: Jerusalem and the Holy Land in Two Thirteenth-Century Manuscripts," in *Imagining Jerusalem in the Medieval West*, edited by Lucy Donkin, and Hanna Vorholt, (Oxford: Oxford University Press, 2012).

[269] Lewis et. al, trans., *The Etymologies*, 288.

There are no other surviving medieval drawings of this specific region that scholars are aware of currently. The Cappadocia map is thus unique to the Tournai map maker. His drawing follows Isidore closely. This is most obvious when comparing this region with his map of Asia, which does not follow the arrangement and design of the Cappadocia draft, despite their formal relationship (described in Chapter One). Notably, unlike the map of Asia, his Cappadocia draft omits Migdonia within Anatolia because it is synonymous with Bitinia, as the above passage states. The map of Asia includes Migdonia in the southwest portion of Anatolia (**see Figure 3**). The location of Mount Taurus at the join between the vertical line dividing Cilicia and Isauria, and the horizontal line marking the easternmost extent of Cappadocia, is in accordance with Isidore's passage on Armenia. He writes "Taurus mountains, under which Cilicia and Isauria stretch out to the Gulf of Cilicia."[270]

The Tournai maps also reflect Isidore's description of Mount Taurus. He mentions the feature twice – first within his description of Armenia that directly precedes his tract on Cappadocia, where it is mentioned on the second occasion. The Armenia section was cut from the loose-leaf we see today (**see Figure 16**). In his description, Isidore locates Armenia "…between the Taurus and the Caucasus ranges, reaching from Cappadocia to the Caspian Sea."[271] The map of Asia joins the two ranges east of the Caspian Sea (see **Figures 1 and 3**). This could have been an error of the fifth-century model he also referred to, or perhaps a misreading of Isidore's tract. On the map of Palestine, Mount Taurus follows the location pictured on the Cappadocia draft, though

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[270] This portion does not appear on the loose-leaf, because it was cut off. For translation, see Lewis et. al, trans., *The Etymologies*, 288.

[271] Ibid.

the region was later erased (**see Figures 4 and 12**).[272] The size of the Tournai map folio, and the ability to have a pair of maps representing a similar geographical area, provided the map maker a wider expanse on which to render the both locations of the mountain described by Isidore.

The Tournai maps also follow Jerome. He mentions the Taurus mountains in his commentary for Genesis 10:4-5 in the *HQG* as a feature in unison with the Amanus, which are coastal mountains.[273] The Amanus mountain (on the map of Asia) and Taurus mountain (on the map of Palestine) are placed in the same location in relation to the shape that represents the Mediterranean Sea (**see Figures 2 and 4**). Given that the maps are recto-verso on the folio, the inscriptions literally mirror Jerome's passage in Genesis that links the two features.

The draft map of Cappadocia was part of the Tournai maker's research in developing his knowledge on the region of Anatolia. Like the Cappadocia map, the Tournai maps referenced geographical descriptions directly, but similar to the *DLS* diagrams, the Tournai maps were also designed to bring the user beyond their associated texts and as I continue to show, into exegetical contemplation.

Conclusion: Map and Text

The discrepancies and mismatched spellings between the maps and the Jerome texts added to the playful process by which the monk engaged with the manuscript. The variations only deepened

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[272] Lewis et. al, trans., *The Etymologies*, 288; also see Kupfer, "Travelling the *Mappa Mundi*," 22.

[273] Fol. 5v, Hayward, *Saint Jerome's Hebrew Questions on Genesis*, 40.

his knowledge of the translation of information and how graphics can manifest such change. Because the Tournai Maps are not just palimpsests in a material sense, but they are palimpsests in an orthographical sense as well: Eusebius translated Hebrew into Greek, Jerome translated Eusebius' Greek text into Latin and finally, the medieval copyist translated the work of Jerome into a twelfth-century version of the world, pictured visually in the maps, and textually within in the manuscript. Travel to the Holy Land is not only a task accomplished by studying the information within the codex; instead, I argue the journey is achieved by making, and using the maps as *tools* in their physical setting and transform written geography into a visual field defined by space and time, text and image.

CHAPTER FOUR: MAP AND MANUSCRIPT

Introduction

The TMM was used as a heuristic research tool to explore the geography of the Holy Land and its wider parts. The previous chapter showed the ways in which the Jerome series guided study of sacred places and names, and how the maps added to the research process. This chapter correlates the maps and the works in the TMM with monastic methods of reading and retaining information, specifically Hugh of Saint Victor's idea of gridded thinking in the *ars memoriae* (the art of memory), discussed in Chapter Two. To memorize verses that are sung throughout the daily liturgy, Hugh of Saint Victor encouraged the monk to imagine each prayer housed within a cell or *locus* (place) in his mind.[274] When monks consult texts such as the TMM, the information is stored in a mental compartment that contains the specific verse, strengthening their relationship with the content they recite throughout the day.

Maps and diagrams have a special place within Hugh's exploration of memorization techniques. His *Mystic Ark* guides the reader through the composition of an enormous image that contains hundreds of figures and inscriptions. His work pictures exegetical practice as a diagrammatic dialogue between, as Carruthers states, "the process of Scriptural reading, moral development, and memory training."[275] Crucial for the comprehension of Hugh's Ark is traveling along the

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[274] Carruthers, trans., "The Three Best Memory-Aids for Learning History," 340-3.

[275] Conrad Rudolph, *'First, I Find the Center Point,'* argues was materialized into a diagram, while Mary Carruthers argues that the *Mystic Ark* is a meditative instrument, see Carruthers, *The Book of Memory*, 53, 294.

unus ductus, or "one continuous line."[276] The term *ductus* was first used to describe the "flow" of a composition by Chirius Consultus Fortunatianus in the fourth or fifth centuries AD.[277] Other rhetoricians state that the *ductus* is the path or *skopos*, Greek for "target," or as Augustine defines it, "attention," aided by *modus* or *colores* (the ornaments of rhetoric, or "figures and tropes of style").[278] The *skopos* is the primary message or messages of a composition and the *ductus* the term for registering that process.

This chapter investigates the process by which the monk engages the TMM, arguing that the visual way in which the information is presented (in both the body of the manuscript and on the maps), encourages a dynamic readership structured by the *ductus* or line. I suggest that there are multiple pathways to the Holy City and throughout the Holy Land that are traversed mentally by following the linework on the maps as well as by making connections between the texts in the manuscript.[279] I consider this usership as "performative cartography," which describes map-

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[276] Hugh of Saint Victor, *The Mystic Ark*, trans., Conrad Rudolph in *The Mystic Ark: Hugh of Saint Victor, Art, and Thought in the Twelfth Century*, (New York: Cambridge University Press, 2014), 446; see footnote 238 for his discussion on the translation of *unus ductus*.

[277] Carruthers, *The Craft of Thought*, 77; Terkla, "Introduction," 7-8.

[278] As Carruthers explains, *modus* is the term found in works by Fortunatianus, while Martianus Capella used the term *colores*. See Carruthers, *The Craft of Thought*, 79; Carruthers, "The Concept of Ductus," 196-199; William Chase Greene, trans., *City of God, Volume VI: Books 18.36-20*, Loeb Classical Library 416, (Cambridge, MA: Harvard University Press, 1960), 203.

[279] Kathryn M. Rudy, *Virtual Pilgrimages in the Convent: Imagining Jerusalem in the Late Middle Ages*, (Turnhout: Brepols, 2011), 20–22; Kathryn M. Rudy, "A Guide to Mental Pilgrimage: Paris, Bibliotheque De L'arsenal Ms. 212," *Zeitschrift für Kunstgeschichte* 6363 (2000): 494–515, 501. This chapter adapts discussion on the image program in a fourteenth-century manuscript, stating that an image of the facade of the Church of the Holy Sepulcher in Jerusalem (fol. 2), followed by the interior on the following page, is "as if turning the page were like opening a door then passing through it."

making as an activity registered both internally and externally; in other words, performative cartography is the phenomenon of dynamic reading, whether that is reading a single page of text, or a map image.[280]

To explore performative cartography as present in the TMM, I first discuss the role of *ars memoriae* in constructing a dynamic readership, connecting Hugh of Saint Victor's concept of a mnemonic grid with the ways in which information is ordered in the TMM. I then define "performative cartography" more broadly because it is a phenomenon that is not just registered via maps in manuscripts; the daily lives of monks were imbued with traversing specific pathways in their abbey complex. I then place "performative cartography" within the context of the TMM and the itinerary map of Matthew Paris (**see Figure 18**), which was designed to carry the reader to Jerusalem on a virtual pilgrimage. The subsequent sections explore the various pathways that guide the TMM user through the body of knowledge presented in the codex – both pictured or invented as a mode of connection between places listed in the maps, the text, and the liturgy.

Ars memoriae in the TMM

In his *Three Best Memory-Aids for Learning History,* Hugh of Saint Victor explicitly describes how a monk should organize the psalm prayers within his mind in order to recite them throughout the day from memory.[281] At the foundation of Hugh's model is a "numerical line" upon which each prayer is assigned "to the seats where they are disposed in the grid, while at the same time, accompanied by voicing or cogitation, I listen and observe closely until each [cell]

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[280] Edney, *Cartography,* 7, 12.

[281] Carruthers, trans., "The Three Best Memory-Aids for Learning History," 340.

becomes to me the size equivalent to one glance of my memory…".[282] The numerical grid system prompted the monk to invent a system of coordination between liturgical time, and the ways in which scripture is ordered in manuscripts: as a Benedictine abbey, the liturgy at Saint-Martins followed the rule of Saint Benedict, which begins with Psalm 118, while psalter manuscripts arrange the verses in numerical order, beginning with Psalm 1.[283]

While the Jerome series were not recited aloud like the Psalms, and thus do not evoke an aural quality, they relate to Hugh's technique of encapsulating the brief prayers within a mental, cellular structure by way of citation.[284] In his discussions, he referenced the *BHP* and the *IHN* for their success in *brevitas* or, things discussed in brief, a rhetorical technique that aids in memorization.[285] Considering the monastic user of the TMM, it can be imagined that in his recitations of the Psalms throughout the day, he would have evoked information listed in the Jerome works and pictured on the maps to complement his knowledge on the geographic information recited in prayers.[286]

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[282] Carruthers, trans., "The Three Best Memory-Aids for Learning History," 340.

[283] Carruthers, *Book of Memory*, 101-103.

[284] There are, however, various folios within the TMM that have music notes drawn at the bottom of the page.

[285] Carruthers, *Book of Memory*, 98; also see her discussion on the *BHP*, 144–46; Jerome Taylor, trans., *The "Didascalicon" of Hugh of St. Victor: A Medieval Guide to the Arts* (New York and London: Columbia University Press, 1961), 104–5.

[286] Carruthers, *Book of Memory*, 98; also see her discussion on the *BHP*, 144-6; Jerome Taylor, trans., *The "Didascalicon" of Hugh of St. Victor: A Medieval Guide to the Arts*, (New York and London: Columbia University Press, 1961), 104-5. Also see my article which explores the

This chapter brings a literal interpretation of Hugh's mnemonic onto the works in the TMM and considers the ruled lines that structure the placement of text (discussed in Chapter Two), as well as the linework on the maps as visual manifestations of Hugh's grid. Taking this idea into account, if we consider the works in the TMM as a materialization of the grid, then the cells in the *IHN* and the *BHP* consist of a place name (adorned with a larger letter) and its entire description. The cells of the *HQG* would be distinguished between the verses in *Genesis*, which are marked with an "S" in the margins and Jerome's commentary that follows. The grid system within the Tournai maps is curvilinear and is defined by penned-in lines that designate the shapes of land and waterways. If a monk finds a place name of interest on one or both maps, its geographical situation as well as orthographical rendering will be a feature within a particular cell in their mental grid system. The information from the map then becomes visualized in a new system of *loci* with parameters defined by how its location complements their knowledge of scriptural texts.

To build information within the cells, Hugh describes the importance of noticing the ways in which information is ordered on a manuscript page for memory retention:

> Therefore it is a great value for fixing a memory-image that when we read books, we strive to impress on our memory through the power of forming our mental images not only the number and order of verses or ideas, but at the same time the color, shape, position, and placement of the letters, where we have seen this or that written, in what part, *in what location [locus] (at the top, the middle, or the bottom) we saw it positioned, in what color we observed the trace of the letter or the ornamented surface of the parchment*.[287] [emphasis added]

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relationship between the Psalter World and List Maps and the book of Psalms, "The Geography of Devotion in the British Library Map Psalter."

[287] Carruthers, trans., "The Three Best Memory-Aids for Learning History," 342.

Hugh's concept of locational memory is structured by visual hierarchy, a design theory that places formal elements such as size, shape and color on a scale that registers the elements that dominate a composition, and therefore structure how the reader-viewer registers information on a page.[288] For the maps in the TMM specifically, we can consider the *modus and colores*, described by Augustine, as elements and principles of design such as color, line-weight (whether the lines are thick or thin) as well as the size and rendering of script.

As described in Chapter Two, when flipping through the TMM, the user is struck by the large, pen-flourished initials that begin each Jerome work.[289] For example, on the incipit folio for the *BHP*, several visual components draw the eye to specific parts of the page: the "A" for Ararat, one of two larger decorated initials, the only one on this folio with a figural element; the second largest letter is the "E" beginning Eusebius (**see Figure 13**). The subsequent pages of the *BHP* use *littera notabiliores* (notable letters), to distinguish the start of each place name, ordered alphabetically. These *littera notabiliores* are important navigational aids for the reader and engendered a specific research methodology tracing back to Jerome, who in a letter to Pope Damasus from around 384 A.D. described how he utilized color to distinguish information.[290]

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[288] A. Tait, *Visual Hierarchy and Layout: The Geographic Information Science & Technology Body of Knowledge*, (2nd Quarter 2018 Edition), ed. John P. Wilson. Published online: May 15, 2018. DOI: 10.22224/gistbok/2018.2.4.

[289] Carruthers, *Book of Memory*, 281; Clemens and Graham, *Introduction to Manuscript Studies*, 186.

[290] Clemens and Graham, *Introduction to Manuscript Studies*, 186.

Hugh's passage above is relevant for the maps as well since they are primarily made up of text. The maps' visual hierarchical schemes are more complicated than the gridded landscapes of the *HQG*, *IHN*, and the *BHP* however, particularly because they lack balanced proportions of color. We can observe this as distinct, thinking back to Hugh's *Descriptio*, which relates the "variety of colors as a function of the diversity of reality: the Mediterranean Sea, the Red Sea, rivers and mountains have each been given their own colors, making it easier to distinguish one from another."[291] The Tournai maps divert from Hugh's teachings here. Both maps are all-over compositions, which means that the dominating design elements are balanced throughout the entire folio. The dominating elements comprise both the inscriptions and the network of lines that create shapes distinguishing between water and land. The compositions present a challenge for a user searching for a specific place on either or both maps. When found, the most important information received, as Hugh suggests, is whether it is located "at the top, middle, or bottom of the parchment," followed by noticing what shape the inscription is bound within, how the place name is rendered or spelt, and other information such as its proximity to other specified locales, or perhaps the direction in which the inscription is oriented. To help the user who approaches the information from the point of the maps, I argue that the system of linework encourages them to dynamically engage the codex in a process called "performative cartography," which is linked with Hugh of Saint Victors *ars memoriae*.

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[291] Bouloux, "The Munich Map," 102-3.

Performative cartography

Hugh's passage in the previous section describes how to apply locational memory as a tool when reading and memorizing information from a manuscript page. I then applied his tool to the arrangement of information in the TMM. Hugh's *Three Best Memory Aids* continues to discuss the importance of a memory occasion:

> Indeed I consider nothing so useful for stimulating the memory as this; that we also pay attention carefully to those circumstances of things which can occur accidentally and externally, so that for example, *together with the appearance and quality or location of the places in which we heard one thing or the other* we recall also the face and habits of the people from whom we learned this and that, and if there are any, *the things that accompany the performance of a certain activity*.[292]

Mary Carruthers connects Hugh's concept of locational memory, i.e. "…the appearance and quality or location of the places…," with the Plan of Saint Gall (9th century, Codex Sangallensis 1092, **Figure 6**), a drawing of an ideal monastery, the space in which cloistered monks applied the tactic of locational memory.[293] Thin parallel lines between structures suggest pathways for the monastic to mentally navigate the abbey and envision activities within each space. This is one example of "performative cartography" on a two-dimensional level – the activity of looking

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[292] Carruthers, trans., "The Three Best Memory-Aids for Learning History," 342.

[293] Carruthers, *The Craft of Thought*, 228-231; The connection between architecture and Hugh's concepts of memory is especially potent because he advised Abbot Suger on his additions and redesigns of Saint Denis, which is seen as among the first proto-gothic medieval churches, see Rudolph, *'First, I Find the Center Point*," 3.

through and navigating spaces through particular pathways, here structured by linework (which I explore later in this chapter).

The pathways and spaces on the Plan also refer to a three-dimensional type of "performative cartography," because the monks' daily lives were infused with giving metaphorical significance to activities performed within each space drawn on the Plan. The cloister, the square rendered prominently near the center, was designed to be circumambulated in liturgical processions. The semicircular linework around the edges of the cloister on the Plan signal sculptural decorations that adorn actual, surviving cloister spaces. For example, some narrative motifs on remaining twelfth-century pier reliefs *in situ* at the corners of the cloister of Santo Domingo de Silos depict scenes from the Life of Christ, his resurrection and descent, as well as the apostolic mission. These themes relate to chants the monks recited throughout the day, with many of the prayers focused on the retention of Jerusalem and spread of the faith to the world. Elizabeth del Álamo explains that the cloister capitals at Silos were "designed to make the sacred present for those who passed through."[294] In other words, the scenes depicted on capitals called forth scriptural events and locales into the present. Like the liturgy, which set the devout in the presence of the Holy Spirit within the church space, sculpted capitals situate the cloister as "a symbolic Jerusalem at the heart of the monastic compound."[295]

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[294] Elizabeth Valdez del Alamo, *Palace of the Mind: The Cloister of Silos and Spanish Sculpture of the Twelfth Century* (Turnhout: Brepols, 2012), 134.

[295] del Alamo, *Palace of the Mind*, 136.

In both the cloister and the TMM, travel to Jerusalem was both mental and physical. With the TMM, the "performed activity," as Hugh states in the last passage, was reading and flipping through the manuscript to cross-reference the information, as Jerome originally intended. The TMM, like the sculpted capitals in the cloister at Silos that "transform the entire cloister into a sacred Jerusalem," also evokes the presence of Jerusalem through its visual emphasis on the map of Palestine, as well as its presence within the sacred geography described in the Jerome series.[296] As described in Chapter Three, the journey throughout the Holy Land was not a direct course due to the varying degrees of relation between the maps and the text. This accords with the experience of the monk in the cloister at Silos, because the narrative scenes on the cloisters are not arranged in chronological sequence. The monk at Silos then was required to piece together information regarding the timeline of scriptural events.[297]

Viewing and consulting maps had a similar effect on the monk as did traversing cloister spaces filled with imagery of Christ, his followers, and the geography in which sacred events occurred. By witnessing the place names inscribed on the maps, the reader-viewer was brought closer to Holy territory, in a process Daniel Connally terms "translocation," defined "an imaginative repositioning of the viewer or reader to some other place and or time different from that of their encounter with those materials."[298] While translocation is primarily a mental practice, we know that the twelfth-century monk was fluent in transporting their mind and self to other places by

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[296] Ibid; also see Connally on the relationship between the Matthew Paris itinerary and the liturgy, Connolly, *The Maps of Matthew Paris*, 71-5.

[297] del Alamo, *Palace of the Mind,* 47.

[298] Connolly, *The Maps of Matthew Paris*, 30.

way of performance through physically navigating the church space, as well as leafing through the pages of a manuscript. For the TMM, I argue that a similar type of simplified line work like we see on the Plan of Saint Gall encouraged the user to flip around the codex, as I explore further in the next section.

The ductus

The Tournai map maker, Hugh of Saint Victor, Isidore of Seville and Adomnán of Iona all engaged with text and image to convey ideas in a cartographic language. Yet, unlike the Tournai maps, his map of Cappadocia, and Adomnán's *DLS* diagrams, which relate to the content of the work they are associated with, if we follow Rudolph's argument, Hugh's *Ark* was self-sufficient.[299] He argues that there was no textual description that accompanied it. Furthermore, Rudolph states that the *Mystic Ark*, as it exists today, is likely an observational description or formal analysis of a diagram that was present before the student-author. The general structure centers on an image of the Ark of the Covenant surrounded by radiating features that signal earthly and cosmological forces. Similar to the Psalter, Hereford, and Ebstorf Maps (**see Figures 9, 10, 11**), Christ encloses the diagram, flanked by a pair of seraphs. Directly encompassing the Ark of the Covenant is a *mappamundi* encased in a sphere that represents the "cosmic components" of air. For the "cold of the west," they write: "Here ascend those who long to

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[299] While Carruthers argues that the Ark is a meditative instrument, there are a few medieval manuscripts that visualize parts of it in diagrammatic form. See Carruthers, *The Book of Memory*, 53, 448 (footnote 47). Conrad Rudolph recently suggested a model. He argues that the Mystic Ark was written by a student observing the real diagram, probably on display at Saint Victor. Rudolph suggests further that there would have been an image of the Ark at Saint Victor, possibly painted by Hugh himself. See, Rudolph, *'First, I Find the Center Point,'* 9–10.

contemplate the light of inner vision with the purified inner eye, like those returning from Babylon to Jerusalem….Now, this verse has no division. Rather, *one continuous line* (*uno ductus*) of color is extended from below upward since contemplation is uniform and simple."[300]

In this passage, the *ductus* is a visual component that moves the reader through specific parts of an image. As Dan Terkla has stated, *ducti* are the "apparent or unapparent structures that enable and control a viewer's ocular journey across it's surface."[301] There are several *ducti* at work in the TMM, visual, textual, drawn, implied – all of which work together to bring the user to specific places surrounding the Holy Land. Considering the case in which the user is approaching the TMM through the maps as a point of departure, perhaps without a specific place name in mind, I argue that on the map of Asia, the river lines guide the viewer up and east to several points of *skopos*, or the "attention."[302] **Figure 40** illustrates this point by bringing out the rivers and bodies of water in blue. The rivers seem to swirl around the western portion of Anatolia, and into Armenia and Parthia, within the central third of the composition. The black arrow in **Figure 40** emphasizes the Mediterranean coastline, and continues along the Orontes River, which runs diagonally upward from the lower right-hand edge of the map. The place names that run directly along the Mediterranean coastline are placed in close proximity to each other and give the line a bolded effect (see original map of Asia, **Figure 1**), creating a *ductus* that directs attention to Mount Ararat, which sits beneath the Euphrates River, and Nineveh, above

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[300] Rudolph, trans., *Mystic Ark*, 446; also see Terkla, "Hugh," 161-3.

[301] Terkla, "Introduction," 6.

[302] Greene, trans., *City of God*, 203.

the Tigris. Each are adorned with icons that are among the largest in composition. Red pigment sets the eye in the indicated vicinity further, fifteen adorned with paint (not including the Red Sea).

Considering the map of Asia's close relationship with all three of the works in the manuscript, there is significance to be placed in Mount Ararat's presence as a *skopos*. Mount Ararat is the first place-name listed in the *BHP*, and the letter "A" for Ararat is one of five illustrated initials in the codex (among the larger of them) as part of the incipit text. In a kind of reciprocity, the winding and twisting tendrils that give form to the "A" mirrors the undulating quality of the linework rivers on the maps. The lines intentionally take the eye around the letter form itself, eliciting contemplation. Such meditation might prompt a monk to associate the "A" in Ararat with Christ, the Alpha, and the beginning of space and time.

Isidore comments in Book 1 of his *Etymologiae*, "Letters (*littera*) are so called as if the term were *legitera*, because they provide a road (*iter*) for those who are reading (*legere*), or because they are repeated (*iterare*) in reading." [303] In other words, *Littera* are "paths for reading."[304] *Littera* is related *itineraria* (itineraries), which provide a sequence of information that dictates a path forward. Matthew Paris's itinerary map for example provides a literal linear visual journey from London to Jerusalem and provides stopping points between places. As Marcia Kupfer has stated, letters and the formulation of words and sentences act as "reading roads," which

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[303] Lewis et al., trans., *Etymologies*, 39.

[304] Kupfer, "Traveling the *Mappa Mundi*," 22.

"consolidate the linkage between perusing a map and following a path."[305] Thus, I argue that the meditative process in reading the "A" for Ararat mirrors the *ductus* on the maps. Inscribed along the Mediterranean coastline, which continues onto the next page, the place names begin to resemble a sentence written along a ruled line – the string of words acting as a "path for reading."[306] The path from the map of Asia directs the viewer to Jerusalem in Palestine, the final *skopos*. The journey to Jerusalem from Asia to Palestine on the maps is described in greater detail below.

As stated previously, on the map of Asia, one of the dominating formal elements is the bands of rivers that encompass the upper third of the composition. The Red Sea, in the upper right, filled in with red pigment, extends to the very edge of the folio. Working towards the primary *skopos*, beneath the Red Sea, the confluences of rivers along the right edge of the map provide literal arrows toward the south and into the Palestine on the other side of the folio. **Figure 41** overlays the Jor and Dan confluence on the map of Asia over an augmented version of the map of Palestine to represent how the geographies on each map connect in a literal sense.

The toponymic connections between the maps also bring the viewer from Asia to Palestine. **Figure 20** represents the place names and physical features that are repeated on each map. Almost 50 place names align within the overlapping regions pictured on **Figure 41**, many of which are also mentioned in the *BHP* (see **Figure 19**). The repetitions of place names and physical features connect the two maps together in their function as both text and image. When

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[305] Kupfer, "Traveling the *Mappa Mundi*," 23.

[306] Kupfer, "Traveling the *Mappa Mundi*," 22.

the monastic researcher finds himself in the map of Palestine, the visual focus is the Holy City, surrounded by the largest icon near the center.

Line is the most important formal element on the Tournai maps because it carries the eye around and in-between each composition. The Mediterranean coastline guides the user between Asia and Palestine, which aids in comprehending how their geographies relate to one another. The next section shows how the map maker engaged with line or the *ductus* as a didactic aid within the body of the TMM as well as two other manuscripts produced at Saint-Martin.

Navigating marginal notation

In the body of the manuscript*, ducti* exist in various forms. First, as Chapter Three explored, there are implied lines of connection between the Jerome works themselves, because they reference each other throughout. Navigating the content was easy, because two of the works are graphed into encyclopedic format, decorated with *littera notabiliores* to distinguish each place and name listed in the *IHN* and *BHP*. The term encyclopedia is related to the Greek *enkyklios*, translated as "training in a circle."[307] Like the swirling linework creating the "A" for Ararat and the rivers on the maps that carry the viewer around their compositions, the information in the Jerome series evokes a similar navigation: cyclical, linear, or perhaps even contradictory. On the latter point, as shown in Chapter Three, the information between the maps and text sometimes conflicts. For Bethsames, the description is "…Eleutheropolis, ten milestones east of

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[307] De Hamel, *History of Illuminated Manuscripts,* 98; Online Etymology Dictionary, s.v. "Encyclopedia," accessed November 3, 2022, https://www.etymonline.com/word/encyclopedia#etymonline_v_8648.

Nicopolis."[308] On the Palestine map, Bethsames, Eleutheropolis and Nicopolis are in close proximity to each other, southwest of Jerusalem, but Bethsames and Eleutheropolis are north of Nicopolis, and therefore do not match the description in the *BHP*.

As Martin Foys pointed out, "…text is not really the same thing as territory,"[309] because each *mappamundi* reflects its own distinct relationship with geographical sources that contain information difficult to represent visually.[310] For the earlier Cotton map (11th century, BL MS. Tiberius B.V., fol. 56v), Foys finds its visual logic linked with sentence structures in Orosius' *Historiarum adversum Paganos* (*History Against the Pagans*). To Foys, Orosius' mentioning of Mount Taurus four times throughout his description of Armenia and Cappadocia serves to "lexically break continuous terrain into small pieces."[311] In other words, repetition is used as a topographical device within the text, and this strategy is mirrored on the Cotton map – Mount Taurus appears twice. Foys also links Orosius' order of place names in his description of Mesopotamia to their arrangement on the map, which wind above and below the Euphrates River.[312] This "[merge] of text and vision," is also apparent on the Cappadocia map (**Figure**

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[308] Freeman-Grenville, trans., "Onomasticon," 36.

[309] Foys, *Virtually Anglo-Saxon: Old Media, New Media, and Early Medieval Studies in the Late Age of Print*, (Gainesville: University of Florida Press, 2007), 124.

[310] Foys, *Virtually Anglo-Saxon*, 122.

[311] Foys, *Virtually Anglo-Saxon*, 124.

[312] See Martin Foys, Cat Crossley and Heather Wacha, eds., "Cotton Map (British Library MS Cotton Tiberius B v, f. 56v)," in *Virtual Mappa,* eds. Martin Foys, Heather Wacha *et al*. Schoenberg Institute of Manuscript Studies, 2020: https://sims2.digitalmappa.org/36. DOI: 10.21231/ef21-ev82.

16).[313] That Isidore mentions the Taurus mountains directly preceding Cilicia and Isauria, "Taurus mountains, under which Cilicia and Isauria stretch out to the Gulf of Cilicia," perhaps informed their grid-like proximity on the map.[314]

Returning to the idea of *litterae* and sentences as "reading roads," prompts further reciprocity between "text and vision."[315] The place names along the Mediterranean coastline on the Tournai maps for example, resemble a sentence, with bolded *litterae*. Thus, reading places along the coastline is akin to reading text along a ruled line within the body of a manuscript. In the TMM, the map maker brought the *ductus* of the maps into the Jerome series, as well as in BL Add. MS 15219 (which contains the *DLS* and the *Transmarians Sacris*). Chapter One laid the foundation for cartographical thought within the construction of manuscripts. This section reinforces this concept by considering how manuscript pages utilize the *ductus* in its same function as found on maps.

The Tournai map maker used a number of visual cues throughout the body of the Jerome series to suggest lines of interconnection. As stated earlier, if we imagine the ruled page as a manifestation of Hugh of Saint Victor's mnemonic grid, then the cells are filled with information that appears graphed in the encyclopedic entries. The map maker paid close attention to the horizontal ruled lines making the grids in the TMM, and he added more information into their cellular structures. This is evidenced by his notes for Chalanne ("*in genesis*", fol. 52r) and Bale

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[313] Foys, *Virtually Anglo-Saxon*, 129.

[314] Lewis et. al, trans., *The Etymologies*, 288.

[315] Foys, *Virtually Anglo-Saxon*, 129; Kupfer*, Travelling the Mappa Mundi*, 22.

("*in gen(esis) (i.e.) in bale*", fol. 61r) that run along what becomes an invisible ruled line, a mental *ductus*. This helps the reader align his marginal notes with the corresponding information in the body of the text (**see Figures 38 and 39**).

His notes in the margins of BL Add. MS 15219, as well as a group of loose-leaf folios that were once part of a copy of Isidore of Seville's *Etymologiae* interact with the text landscape in a similar manner. In the margins of the *Transmarians sacris* (fols. 3r-11r), the Tournai map maker lists toponyms indicated in the text. He uses a variety of asterisks to distinguish place names that are mentioned in the body of the text that correspond to his notation. His notes help the reader navigate the toponymical content, because unlike the TMM, the place names are not decorated with *littera notabiliores* (**see Figure 42**). The place names are uniformly spaced in the margins, and evoke the Matthew Paris itineraries, made less than a century after the TMM (**Figure 18**).[316] They provide a sort of *itineria* or journey through the described locales in the text, many of which made their way onto the maps in the TMM.

His notes in the *Transmarians sacris* also clarify information absent from the body of the text. He employs a symbol representing *continens*, which means neighboring, holding together, or "in continuous unbroken succession." The *continens* symbol appears on folio 11r where he inscribes "Jesus Christ our Lord" to complete the line in the text that was missing in the main body of the *Transmarians sacris* (**see Figure 42**). This symbol also appears on the Isidore loose-leaf folio by

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[316] The format evokes later glosses "mapped" in the margins of medieval manuscripts, see Lesley Smith, "Biblical Gloss and Commentary: The Scaffolding of Scripture," in *The Visualization of Knowledge in Medieval and Early Modern Europe*, eds. Marcia Kupfer, Adam S. Cohen, and J. H. Chajes, 115–36, (Turnhout, Belgium: Brepols, 2020).

a note that lists additional places in Cappadocia: *[…] Gera flumine est a Galatia disterminata; idem Pontus Galatia Capadocia […]* or "(…) it is separated from Galatia by the Gera river[…]in the same place, Pontus, Galatia, Capadocia (…)" (see **Figure 16**).[317]

The *continens* symbol also appears on Matthew Paris's itinerary map, used to guide the viewer's eye in dynamic ways (see **Figure 43**).[318] One connects the drawing of a boat with inscriptions describing the next steps in the journey "to Acre through Apulia…". These signs move the reader throughout the folio, which is also surrounded by flaps that fold in and out, adding layers of information. With the Paris itinerary, the journey is not only engineered by leafing through the manuscript, but it is also visualized on each individual page.

The *continens* symbols on the Cappadocia draft, the *Transmarians sacris* and the Paris itinerary link text that is located on disparate parts of the page, in "continuous unbroken succession." With both the Paris itinerary and the work of the Tournai map maker, the "continental *ductus*" is simultaneously visual and mnemonic. In the TMM and in the *Transmarians sacris*, the symbol carries the viewer along and beyond the ruled lines, rendering each folio as a map of sorts. In their work as navigation tools, the asterisks help the monk travel around the page, adding additional layers of depth to their research. The next sections further explore how the *ductus* carries the user around the entire codex, which brings their spiritual journey to the Holy Land into the present.

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[317] Translated by Matthew Boutilier, email message to author, January 2024. The rest of inscription is illegible for now.

[318] Connolly, *The Maps of Matthew Paris*, 85.

Imagined pilgrimage

At Saint-Martin, the Benedictine monks lived enclosed within the abbey, and their separation from the outside world served a spiritual purpose. The monks had to travel within their minds, just as Cassiodorus instructed in his "Institutions of Divine and Human Readings," a guide for monastic learning.[319] In the section "Geographers to be Read by Monks" he writes, "…although you are in one place (as monks ought to be) you may traverse mentally what others in their travels have collected with a great deal of effort."[320]

For Daniel Connally, the practice of imaged pilgrimage is encapsulated in the usage and design of the itinerary maps of Matthew Paris. The maps were explicitly designed to encourage the viewer to leaf through the manuscript and engage in a mental pilgrimage to Jerusalem. Matthew's maps were made less than a century after the Tournai maps, and they show us a more explicit model of how medieval maps relate to the concept of imagined pilgrimage.[321] Arranged in a strip-like form, Matthew's itinerary begins in London and concludes in Apulia (**Figure 18**). Pathways representing roads, often illuminated with gold-leaf, are arranged within parallel columns on each folio and encourage the reader to turn the page and continue onward. Place names and architectural drawings punctuate the roadways and signal a literal and physical

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[319] Connolly, *The Maps of Matthew Paris*, 2-3.

[320] James W. and Barbara Halporn, trans., *Cassiodorus Institutiones: Book I*, last updated November 23, 2023, https://faculty.georgetown.edu/jod/inst-trans.html.

[321] Kathryn Rudy has also applied the idea of imagined pilgrimage to a fourteenth-century illuminated manuscript, arguing that the miniatures in Bibliotheque De L'arsenal Ms. 212, work alongside each other autonomously to bring the user to Jerusalem, see Rudy, "A Guide to Mental Pilgrimage," 497, 500, 506.

journey through geographic space, and simultaneously, facilitate a mental pilgrimage for the monastic reader.[322] Matthew also uses text in inventive ways in his itineraries – the kerned "*j o u r n e e*" which is inscribed along the roadways between places, conveys a sense of physical movement on a day's journey, as well as the passage of time.[323] The performative aspect in Matthew's itineraries is not only engendered through the linework that encourages the user to turn the page but it is also enhanced through the addition of flaps that playfully fold in-and-out, revealing place-names such as Rome, or even becoming geographic features, like the island of Sicily (see **Figure 43**).[324]

Page-turning is engineered in a different sense with the Tournai maps but similar to Matthew Paris's maps in that the use of line encourages the reader-viewer to progress through the manuscript space as described in the previous sections. The Tournai maps are not set within framing devices, and lines depicting physical features extend to the very edges of the pages, signaling the boundless space beyond the confines of the folio and into the body of the manuscript. The linework also inspires the user to flip back-and-forth between each map. If one were to follow the Mediterranean coastline on the map of Asia, going south, the eye is prompted to travel from recto to verso. Moving along the coastline onto the verso, one then arrives at Palestine, anchored at Jerusalem, the city near the center, within the largest icon in the composition (see **Figure 19**). The pathway to Jerusalem is also complemented by the cross-

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[322] Connolly, *The Maps of Matthew Paris*, 50.

[323] Connolly, *The Maps of Matthew Paris*, 57.

[324] For more on Matthew Paris' maps, see Suzanne Lewis, *The Art of Matthew Paris in the Chronica Majora* (Berkeley: University of California Press in collaboration with Corpus Christi College, Cambridge, 1987).

textual associations between the maps and places mentioned in the *BHP* in particular, because as **Figure 20** shows, the associations lead the eye to Jerusalem.

Connecting the Mediterranean coast on the maps of Asia (on the recto) and Palestine (on the verso) is not as simple as Paris' itineraries, with linework parallel to the edges of the folio. To connect the coast on the Tournai maps, requires the user turn the page and then shift the orientation of the codex, because the map of Palestine is drawn in a horizontal format. The turn of the codex relates to the volvelles that appear in scientific compendia from the later Middle Ages. Vovelles are separate pieces of circular parchment adhered to a base folio by a pin in the center so they can be rotated.[325] One, perhaps the earliest to survive, adorns the prefatory material of Matthew Paris's *Chronica maiora*.[326] The form settled the "awkward" nature of having to turn the codex, especially true for the map of Palestine because the base of the map runs along the gutter margin. With the TMM, the reorientation adds to the performative aspect by bringing the user even further into the third dimension. As if to be on the last leg of a journey, once the codex is oriented correctly, the user arrives in Jerusalem.

The Tournai maps an additional layer beyond Matthew's itinerary maps because in the TMM, the monastic scholar is not just traveling *to* the Holy Land by way of looking at or engaging with the maps, but instead *through* the Holy Land. This is accomplished by way of scholarly research and diving into the many layers of transmission of knowledge. This process is both performed

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[325] I closely adapted Connally's definition of a volvelle. See Connolly, *Maps of Matthew Paris*, 65.

[326] CCCC, MS 026, fol. 5r.

and imagined and centered on the written word, language and etymology that defines Holy geography in the twelfth century.

Chorography

As mentioned in Chapter Two, Eusebius's Greek version of the *BHP* speaks to the inclusion of a map (possibly of the tribal territories of Joshua): "Then I will prepare a map of the land of Judaea and the different allotments that fell to the tribes, and also a Picture of the Temple of Jerusalem with a brief explanation, he worked finally on this little book in order to brings together for us from Holy Scripture the names of almost all of the cities…"[327]. While preface of the *BHP* in the TMM renders what has been translated "map" as *orthografiam,* (orthography, as explained in Chapter Three), most medieval manuscript copies of the *BHP* render this term as *chorografiam*, chorography.[328] The previous chapter investigated the presence of orthographical analysis in the *BHP*, but here, it is worth investigating further the idea of chorography in its relationship to "performative cartography." The term is derived from the Greek, *khoro-* (a parcel of land) and *-graphia*, (Greek for writing and drawing).[329] Chorographical explanations of land date back to

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[327] Freeman-Grenville trans., "The Onomasticon," 11.

[328] Notley and Safrai, trans., *Onomasticon*, 3; See St. Gallen, Stiftsbibliothek, Cod. Sang. 133, nineth century, p. 2 renders the term *chorografiam*. Interestingly, a manuscript probably from the twelfth century attributed to Saint-Amand, an abbey in the dioceses of Tournai, also uses the term *orthographiam* and includes the *HQG* and the *IHN* in the same order as the TMM, as well as Epistle 108, which describes Jerome and Paula's pilgrimage to Jerusalem (BnF, Lat. 1884, fol. 118).

[329] The definition of *khoro* or *chora* varies. The term also appears on mosaics within a fourteenth-century monastery in Constantinople, dedicated to Theotokos, originally established in the eleventh century. See, Alexi Lidov, "Iconicity as a Spatial Notion: A New Vision of Icons

the first century and appear as both textual descriptions, (i.e., Pomponius Mela's *de Chorographia*), as well as visual, suggested by Ptolemy: "no one can be a skilled chorographer unless he is also skilled at drawing."[330]

To Ptolemy, chorography was an experiential format of geography not related to the specific system of mathematical measurement he prescribed in his works. Chorography is also associated with explanations of localized regions.[331] While the maps in the TMM, are derived from larger world maps (or descriptions thereof), the fact that the map maker chose to render Asia and Palestine as separate maps and to insert them into a manuscript containing the Jerome series, speaks to a chorographical impulse to render specific regions of territory.

The *BHP* has remnants of the tradition as well, which is why the term chorography was used in Latin translations. We can see the presence of chorographical description in the *BHP*'s entry for *Bethsur*:

> Today it is Bethsoro, a village on the way from Aelia to Chebron at the twentieth milestone, near which a spring bubbles out from the foothills of the mountains, in

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in Contemporary Art Theory," in *Hierotopy: The Creation of Sacred Spaces in Byzantium and Medieval Russia*, edited by Alexei Lidov, (Moscow: Indrik, 2006), 6-7, who explains that traditionally *Chora* signifies the suburban location of a monastery, but it is also "a space which unites the concrete nature of the table and its ideal heavenly image-idea." To Lidov, Byzantine icons are *choras* because "…it's concrete (we can kiss, touch it, damage, destroy it / also an ideal image, a heavenly prototype that exists beyond this icon as a sort of abstraction but is part of the iconic whole [Christ]." Also see Kenneth R Olwig, "Choros, Chora and the Question of Landscape," in *Envisioning Landscapes, Making Worlds: Geography and the Humanities*, edited by Stephen Daniels, Dydia DeLyser, and J. Nicholas Entrikin Douglas Richardson, 44–54, (London and New York: Routledge, 2011).

[330] Veronica Della Dora, *Landscape, Nature, and the Sacred in Byzantium* (Cambridge, UK: Cambridge University Press, 2016), 23.

[331] Simon, "Chorography Reconsidered," 24-5.

> which it rises and is absorbed by the earth. *The Acts of the Apostles* mentions that the eunuch of Queen Candace was baptized in it by Philip. *There is another village of Bethsur in the tribe of Judah a thousand paces away from Eleutheropolis*.[332] [emphasis added]

While this description does include measurements ("…at the twentieth milestone…"), the term "paces" in this passage evokes the moving body through a landscape, which links to the practice of chorography.[333] The "paces" of TMM, like Matthew's itinerary, are represented by flipping through the pages, and as stated at the onset of this chapter, each turn a metaphorical footstep.

The Tournai map maker's relationship with the *DLS* (in which he drew a diagram, described in Chapter Two, **see Figure 14**) warrants comparison and discussion in this context. The *DLS* is not a chorographical work but the opening leaves room for the idea. In the preface, Adomnán explains that he rendered Arculf's journey as a drawing (*formulam…depinxit* or "depicted an outline") on a wax tablet or tablets, leaving it to the imagination of the reader as to what this image would look like.[334] Wax tablets are small, portable devises for students.[335] To render the geographical information described, I surmise that the expanse would have been drawn region by region. Conversely, if the "formula" was rendered on a single tablet, it could resemble a smaller version of the Peutinger Table, which has been described as a chorographical map because of its linear presentation of information. Its massive horizontality as well as its possible mounting on a

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[332] Freeman-Grenville trans., "The Onomasticon," 55, on folio 50r in the TMM. The description of the second village in the entry matches the location on the map of Palestine.

[333] Simon, "Chorography Reconsidered," 25.

[334] O'Loughlin, "Adomnán's Plans in the Context of His Imagining 'the Most Famous City,'" 22, also see footnote 40.

[335] O'Loughlin, "Adomnán's Plans in the Context of His Imagining 'the Most Famous City,'" 4.

scroll or a wall requires physical engagement from the viewer. This brings the map into the third dimension, as do chorographic explanations (i.e., the term "paces") – what I have defined as performative cartography.[336]

Arculf's "drawing" on the wax tablet or tablets, is likely a literary device to bring the reader to past and present time: a pilgrim-type character relating past events, and the performance of drawing an image in the present.[337] That Adomnán was inspired to draw "Arculf's" journey was likely recognized by the Tournai map maker, given his engagement with the *DLS* as well as the preface to the *BHP*, which also referred to *pictura*. The maps in the TMM, were then devices to mirror Adomnán's desire to connect himself with Church fathers and use geographical works to bring the user to past, present, and future times via the performance of dictating information in both text and image. The experiential component for the TMM is referencing and using the maps, as (Eusebius intended for the *BHP*) as heuristic research aids. With both the TMM and the *DLS* travel is accomplished within the mind by way of studying the information, as well as following linework on the maps, or on a wax tablet, to explore the Holy Land and its wider parts.

Geo-liturgical memory

Like later manuscript images that guide readers through a topography of Holy places, such as the itinerary of Matthew Paris, TMM prompts the monastic viewer to construct his own pathways to

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[336] Scholars (Simon, "Chorography Reconsidered," 41) argue that the Peutinger Table was displayed on a wall, but it was probably mounted as a scroll; conversation between Charlotte Whatley, the author and Tom Dale, spring 2016.

[337] O'Loughlin, *Adomnán and the Holy Places*, 143-44.

travel through the Holy Land and switch back and forth between locating places on the maps and in the Jerome works. Returning to the definition of the encyclopedia, which is derived from the Greek *enkyklios*, which translates to "training in a circle,"[338] we can imagine that the experience of leafing through the text – between map and image, from the *Interpretation of Hebrew Names* to the *Book of Hebrew Places* – as a type of ambulation comparable to the pathways monks traverse within the church, discussed earlier. The sculpted capitals that punctuate a progression through cloisters function as reference points for scriptural information, rendering the church space, as Mary Carruthers has mused, an encyclopedia of sorts.[339]

In a reciprocal relationship, consulting the actual encyclopedias in the TMM, with information that relates to the Psalm prayers and events sculpted on cloister capitals, transforms the scriptorium into a liturgical space (each were run by the same Officer), because the scriptorium is where the divine word was actualized into being.[340] Evoking Theophilus' "seven-fold spirit" of artists, we can understand making and writing Holy Land works as akin to a liturgical chant or even prayer.[341] As an alternative to the physical space of the cloister or church, the manuscript itself became the territory in which the monk was invited to construct his own pathways of liturgical recitation, but within the mind. Just as the *DLS* breaches into the third dimension by its

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[338] De Hamel, *History of Illuminated Manuscripts,* 98; Online Etymology Dictionary, s.v. "Encyclopedia," accessed November 3, 2022, https://www.etymonline.com/word/encyclopedia#etymonline_v_8648.

[339] Carruthers, *The Craft of Thought*, 18.

[340] See Margot E. Fassler, "The Office of the Cantor in Early Western Monastic Rules and Customaries: A Preliminary Investigation," *Early Music History* Vol. 5 (1985): 29–51.

[341] Hawthorne and Smith, trans., *On Divers Arts*, 78.

association with the "eyewitness" Arculf, when the TMM is engaged, the user is rendered as an eyewitness, pilgrim or even crusader who constructs their own "geo-liturgical" memory.

As stated in the introduction of this dissertation, in the twelfth century, the image of the world became a device to communicate Christological aspirations. This was true for Adomnán – in fact, O'Loughlin argues that the progression of Arculf's journey in the *DLS* followed the logic of a T-O map.[342] The tripartite model of the T-O map is echoed in the works entire literary structure. The *DLS* is separated into three books: the first covers the areas around Jerusalem and second, the surrounding areas of Palestine and journey to Egypt. The last book discusses areas in Constantinople and Sicily.[343] Adomnán's organization is related to the geographical arrangement of the mission in Biblical books. Jerusalem at the center is made clear in *Luke* at the end of the Gospel, "and that penance and remission of sins should be preached in his name, unto all nations, beginning at Jerusalem."[344] The *Acts of the Apostles* is also definitively tripartite, "…you shall be witnesses unto me in Jerusalem, and in all Judea, and Samaria, and even to the uttermost part of the earth."[345]

O'Loughlin connects the tripartite structure of the *DLS* to the design of Irish churches, which are ordered in an arrangement distinguishing between *sanctus, sanctior, sanctissimus* (sacred to the

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[342] O'Loughlin, *Adomnán and the Holy Places*, 152-3.

[343] Ibid., 156.

[344] "Douay-Rheims Bible: Luke 24:47," last modified 2017, https://drbo.org/chapter/49024.htm.

[345] "Douay-Rheims Bible: Acts 1:8," last modified 2017, https://drbo.org/chapter/51001.htm.

most sacred) spaces.[346] In the church, the *sanctissimus* is the altar space, while in the *DLS*, the *sanctissimus* is represented by the column on which Jesus was beat in the Church of the Dormition plan, what Adomnán refers to as the center of the world.[347] That the map maker copied this plan and drew maps focusing on Holy Land territory and its wider expanse, links his work with the Biblical tripartite model. With the TMM, the widest expanse is the information in the Jerome series and more specifically in the *HQG* with the first line of Genesis, "In the beginning, God made the heaven and the earth."[348] The second level is the map of Asia, then the third and most sacred, the areas directly around Jerusalem. Relating this to the *Acts*, we can understand the user of the TMM as an "apostle" traveling the world to spread the mission, accomplished through heuristic study and contemplation.

As stated previously, engaging the visual and textual material in the *DLS* and the TMM mimics the processes of learning through processing along the liturgical pathways in a church, peppered with images that prompt exegetical contemplation. By bringing together macro- (maps) and micro (a church plan) conceptions of space in visual and textual form, both the Tournai map maker and Adomnán project the "sacred time" of church liturgy onto geographic space. [349] When the monk consulted the TMM and was flipping through the folios of the codex, the places listed

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[346] O'Loughlin, "The De Locis Sanctus as a Liturgical Text," 192.

[347] Mittman, *Maps and Monsters*, 35; also see John Wilkinson, trans., "The Holy Places," 219-220.

[348] "Douay-Rheims Bible: Genesis 1:1," last modified 2017, https://drbo.org/chapter/01001.htm.

[349] O'Loughlin, *Adomnán and the Holy Places*, 158.

and pictured were brought to life – each turn of the page a pace forward, toward knowledge on sacred sites in theological history.

Conclusion: Map and Manuscript

Performative cartography, as present in the TMM, is a phenomenon aided by visualized linework, as well as implied lines of connection between information presented on the maps and in the body of the text. On each manuscript page, there is a topography of words and letters arranged in a system of lines, which are compartments for information. Both the gridded landscapes that structure the body of the works in the TMM and the undulating linework on the map accomplish the same goal of ordering knowledge. The monk's research is enlivened by the map or diagram-text associations. A more profound function of the maps in the codex, however, is translocation, achieved in a way that is similar to the itinerary map of Matthew Paris – not just on a two-dimensional plane but through leafing through the codex and engaging it as a three-dimensional object, evoking imagined pilgrimage to Jerusalem.

CONCLUSION

The Tournai map maker mirrored a number of important figures in Latin church and monastic history: Jerome, Isidore of Seville, Adomnán of Iona and Hugh of Saint Victor. First, Jerome, whose empirical research on the geography of the Holy Land led him to Jewish, Hebrew and Greek sources, a method he either concealed or defended in the prefaces in his works.[350] He labored to fill a gap in Christian literature, which ultimately culminated in his Latin translation of the Hebrew Bible, completed at the dawn of the fifth century.[351]

By the twelfth century, it was a common practice for a Latin monastic scriptorium to assemble the Jerome works included in the Tournai map manuscript (as originally intended) into a compendium.[352] But the Tournai map manuscript stands apart from the body of twelfth-century Jerome series manuscripts that survive because of the presence of the maps. His maps were added as an intentional act of scholarly upkeep, because Eusebius alluded to the presence of a *pictura* that would have accompanied the original Greek version of the *Book of Hebrew Places*.

Each scholar (Jerome and the Tournai map maker) conducted his research within a climactic moment in pilgrimage history. Pilgrimage to Jerusalem in both the fourth and twelfth centuries was guided by the goal to Christianize the Holy Land, accomplished through of visitation and attribution of places associated with Christ and his followers. For Latin monks of the twelfth

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[350] Hayward, *Saint Jerome's Hebrew Questions on Genesis*, 2; Williams, *The Monk and the Book*, 86.

[351] Williams, *The Monk and the Book*, 64.

[352] Lambert, *Bibliotheca Hieronymiana Manuscripta*, 199-202.

century, their contemplation of sacred sites around Jerusalem was a way to evoke the presence of the city, and their liturgical chants centering on the Holy City related to their hope towards Latin control. It was a holy act to construct and consult a manuscript focusing on the geography of the holiest of territories, written and compiled by Jerome who translated the Bible. This is an important context within which to remember the Tournai map manuscript.

The Tournai map maker's drawing of Cappadocia in the Isidore loose-leaf, which we can understand from an artistic perspective as "research and development," connect him with Isidore of Seville directly, who was also author of an encyclopedia (*Etymologiae*). Isidore's *Etymologiae* was an essential resource for medieval map makers, who drew on Church Fathers and late-antique authors such as Pliny the Elder.[353] His description of the T-O structure of the world inspired students for centuries reading his works and drawing in the margins of his manuscripts. The fact that the Tournai map maker had his own copy, within which he made notations, suggests that he was referencing his work directly, in tandem with a copy or description of another world map and circular-Jerusalem map. The map maker's combination of various sources contributes to their distinct nature.

Diagrams form another portion of the Tournai map maker's epistemological framework. His Church of the Dormition plan in BL Add. MS 15219 connects him with Adomnán of Iona, seventh-century Bishop and geographer who was close in time with Isidore. His *De Locis Sanctis* provided a link or middle ground between the pilgrimage literature that flourished in both Jerome

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[353] Lewis et al., Introduction to *The Etymologies,* 7.

and the Tournai map maker's periods.[354] His engagement with pilgrimage works such as the *DLS*, the *Transmarians Sacris*, and the Antonius of Piacenza itinerary in BL Add. MS 15219, points to the fact that he probably would at one point have seen a city map of Jerusalem and adapted its design to the icon on the map of Palestine.

The Tournai map maker also shows a knowledge of Hugh of Saint Victor's discussion of diagrams, maps, and memory. Hugh taught with maps and diagrams, evidenced by his *Descriptio mappa mundi* and *Mystic Ark*, showing scholars their function in the twelfth century as didactic aids.[355] His works trained monks in exegetical as well as empirical thought by placing geography as the framework for the monks to develop their skills and knowledge, *sciencia*.

Part of the method that drives this dissertation is my placement of the Tournai map maker's works in conversation with each other. I find reciprocity in their relation to the Greek definition of "graphic" (-γραφή) as both writing and drawing. The common denominator between his graphic works – maps (as drawings) and texts (writing) – is their reliance on spatial organization. In other words, I understand making and reading a map or diagram as the same thing as reading text in a manuscript, or preparing it for future construction. I argue that the image-inscription/reader-viewer dynamic applies to all maps in manuscripts, but with the Tournai maps, I find this in more specificity particularly because of their formal qualities that brings them into

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[354] O'Loughlin, "The De Locis Sanctus as a Liturgical Text," 181.

[355] Terkla, "Hugh of Saint Victor," 161; Scafi, *Mapping Paradise*, 125-128.

relation with diagrams, the format of which flourished in-tandem with the production of maps as well as encyclopedias.

In my first chapter, I noted that Hermann, Bishop of Saint-Martin in Tournai wrote in 1142 that he "delighted in the number of scribes that the Lord had given him, so that if you went into the cloister, you would commonly see twelve young monks seated in chairs and writing in silence at carefully and skillfully made desks."[356] Because medieval map makers were also scribes and craftsmen, it is plausible to imagine they would have made connections between making a manuscript, ruling a page for text, implanting the text, and finally, drawing a map.

If we return to the full map bifolium from the perspective of the Tournai map maker, when he first approached it, we can imagine that the left half (now folio 60v) would have been an empty ruled page or one filled with text, and the right portion, his map of Asia (folio 64r). The right side of the page is effectively a grid, a diagram. Taking this idea into modern cartographic practice, one could understand Hugh of Saint Victor's grid as a graticule. Graticules are the gridded schematics that structure the placement of shapes representing physical features used by Ptolemy and appear on post-fifteenth century maps after his *Geography* was translated into Latin.[357] The intrinsic fact about graticules is that they are the first instance in which "maps lie."[358] Transferring three-dimensional data onto two dimensions, will infallibly distort the shape

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[356] Harvey, Medieval Maps, 41, citing Waitz, trans., "Liber de restauratione monasterii S. Martini Tornacensis," 313.

[357] Woodward, "Medieval Mappaemundi," 286. A few sentences in this paragraph were adapted from my article, see Brott, "Meet Your Maker."

[358] See Mark Monmonier, *How to Lie With Maps*, (Chicago: University of Chicago Press, 1996).

of physical features. Today, there are specific graticules for specific purposes: to represent distances, spatial relationships, and so on.

While our contemporary graticule implies a specific Ptolemaic form of logic, it is the idea of the graticule that links the Tournai maps with the gridded, textual landscapes present in their associated manuscript. Just as a monk envisioned information within Hugh's mental grid when studying scripture, the map maker materialized this mental process in his practice of inscribing place and spaces within the linework on the maps, as well as within the body of the manuscript.[359] In short, the ruled lines in the body of the manuscript should be seen as a diagram, or even as a graticule, within which to organize and recall information. The grid may appear askew at times, but that is inherent in the map making process from the Middle Ages to the present.

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[359] Marcia Kupfer et al. inlay the "cartographic impulse" discussed by Sybille Krämer into their explorations. See Kupfer's explanation, in "Introduction," 11-12; a few sentences in this paragraph were adapted from my article, see Brott, "Meet Your Maker."

BIBLIOGRAPHY

Arad, Pnina. *Christian Maps of the Holy Land: Images and Meanings*. Turnhout: Brepols, 2020.

Arad, Pnina. "Twelfth-Century Maps of the Holy Land: Image, Context, Function." Paper presented at the Borghesi-Mellon Workshop on "Jerusalem in the Medieval and Early Modern Imagination," University of Wisconsin, Madison, WI, October 29, 2020.

Ancient World Mapping Center and Institute for the Study of the Ancient World. "Beth Zur/Bethsoura." *Pleiades: A Gazetteer of Past Places*. Last modified January 30, 2019. https://pleiades.stoa.org/places/687859.

Bailey, Martin. "The Rediscovery of the Hereford Mappamundi." In *The Hereford World Map: Medieval World Maps and Their Context*, edited by P.D.A. Harvey, 45–78. London: The British Library, 2006.

Beazley, Charles Raymond. *The Dawn of Modern Geography*. Vol. 1. London and Oxford: 1897.

Bouloux, Nathalie. "The Munich Map (C. 1130): Description, Meanings and Uses." In *A Critical Companion to English Mappae Mundi of the Twelfth and Thirteenth Centuries*, edited by Dan Terkla and Nick Millea, 92–111. Woodbridge: Boydell Press, 2019.

British Library. Glossary of Illuminated Manuscripts. "Catalogue of Illuminated Manuscripts: Glossaries," British Library Glossary of Illuminated Manuscripts. https://www.bl.uk/catalogues/illuminatedmanuscripts/GlossD.asp#DISPLAYSCRIPT.

Brown, Michelle. "Books and Maps: Anglo-Saxon Glastonbury and Geospatial Awareness." In *A Critical Companion to English Mappaemundi of the Twelfth and Thirteenth Centuries*, edited by Dan and Nick Millea Terkla, 44–67. Woodbridge: The Boydell Press, 2019.

Brown, Michelle P., Ildar H. Garipzanov, and Benjamin C. Tilghman, eds. *Graphic Devices and the Early Decorated Book*. Woodbridge: The Boydell Press, 2017.

Brott, LauraLee. "Meet Your Maker: The Tournai Maps of Asia and Palestine." *The Portolan: The Journal of the Washington Map Society*. Issue 113 (2022): 7–22.

Brott, LauraLee. "The Geography of Devotion in the British Library Map Psalter." *Cartographica: The International Journal for Geographic Information and Geovisualization*. 53, no. 3 (2018): 211–24.

Brown, Michelle. "Books and Maps: Anglo-Saxon Glastonbury and Geospatial Awareness." In *A Critical Companion to English Mappaemundi of the Twelfth and Thirteenth Centuries*, edited by Dan and Nick Millea, 44–67. Woodbridge: The Boydell Press, 2019.

Busby, Keith. *Codex and Context: Reading Old French Verse Narrative in Manuscript*. Amsterdam and New York: Rodopi, 2002.

Camille, Michael. “Seeing and Reading: Some Visual Implications of Medieval Literacy and Illiteracy.” *Art History* 8, no. 1 (1985): 26-49.

Camille, Michael. *Mirror in Parchment: The Luttrell Psalter and the making of Medieval England*. Chicago: University of Chicago Press, 1998.

Carruthers, Mary J. *The Book of Memory: A Study of Memory in Medieval Culture*. Cambridge: Cambridge University Press, 1998.

Carruthers, Mary J. *The Craft of Thought: Meditation, Rhetoric, and the Making of Images, 400-1200*. New York: Cambridge University Press, 1998.

Clemens, Raymond and Timothy Graham. *Introduction to Manuscript Studies*. Ithaca: Cornell University Press, 2008.

Cohen, Adam S. “Diagramming the Diagrammatic: Twelfth-Century Europe.” In *The Visualization of Knowledge in Medieval and Early Modern Europe*, edited by Marcia Kupfer, Adam S. Cohen, and J. H. Chajes, 383–404. Turnhout: Brepols, 2020.

Connolly, Daniel K. *The Maps of Matthew Paris: Medieval Journeys Through Space, Time, and Liturgy*. Woodbridge: Boydell Press, 2009.

Cosgrove, Denis, and Stephen Daniels. Introduction to *The Iconography of Landscape: Essays on the Symbolic Representation, Design, and Use of Past Environments*, 1–10. Edited by Denis Cosgrove and Stephen Daniels. Cambridge and New York: Cambridge University Press, 1988.

Dalché, Patrick Gautier. “Eucher de Lyon, Iona, Bobbio: Le detin d’une mappa mundi de l’antiquité tardive.” *Viator* 41 (2010): 1–22.

Dalché, Patrick Gautier. *La ‘Descriptio mappe mundi’ de Hugues de Saint-Victor: Texte inédit avec introduction et commentaire*. Paris: Études Augustiniennes, 1988.

Dalché, Patrick Gautier. “Maps in Words: The Descriptive Logic of Medieval Geography, From the Eighth to the Twelfth Century.” In *The Hereford World Map: Medieval World Maps and Their Context*, edited by P.D.A. Harvey, 223–42. London: The British Library, 2006.

de Hamel, Christopher. *History of Illuminated Manuscripts*. London: Phaidon Press, 2014.

de Hamel, Christopher. *Medieval Craftsmen: Scribes and Illuminators*. London: British Museum Press, 1992.

de Lagarde, Paul, ed.. *S. Hieronymi Presbyteri Opera, Pars I. Opera Exegetica, 1*. Turnholt: Brepols, 1959.

del Alamo, Elizabeth Valdez. *Palace of the Mind: The Cloister of Silos and Spanish Sculpture of the Twelfth Century*. Turnhout: Brepols, 2012.

Delano-Smith, Catherine. "Maps and Plans in Medieval Exegesis: Richard of St. Victor's in Visionem Ezechielis." In *From Knowledge to Beatitude: St. Victor, Twelfth-Century Scholars, and Beyond*, edited by E. Ann Matter, and Lesley Smith, 1–45. Notre Dame: University of Notre Dame Press, 2013.

Delano-Smith, Catherine. "The Exegetical Jerusalem: Maps and Plans for Ezekiel Chapters 40-48." In *Imagining Jerusalem in the Medieval West*, edited by Lucy Donkin and Hanna Vorholt, 41–75. Oxford: Oxford University Press, 2012.

Delano-Smith, Catherine. "The Intelligent Pilgrim: Maps and Medieval Pilgrimage to the Holy Land." In *Eastward Bound: Travel and Travelers 1050-1550*, edited by Rosamund Allen, 107–30. Manchester and New York: Manchester University Press, 2004.

Delano-Smith, Catherine and E. Morley Ingram. *Maps in Bibles, 1500-1600: An Illustrated Catalogue*. Geneva: Librairie Droz, 1991.

Della Dora, Veronica. *Imagining Mount Athos: Visions of a Holy Place, From Homer to World War II*. Charlottesville: University of Virginia Press, 2011.

Della Dora, Veronica. *Landscape, Nature, and the Sacred in Byzantium*. Cambridge: Cambridge University Press, 2016.

Derolez, Albert et. al. *Corpus Catalogorum Belgii: The Medieval Booklists of the Southern Low Countries. Provinces of Brabant and Hainault, Corpus Catalogorum Belgii / Koninklijke Academie Van Belgie*, vol. 4. Brussels: Paleis der Academiën, 2001.

Douay-Rheims Bible Online. Last modified 2017. https://drbo.org/index.htm.

Edney, Matthew. "The Copy: Printing Processes and the Reproduction of Early Maps, 1830–1945." *The Portolan: Journal of the Washington Map Society* 113 (Spring 2022): 48–63.

Edney, Matthew H. *Cartography: The Ideal and Its History*. Chicago and London: University of Chicago Press, 2019.

Edson, Evelyn. *Mapping Time and Space: How Medieval Mapmakers Viewed Their World*. London: The British Library, 1997.

Edson, Evelyn. *The World Map, 1300-1492: The Persistence of Tradition and Transformation*. Baltimore: Johns Hopkins University Press, 2007.

Fassler, Margot E.. "The Office of the Cantor in Early Western Monastic Rules and Customaries: A Preliminary Investigation." *Early Music History* Vol. 5 (1985): 29–51.

Freeman-Grenville, G.S.P., Rupert L. Chapman III and Joan E, Taylor, eds. *The Onomasticon by Eusebius of Caesarea*. Jerusalem: Carta, 2003.

Friedman, John Block. *The Monstrous Races in Medieval Art and Thought*. Syracuse: Syracuse University Press, 2000.

Fordham University. "Cassiodorus Institutiones: Book I, Translated by James W. and Barbara Halporn." *Internet Medieval Sourcebook: Cassiodorus 490-c.585: On Classical Learning 562 AD*. Last updated November 23, 2023. https://faculty.georgetown.edu/jod/inst-trans.html.

Foys, Martin. "Medieval Manuscripts: Media Archaeology and the Digital Incunable." In *The Medieval Manuscript Book: Cultural Approaches*, edited by Michael Johnston and Michael Van Dusser. Cambridge University Press, 2015.

Foys, Martin. *Virtually Anglo-Saxon: Old Media, New Media, and Early Medieval Studies in the Late Age of Print*. Gainesville: University of Florida Press, 2007.

Gerhardt, Heidi. *Theophilus and the Theory and Practice of Medieval Art*. University Park: Penn State University Press, 2017.

Greene, William Chase, trans. *Augustine's City of God, Volume VI: Books 18.36–20*. Loeb Classical Library 416, Cambridge: Harvard University Press, 1960.

Godlewska, "Jomard: The Geographic Imagination and the First Great Facsimile Atlases." In *Editing Early and Historical Atlases*, edited by Joan Winearls. 109–36. Toronto: University of Toronto Press, 1995.

Hamburger, Jeffrey F., and Anne-Marie Bouché, eds. *The Mind's Eye: Art and Theological Argument in the Middle Ages*. Princeton: Princeton University Press, 2006.

Harvey, P.D.A. *Medieval Maps of the Holy Land*. London: The British Library, 2012.

Hawthorne, John G. and Cyril Stanley Smith, trans. *On Divers Arts: The Foremost Medieval Treatise on Painting, Glassmaking, and Metalwork*. New York: Dover Publications, 1979.

Hayward, C. T. R. *Saint Jerome's Hebrew Questions on Genesis*. Oxford: Clarendon Press, 1995.

Horn, Walter and Ernest Born. *The Plan of St. Gall: A Study of the Architecture and Economy of Life in a Paradigmatic Carolingian Monastery*. Berkeley: University of California Press, 1979.

Juste, David, Benno van Dalen, Dag Nikolaus Hasse, and Charles Burnett, eds.. *Ptolemy's Science of the Stars in the Middle Ages*. Turnhout: Brepols, 2020.

Johnston, Michael and Michael Van Dussen, eds. *The Medieval Manuscript Book: Cultural Approaches*. Cambridge: Cambridge University Press, 2015.

Jomard, Edmé-François. *Les Monuments De La Géographie Ou Recueil D'anciennes Cartes*. Paris: Duprat, 1842.

Kupfer, Marcia. *Art and Optics in the Hereford Map: An English Mappa Mundi, C. 1300*. New Haven: Published for the Paul Mellon Centre for Studies in British Art by Yale University Press, 2016.

Kupfer, Marcia. *Introduction to The Visualization of Knowledge in Medieval and Early Modern Europe*, edited by Marcia Kupfer, Adam S. Cohen, and J. H. Chajes, 10-32. Turnhout: Brepols, 2020.

Kupfer, Marcia. "Reflections in the Ebstorf Map: Cartography, Theology and Dilectio Speculationis." In *Mapping Medieval Geographies: Geographical Encounters in the Latin West and Beyond, 300-1600*, edited by Keith D. Lilley, Cambridge: Cambridge University Press, 2013.

Kupfer, Marcia. "Traveling the Mappa Mundi: Readerly Transport from Cassiodorus to Petrarch." In *Maps and Travel in the Middle Ages and the Early Modern Period: Knowledge, Imagination, and Visual Culture*, edited by Nirit Ben-Aryeh Debby, Katrin Kogman-Appel, and Ingrid Baumgärtner, 1–17. Berlin: De Gruyter, 2019.

Kupfer, Marcia. "Worlds Enmeshed." In *At Home in the World: The Life and Art of Gulammohammed Sheikh*, edited by Chaitanya Sambrani, 278–93. New Delhi: Tulika Books in association with Vadehra Art Gallery, 2019.

Kühnel, Bianca. "Carolingian Diagrams, Images of the Invisible." In *Seeing the Invisible in Late Antiquity and the Early Middle Ages*, edited by Karl F. Morrison and Marco Mostert Giselle de Nie, 359–89. Turnhout: Brepols, 2005.

Kwakkel, Erik. *Books Before Print*. Leeds: Arc Humanities Press, 2018.

Kwakkel, Erik. "Cultural Residue in Medieval Manuscripts." In *The Medieval Manuscript Book: Cultural Approaches*, edited by Michael Johnston and Michael Van Dussen, 60–76. Cambridge: Cambridge University Press, 2015.

Lambert, Bernard. *Bibliotheca Hieronymiana Manuscripta: La Tradition Manuscrite des œuvres de Saint Jérôme*. Steenbrugis, in abbatial S. Petri ['s-Gravenhage]: Martinus Nijoff, 1969.

Lewis, Suzanne. *The Art of Matthew Paris in the Chronica Majora*. Berkeley: University of California Press in collaboration with Corpus Christi College, Cambridge, 1987.

Lewis, W.J., Stephen A. Barney, J. A. Beach, Oliver Berghof, trans. *The Etymologies of Isidore of Seville*. Cambridge University Press: Cambridge University Press, 2006.

Lidov, Alexei. “Hierotopy: The Creation of Sacred Spaces as a Form of Creativity and Subject of Cultural History.” In *Hierotopy: The Creation of Sacred Spaces in Byzantium and Medieval Russia*, edited by Alexei Lidov. Moscow: Indrik, 2006.

Low, Peter. “‘You Who Once Were Far Off”: Enlivening Scripture in the Main Portal at Vézelay.” *Art Bulletin* 85, no. 3 (2003). 469–89

Miller, Konrad. *Mappaemundi Die Ältesten Weltkarten Herausgegeben Und Erläutert*. Stuttgart: Jos. Roth’sche Verlagshandlung, 1895.

Mittman, Asa, “Far From Jerusalem: The Exclusion of Jews on Christian Maps.” Paper presented as part of the Medieval Studies Program, University of Wisconsin-Madison, Madison, WI, October 15, 2020.

Mittman, Asa Simon. *Maps and Monsters in Medieval England*. London and New York: Routledge, 2006.

Mittman, Asa Simon. “Seeing Across the World: How Medieval Mapmakers Brought Their Monsters Home.” Paper presented at The Washington Map Society, Washington D.C., March, 8, 2022.

Monmonier. Mark. *How to Lie With Maps*. Chicago: University of Chicago Press, 1996.

Mommsen, Weidmann, trans. and ed. *C. Julius Solinus’s Collectanea rerum memorabilium*. Berlin: Weidmann, 1895.

Notley, R. Steven and Zev Safrai, trans. *Onomasticon: The Place Names of Divine Scripture Including the Latin Edition of Jerome*. Boston: Brill, 2005.

O’Doherty, Marianne. “The Holy Land Map in Cambridge, Corpus Christi College, MS 426 in Context.” Paper presented at the International Medieval Congress, University of Leeds, Leeds, UK, July 2, 2019.

O’Loughlin, Thomas. *Adomnán and the Holy Places: The Perceptions of an Insular Monk on the Locations of the Biblical Drama*. Edinburgh: T & T Clark, 2008.

O’Loughlin, Thomas. “Adomnán’s Plans in the Context of His Imagining ‘the Most Famous City’,” In *Imagining Jerusalem in the Medieval West*, edited by edited by Lucy Donkin, and Hanna Vorholt, 15–40. Oxford: Published for the British Academy by Oxford University Press, 2012.

O’Loughlin, Thomas. “The De Locis Sanctus as a Liturgical Text.” In *Adomnán of Iona: Theologian, Lawmaker, Peacemaker*, edited by Jonathan M. Wooding, Rodney Aist, Thomas Owen Clancy, and Thomas O’Loughlin, 181–92. Dublin: Four Courts Press, 2010.

Online Etymology Dictionary. “Encyclopedia.” Accessed November 3, 2022. https://www.etymonline.com/word/encyclopedia#etymonline_v_8648.

Pentcheva, Bissera. *Hagia Sophia: Sound, Space, and Spirit in Byzantium*. University Park: Pennsylvania State University Press, 2017.

Pentcheva, Bissera. *The Sensual Icon: Space, Ritual, and the Senses in Byzantium*. University Park: Pennsylvania State University Press, 2010.

Poleg, Eyal. “The Interpretations of Hebrew Names in Theory and Practice.” In *Form and Function in the Late Medieval Bible*, 217–36. Leiden: Brill, 2013.

Rudolph, Conrad. ‘*First, I Find the Center Point:’ Reading the Text of Hugh of Saint Victor’s Mystic Ark.* Philadelphia: American Philosophical Society, 2004.

Rudolph, Conrad. “Macro/microcosm At Vézelay: The Narthex Portal and Non-Elite Participation in Elite Spirituality.” *Speculum* 96, no. 3 (2021): 602–61.

Rudolph, Conrad. *The Mystic Ark: Hugh of Saint Victor, Art, and Thought in the Twelfth Century*. New York: Cambridge University Press, 2014.

Rudy, Kathryn M.. “A Guide to Mental Pilgrimage: Paris, Bibliotheque De L’arsenal Ms. 212.” *Zeitschrift für Kunstgeschichte* 6363 (2000): 494-515.

Rudy, Kathryn M. “Dirty Books: Quantifying Patterns of Use in Medieval Manuscripts Using a Densitometer.” *Journal of Historians of Netherlandish Art* 2. no. 1–2 (2010): 1–44.

Rudy, Kathryn M. *Virtual Pilgrimages in the Convent: Imagining Jerusalem in the Late Middle Ages*. Turnhout: Brepols, 2011.

Visconde de Santarém, Manuel Francisco de Barros e Sousa. *Atlas composé de cartes des XIV–XVII siècles*. Paris: [n.p.] 1841.

Scafi, Alessandro. *Mapping Paradise: A History of Heaven on Earth*. London: The British Library, 2006.

Sheehan, Peter. *Babylon of Egypt. The Archaeology of Old Cairo and the Origins of the City*. Cairo: American University in Cairo Press, 2015.

Sheingorn, Pamela. “Performing the Illustrated Manuscript: Great Reckonings in Little Books.” In *Visualizing Medieval Performance: Perspectives, Histories, Contexts*, edited by Elena Gertsman, 57–82. Aldershot: Ashgate, 2008.

Schoenberg Institute of Manuscript Studies. *Virtual Mappa 2.0: Digital Editions of Early Medieval Maps of the World*. Last modified, 2020: https://sims2.digitalmappa.org/36.

Simon, Jesse. “Chorography Reconsidered: An Alternative Approach to the Ptolemaic Definition.” In *Mapping Medieval Geographies: Geographical Encounters in the Latin West and Beyond, 300-1600,* edited by Keith D. Lilley, 23–44. Cambridge: Cambridge University Press, 2013.

Smith, Lesley. “Biblical Gloss and Commentary: The Scaffolding of Scripture.” In The *Visualization of Knowledge in Medieval and Early Modern Europe*, edited by Marcia Kupfer, Adam S. Cohen, and J. H. Chajes, 115–36. Turnhout: Brepols, 2020.

Taylor, Jerome, trans. *The “Didascalicon” of Hugh of St. Victor: A Medieval Guide to the Arts*. New York and London: Columbia University Press, 1961.

Theodor, Karl Friedrich. *Naturalis Historia: Pliny the Elder*. Leipzig: Teubner, 1906.

Terkla, Dan. “Books and Maps: Anglo-Norman Durham and Geospatial Awareness.” In *A Critical Companion to English Mappae Mundi of the Twelfth and Thirteenth Centuries*. Edited by Dan Terkla and Nick Millea, 68–91. Woodbridge: Boydell Press, 2019.

Terkla, Dan. “Hugh of St. Victor (1096–1141) and Anglo-French Cartography.” *Imago Mundi* 65, no. 2 (2013): 161–79.

Terkla, Dan. “Books and Maps: Anglo-Norman Durham and Geospatial Awareness.” In *A Critical Companion to English Mappae Mundi of the Twelfth and Thirteenth Centuries*. Edited by Dan Terkla and Nick Millea, 68–91. Woodbridge: Boydell Press, 2019.

Terkla, Dan and Nick Millea, eds. *A Critical Companion to English Mappaemundi of the Twelfth and Thirteenth Centuries*. Woodbridge: Boydell Press, 2019.

Vikan, Gary. *Early Byzantine Pilgrimage Art*. Washington D.C.: Dumbarton Oaks Research Library and Collection, 2010.

Vorholt, Hanna. “Studying With Maps: Jerusalem and the Holy Land in Two Thirteenth-Century Manuscripts.” In *Imagining Jerusalem in the Medieval West*, edited by Lucy Donkin, and Hanna Vorholt. Oxford: Oxford University Press, 2012.

Wallis, Faith. “What a Medieval Diagram Shows: A Case Study of Computus.” *Studies in Iconography* 36 (2015): 1–40.

Waitz, Georg, trans. “Liber de restauratione monasterii S. Martini Tornacensis.” In *Monumenta Germanie historica: scriptores* 14 (1883): 274–360.

Weingarten, Susan. *The Saint’s Saints: Hagiography and Geography in Jerome*. Leiden and Boston: Brill, 2005.

Whittington, Karl. *Body-Worlds: Opicinus de Canistris and the Medieval Cartographic Imagination*. Toronto: Pontifical Institute of Mediaeval Studies, 2014.

Wilcox, Jonathan, ed. *Scraped, Stroked, and Bound, Materially Engaged Readings of Medieval Manuscripts*. Turnhout: Brepols, 2013.

Williams, Megan Hale. *The Monk and the Book: Jerome and the Making of Christian Scholarship*. Chicago: University of Chicago Press, 2006.

Woodward, David. "Medieval Mappaemundi." In *The History of Cartography, Volume One: Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, edited by J.B. Harley, and David Woodward, 286–370. Chicago and London: The University of Chicago Press, 1987.

Worm, Andrea. "'Ista Est Jerusalem': Intertextuality and Visual Exegesis in Peter of Poitiers' Compendium *Historiae in Genealogia Christi* and Werner Rolevinck's *Fasciculus Temporum*." In *Imagining Jerusalem in the Medieval West*, edited by Lucy Donkin and Hanna Vorholt, Oxford: Oxford University Press, 2012.

Zangemeister, Karl ed.. *Pauli Orosii Historiarum adversum Paganos Libri VII*. Leipzig: Teubner, 1889.

APPENDIX 1: TABLES

Table 1: Number of place names on the maps that appear in the texts

The Tournai Map Manuscript	***Book of Hebrew Questions on Genesis***		***Interpretation of Hebrew Names***		***Book of Hebrew Places***		**Aggregate Sum**
Map of Asia Total places: 278	Map: 53	Text: 50	Map: 80	Text: 78	Map: 57	Text: 50	Map: 110
Map of Palestine Total Places: 203	Map: 74	Text: 64	Map: 97	Text: 86	Map: 126	Text: 118	Map: 140

"Map" and "text" are distinguished because place names are often repeated on the maps or separated out into specific regions such a Phrygia Superior and Phrygia Inferior. I only count Phrygia once in reference to its mention in the text; while on the map, it is represented multiple times, hence the different numbering. I include physical features that are associated with a place name in these figures, such as the Armenian mountains as a moment on the map that relates to the mentioning of Armenia in the respective texts. I have also chosen to include the Indian Egyptians as mentioned in each series, because each place name is individually indicated (i.e. India and Egypt). A close version of this table was published in my article, see Brott, "Meet Your Maker."

Table 2: Erasures beneath the Tournai map of Asia (the original map of Palestine) and their presence in the TMM

Erasure beneath the Map of Asia, fol. 64r	**Spelling on Map of Palestine, fol. 64v**	**Location in *Book of Hebrew Places*, fols. 44r-63v** **Modern translation / normalized inscription in TMM**		**Location in *Interpretation of Hebrew Names*, fols. 22v-43v** **Modern translation / normalized inscription in TMM**		**Location in *Book of Hebrew Questions on Genesis*, fols. 1v-21r** **Modern translation / normalized inscription in TMM**	
*Caesarea Philippi	cesarea philippi uel abilina	In Aniel section; Freeman-Grenville, p. 24 (clarifies that Caesarea in the description is Caesarea Philippi)	cesarea, fol. 47v	-		-	
Bethania (Bethany)	bethania	Freeman-Grenville, p. 36	Bethana, fol. 50r	Lagarde, p. 135	Bethania, fol. 38r	-	
*Vallis Iosaphat (Valley of Josephat)	vallis iosaphat	In Coelas section; Freeman-Grenville, p. 67 (clarifies that "Iosafat" is the Valley of Josephat)	uallis Josaphat, fol. 51r	-		-	
Galgalis (Gilgal)	Galgalis	Freeman-Grenville, p. 41	Galgala, fol. 55v	Lagarde, p. 94	Galgalis, fol. 29v	Hayward, p. 54	galgala, fol. 10r
Iericho (Jericho)	ierico	Freeman-Grenville, p. 61	Iericho, fol. 56v	Lagarde, p. 137, 157	Iericho, fols. 38v, 42v	-	
Mons Olieti (Mount of Olives)	mons oliueti	The Mount of Olives is within many descriptions, such as Coelas; Freeman-Grenville, p. 67	montem oliueti, fol. 51r	-		-	
Ihrlm (Jerusalem)	ihrlm	Freeman-Grenville, p. 61	Iervsalem, fol. 57r	Lagarde, p. 121	Ierusalem, fol. 35v	Hayward, p. 47, 71	Iherlm (Iherusalem), fols. 8r, 16r

Hebron (Chebron)	Ebron	Freeman-Grenville, p. 95	Hebron, fol. 51v	Lagarde, p. 64	Chebron, fol. 23v	Hayward, p. 56, 73	Ebron, fol. 11r; Chebron, fol. 16v
Bersabee	Bersabee	Freeman-Grenville, p. 34	Bersabee, fol. 49v	Lagarde, p. 121	bethsabee, fol. 31v	Hayward, p. 54, 62	bersabee, fols. 10r, 10v, 13r
Bethleem (Bethlehem)	Bethleem	Freeman-Grenville, p. 31	Bethleem, fol. 49r	-		Hayward, p. 73	bethleem, fol 16v
Betsura (Bethsura, Bethsur, Betsoura)	Betsura	Freeman-Grenville, p. 35	Bethsur, fol. 50r	Lagarde, p. 91	Bethsur, fol. 29r	-	
Aschalon	Aschalon	Freeman-Grenville, p. 21	Ascalon, fol. 46v	Lagarde, p. 89	Ascalon, fol. 28v	-	

Place-names included on the original map of Palestine, now beneath the current map of Asia on the recto of the map folio, and their presence in the Jerome texts of the Tournai map manuscript. The * symbol indicates places that do not have their own section within the *Book of Hebrew Places* but are instead mentioned within notations of other locales. I have also chosen to flesh outs many of the medieval abbreviations, at times clarifying with parentheses. This table does not include place names inlaid within the tracts of text that were also uncovered as erasures by Paul Harvey, which are likely a summary of the holy sites in Jerusalem, copied from another manuscript (see Harvey, *Medieval Maps,* 42-3, 51-2). The only erasure that is not within a paragraph of text, and is not in the *Book of Hebrew Places*, is *Desertus ubi dominus ieiunauit*, or the "Desert where the Lord fasted." A close version of this table was published in my article, see Brott, "Meet Your Maker."

Table 3: Places on the Tournai Map of Asia

Normalized Transcription	English Translation	HQG	IHN	BHP
Abana Damasci Fluuius.	Abana River of Damascus.	x	x	x
Abidos Ciuitas	City of Abydos			
Achaia	Achaia or Achaea		x	
Acheron, fluuius infernalis.	Acheron, the infernal river.			
Adiapeni	Adiabene			
Alani Scite	Alani Scite			
Alanus Fluuius	Alanus River			
Albania	Albania			
Alexandria	Alexandria (on the Indus)			
Allipodes Scite	Allipodes or Callipodes of Scythia			
Amazones	Amazons			
Amphipolis	Amphipolis			
Antilibanus Montes	Anti-Lebanon Mountains			x
Antiochia	Antioch	x	x	
Apamia Ciuitas	City of Apamea			
Apollonia Ciuitas	City of Apollonia		x	
Aracusia Ciuitas	City of Arachosia			
Arados	Arados			
Araxis Fluuius	Araxes River			
Arca Noe	Noah's Ark		x	x
Archadia	Arcadia			
Are Alexandri	Altars of Alexander			
Aretusa Ciuitas	City of Arethusa			
Argire insula argento habundat.	Argyre island abounds with silver.			
Arimaspi	Arimaspi			
Arimathia	Arimathea		x	x

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Armenia Ciuitas	City of Armenia		x	x
Armenia Inferior	Lower Armenia		x	x
Armenia Superior	Upper Armenia		x	x
Armenie Pile	Armenian Mountains		x	x
Asiaticum	Asiatic [Sea]			
Athene Ciuitas	City of Athens		x	
Athos [Mons]	Mount Athos			
Attalia Ciuitas	City of Antalya		x	
Aulona Ciuitas	City of Aulon			
Hur, patria Abrae, Babilon.	Ur, the land of Abraham, [in] Babylon.	x	x	x
Bactriani	Bactria			
Bactrus Fluuius	Bactrus River			
[B]arbaries	Barbarians			
Beritus	Beruit			
Beroea Ciuitas	City of Berea (also Beroea or Beroca)		x	
Biblos	Byblos			
Bitinia	Bithynia		x	
Bosforani	Bosphorani			
Bosor Ciuitas	City of Bosor		x	x
Calcedon Ciuitas	City of Chalcedon			
Caligardama Promunctorium	Caligardamna Promentory			
Campus Sennaar	The Field of Shinar		x	x
Capadocia Ciuitas	City of Cappadocia	x	x	x
Caria	Caria			
Carmania Provintia	Province of Carmania			
Carmelus	Mount Carmel	x	x	x
Carnania	Acarnania			
Caros	Caros			
Carpatium	Carpathian [Sea]			
Carpatos	Karpathos			

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Caspie Porte, ut quidam dicunt.	Caspian Gates, as some call [it].			
Caspius Mare	Caspian Sea			
Caucasus Mons	Caucasus Mountains			
Celes Ciuitas	City of Celaenae			
Cencris portus Corintiorum	Cenchrae, [the] port of Corinth.		x	
Cesarea Ciuitas	City of Cesarea		x	
Cesarea Philippi, uel Abilina.	Caesarea Philippi, or Abilina/Abilene			x
Cesone Gentes	Cesone peoples			
Chalanne Ciuitas	City of Calneh	x	x	x
Chaldea	Chaldea	x	x	x
Chana	Cana		x	x
Charchamis Ciuitas	City of Carchemish		x	x
Charris Ciuitas, hec est Aran.	Charra city, this is Aran.	x	x	x
Cholchi	Colchis			
Choos	Choos			
Cignus Fluuius	Cydnus River			
Cimericum Mare	Cimmerian Sea			
Ciprus Insula et Ciuitas.	Cyprus, island and city.	x	x	x
Cizicum Ciuitas	City of Cizicum			
Cliteron Fluuius	Cliteron River			
Cobar Fluuius	The Cobar River (modern-day Chebar River)			x
Colophon Ciuitas	City of Colophon			
Commagena Prouincias	Province of Commagene			
Constantinopolis	Constantinople (Istanbul)			
Corcira	Corcira			
Corintus Ciuitas	City of Corinth		x	
Corozaim	Chorazin			x

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Creta insula, cum cicladibus, septima est Grecorum prouincia. Centum enim habet ciuitates.	Island of Crete, with the seven Cyclades, is a province of the Greeks. It has one hundred cities.		x	
Crise Insula auro habundat.	Chryse Island abounds gold.			
Cylicia	Cilicia	x	x	x
Dalmatia	Dalmatia		x	
Damascus	Damascus	x	x	x
Dan	Dan [River]	x	x	x
Danubius uel Hister Fluuius.	The Danube or Ister River.			
Decapolis	Decapolis			x
Decusa	Dascusa			
Delos	Delos			
Derbe Ciuitas	City of Derbe			
Diocesarea	Diocesarea			x
Dioscoris Ciuitas	City of Dioscoris			
Drusias Ciuitas	City of Drusias			
Ecbathanis Ciuitas	City of Ecbatana			
Ectesifontis Ciuitas	City of Ctesiphon	x		x
Edissa Ciuitas	City of Edessa (Mesopotamia)	x		x
Effesus Ciuitas	City of Ephesus		x	
Egea	Aegean [Sea]			
Eles Fluuius	Eles River			
Emath Ciuitas	City of Emath	x	x	x
Enochi Scite	Heniochi of Scythia			
Enos omnium, ciuitas prima.	Enos, the first city of all.		x	
Epirus	Epirus			
Eraclia Ciuitas	City of Herakleion (Pieria)			

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Ermon Mons	Mount Hermon		x	x
Ermus Fluuius	Hermus River			
Eufrates [Fluuius]	Euphrates River	x	x	x
Euri Scite	Neuri of Scythia			
Nubiger Eurus	East wind, produced from a cloud.			
Euxinus Pontus	Black Sea			
Farfar Fluuius	Pharpar River		x	x
Fesis Fluuius	Phasis River			
Frigia Inferior	Lower Phrygia	x	x	
Frigia Superior	Upper Phrygia	x	x	
Galathe Ciuitas	City of Galathe			
Galathia	Galatia	x	x	
Galilea	Galilea	x	x	
Ganges uel Fison Fluuius	Ganges or Phison River	x	x	x
Geloni Scite	Geloni or Gelonians of Scythia			
Gera Fluuius	Gera River		x	
Germanicia Ciuitas	City of Germanicia			
Gnidos	Knidos			
Eoae Gentes	*Eoae Gentes*			
[...] Gothi, qui [est?] Gete.	. . .Gothi, who [are] Getae.	x		
Hiberia	Iberia	x		
Hidaspis Fluuius	Hydaspes River			
Hipanis Fluuius	Hypanis River			
Hiperborei	Hyperborei			
Hipode equina crura habent.	Hippopodes have horses' legs.			
Hircania	Hyrcania			
Huni Scite	Huns of Scythia			
Iconium Ciuitas	City of Iconium		x	
Ilas Fluuius	Hylas River			

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Illiricus	Illyricum			
India	India	x		
India Inferior	Lower India	x		x
India Superior	Upper India	x		x
Indicus Oceanus	Indian Ocean	x		x
Indicus Oceanus	Indian Ocean [indicated twice]	x		x
Indus Fluuius	Indus River			
Insula	Island [unnamed]			
Ionicum	Ionian [Sea]	x		
Ionium	Ionia	x		
Ior	Jor River	x		x
Isauria	Isauria			
Issicum	[Gulf of] Issus			
Jabes Ciuitas	City of Jabes Galaad (Jabesh-Gilead)		x	x
Jope Portus	Port of Jaffa		x	x
Jordanis [Fluuius]	Jordan River	x	x	x
Lacedemon Ciuitas	City of Laconia or Lacedaemonia			
Lamascum Ciuitas	City of Lampsacus			
Laodicia	Laodicea		x	
Libanus Mons	Mount Lebanon	x		x
licaonia	Lycaonia		x	
Licus fluuius, qui est marsias.	Lycus River, which is Marsyas.			
Lidia	Lydia	x		
listra Ciuitas	City of Lystra		x	
Litia	Lycia			
Macedonia	Macedonia	x	x	
Maleus Mons	Mount Maleus			
Mandri Gentes	Mandri peoples			
Massagete	Massagetae			
Meander Fluuius	Meander River			
Media	Media			

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Melitana Ciuitas	City of Melitana			
Meotie Palus	Sea of Azov			
Mesia	Myra?		x	
Mesia, hec est uulgaria.	Moesia, this is Bulgaria.			
Mesopotamia Sirie	Mesopotamia of Syria	x	x	x
Migdonia	Mygdonia			
Miletus Ciuitas	City of Miletus		x	
Mitilene	Mytilene		x	
Acroceraunii [Mons]	Acroceraunian Mountains			
Mons Sephar	Mount Sephar			x
Montes Ange	Mountains of Argaeus			
Montes Dedali	Mountains of Daedalus			
Montes Riphei	Rhiphaen Mountains			
Nazanzum Ciuitas	City of Nazianzus			
Neapolis Ciuitas	City of Neapolis			
Neapolis Ciuitas	City of Neapolis (Thrace)		x	
Nicea Ciuitas	Nicaea			
Nicea Ciuitas	City of Nicaea			
Nicomedia Ciuitas	City of Nicomedia			
Ninue	Nineveh	x	x	x
Nisan, ciuitas liberi patris.	Nysa, city of the free father.			
Achalis hec est Nisibi ciuitas.	Achalis is the city of Nusaybin.			x
Octorogorra Fluuius et Ciuitas.	River and city of Octorogorra.			
Olimpus [Mons]	Mount Olympus			
Orontes Fluuius	Orontes River			
Ossa [Mons]	Mount Ossa			
Oxus Oppidum	Town of Oxus (Oxiana, or Alexandria on the Oxus?)			
Oxus Fluuius	Oxus River			
Pactolus Fluuius	Pactolus River			
Paflagonia	Paphlagonia	x		

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Paflagonia	Pelagonia			
Pamphilia	Pamphylia		x	
Pamphilicum	Pamphylia			
Pannonia	Pannonia			
Paropanissade Montes	Hindu Kush range, in the Himalayan Mountains.			
Parthia	Parthia		x	
Passiadre, siluas habent pipereas.	Passiande, [they] have pepper forests.			
Pataram	Patara			
Patera Ciuitas	City of Patara		x	
Patmos	Patmos			
Patras Ciuitas	City of Patras			
Pelius [Mons]	Mount Pelion			
Pergamus Ciuitas	City of Pergamum		x	
Perge Ciuitas	City of Pergen			
Persepolis, ciuitas caput Persici regni.	Persepolis, city capital in kingdom of Persia.			
Persia	Persia	x		
Philippus Ciuitas	City of Philippi (Macedonia)			
Pigmei cum gruibus pugnant.	Pygmies fight with cranes.			
Pindus [Mons]	Pindus Mountains			
Pontus	Pontus			
Priena Ciuitas	City of Priene			
Ptholomaida	Ptolemais		x	x
Rages Ciuitas	City of Rhages			
Rhobasci Sithe	Rhobasci of Scythia (a people)			
Rhodus	Rhodes	x	x	
Sabaria Ciuitas	City of Sabaria			
Salona Ciuitas	City of Salona			
Samos	Samos			
Samosata Ciuitas	City of Samosata			

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Samotracia	Samothrace		x	
Sardania	Dardania or Sardona/Scardona (modern-day Skradin)			
Sardis	Sardis		x	
Sauromate	Sauromatians or Sarmatians			
Scitia Suprema	Upper Scythia	x		
Seleucia	Seleucia		x	
Seleutia Ciuitas	City of Seleucia	x		
Seleutia Ciuitas	City of Seleucia			
Sephar Mons	Mount Sephar			
Seres Oppidum	Town of Seres			
Sericus	Sericus (China) [Ocean]			
Sidon	Sidon	x	x	x
Sinus Attacenus	Gulf of Attacenus			
Siria Sobal	Syria Sobal	x	x	x
Sirmium Ciuitas	City of Sirmium			
Smirna	Smyrna		x	
Solis Insula	Island of the Sun			
Subsolanus, qui est Aphilotes.	Subsolanus, which is Apeliotes.			
Hic initium orientis estiui.	Here is where the sun rises.			
Susa Ciuitas	City of Susa			
Syria Celes	Coele Syria, Hollow of Syria	x	x	x
Tabrotane Inſula: hec pars habitabiliſ, hec pars inhabitabilis.	Taprobane Island: this part [is] habitable, this part [is] inhabitable.			
Tanais Fluuius	Tanais River			
Taurus Mons	Mount Taurus	x		
Tenedos	Tenedos			
Teramne Ciuitas	City of Therapne			

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Tessalia	Thessaly			
Thabor Mons	Mount Tabor		x	x
Thalii Scite	Thali of Scythia			
Tharsus	Tarsus	x		
Thebe Ciuitas	City of Thebes		x	
Themiscerii Campi	Plains of Themiscyra			
Theodosia Civitas	City of Feodosia			
Thessalonia Ciuitas	City of Thessaloniki		x	
Tiatira	Thyatria		x	
Tigris Fluuius	Tigris River		x	x
Tilos insula	Island of Tile			
Tirus	Tyre		x	x
Tracia Prouincia	Province of Thrace	x		
Traconitis et Iturea.	Trachontis (Lajat) and Iturea.	x	x	x
Tripolis	Tripoli	x		
Troade Ciuitas	(The region of) Troade or Alexandria Troas (a city)		x	
Troia	Troy			
Ilium Civitas	City of Ilium			
Ultima Ophir	Ophir outer	x	x	x
[V]ulturnus, qui est Calcias.	Vulturnus (east northeast wind), which is Calcias.			

Normalized transcription and English translations from *Virtual Mappa 2.0: Tournai Map of Asia*: https://sims2.digitalmappa.org/36. Translations: *Book of Hebrew Questions on Genesis* (HQG): Hayward, C. T. R. *Saint Jerome's Hebrew Questions on Genesis*; *Interpretation of Hebrew Names* (IHN): Lagarde, *Jerome: S. Hieronymi Presbyteri Opera, Pars*; Book of Hebrew Places (BHP): Steven and Safrai. *Onomasticon: The Place Names of Divine Scripture Including the Latin Edition of Jerome* and Freeman-Grenville, *The Onomasticon By Eusebius of Caesarea*.

Table 4: Places on the Tournai Map of Palestine

Normalized translation	English Translation	HQG	IHN	BHP
Acharon	Ekron		x	x
Alexandria	Alexandria	x		
Alia	Aqaba			x
Amalech	Amalek	x	x	x
Amorrei	Amorites	x	x	x
Antilibanus	Anti-Lebanon [Mountains]			x
Antiochia	Antioch	x	x	
Antipatrida	Antipatris [modern-day Tel Afek]			x
Arabia, terra Saba	Arabia, land of Saba	x	x	x
Arabicus Sinus	Arabian Gulf	x	x	x
Arachusia	Arachosia			
Arados	Arados [modern-day Arwad]			
Arimathia	Arimathea		x	x
Armenia	Armenia		x	x
Aschalon	Ashkalon		x	x
Asiaticum	Asiatic [Sea]			
Assiria	Assyria	x	x	x
Azotus	Ashdod		x	x
Babilonia Nova	New Babylonia [modern-day Cairo]			
Babilonia Regio	Region of Babylonia	x	x	x
Beritus	Beirut			
Bersabee	Beersheba [modern-day Bir es Saba]	x	x	x
Bethania	Bethany		x	x
Bethel	Bethel	x	x	x
Bethleem	Bethlehem	x		x
Betsaida	Bethsaida		x	x
Betsames	Beit Shemesh		x	x
Betsura	Beth-Zur		x	x
Biblos	Byblos			
Cafarnaum	Capernaum			x
Caifas Opidum	Town [of] Haifa		x	x

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Canopus Insula	Island of Canopus [modern-day Island of Abukir]			
Capharnaum	Capharnaum			x
Capi Fluvius	Capi River			
Cariatiarim	Cariatiarim or Cariathiarim		x	x
Carmania	Carmania			
Carpatium	Carpathian [Sea]			
Carpatos	Karpathos			
Cesaerea	Cesaerea [Maritima]		x	x
Cesarea Philippi vel Abilina	Cesarea Philippi, or Abilina/Abilene			x
Chaldea Regio	Region of Chaldea	x	x	x
Chana	Cana		x	x
Charos	Caros [modern-day Icaria]			
Choos	Kos			
Cilicicus Sinus	Cilician Gulf	x	x	x
Cimericum	Cimmerian [Sea]			
Ciprus insula	Island of Cyprus	x	x	x
Civitas Dapnis	City of Daphnae [later Tahpanhes, modern day Tell Defenneh]			x
Civitas Elipolis	City of Heliopolis	x		x
Civitas Eracleos	City of Heracleion			x
Civitas Maretonium	Paraetonium [modern-day Marsa Matruh]			
Civitas Memphis	Memphis			x
Civitas Ostrakena	Ostracena/Ostrakine, [modern-day El Felusiyat]			x
Civitas Pelusium	City of Pelusium			
Civitas Serapium	City of Serapium		x	
Civitas Siene	Siene, Soene, or Syene [modern-day Aswan]			x
Climax Mons	Mount Climax			
Columne Alexandri	Altars or Pillars of Alexander			

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Columne Erculis	Pillars of Hercules			
Constantinopolis	Constantinople [modern-day Istanbul]			
Corazaim	Corazin		x	x
Damascus	Damascus	x	x	x
Dan	Dan [River]	x		x
Dan civitas	City of Dan			x
Decapolis	Decapolis [Region]			x
Delos	Delos			
Deserta	Desert			
Desertum Cades	Kadesh Desert	x	x	x
Desertum ubi Dominus jejunavit.	The desert where the Lord fasted.			
Diocesarea	Diocesarea [modern-day Sepphoris]			x
Diospolis	Diospolis [another ancient name for the modern-day city of Lod]		x	x
Ebron	Hebron	x	x	x
Egea	Aegean [Sea]			
Egiptium Mare	Egyptian Sea	x	x	x
Egiptus Inferior, hanc et deltam Egipti vocant.	Lower Egypt, [they] call [it] this and the delta of Egypt.	x	x	x
Egiptus Superior	Upper Egypt	x	x	x
Eleutheoropolis	Eleutheropolis			x
Emmaus, qui nunc Nicopolis dicitur.	Emmaus, which is now called Nicopolis.		x	x
Endor	Endor [modern-day Ein Dor]		x	x
Engadi	Ein Gedi	x	x	x
Esron	Azor or Asor [possibly modern-day Tel Hazor]			x
Ethiopes	Ethiopians	x	x	x
Ethiopes Egiptii	Egyptian Ethiopians	x	x	x

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Eufrates fluvius, Mesopot(amia).	Euphrates River, in Mesopotamia.	x	x	x
Euxinus Pontus	Black Sea			
Farus altimissima	Highest lighthouse			
Fenicia	Phoenicia	x		x
Fison vel Ganges	Pishon or Ganges [River]	x	x	x
Gabao	Gibeon			x
Galgalis vel Golgol	Gilgal	x	x	x
Galilea Inferior	Lower Galilee	x	x	x
Galilea Superior	Upper Galilee	x	x	x
Gargala Fluvius	Gargala River			
Gaza	Gaza	x	x	x
Genesareth castellum	Chinnereth Castle [Fortified city], or Kinneret	x	x	x
Geth	Gath		x	x
Gnidos	Knidos			
Gorgoneu[m?] Insula	Island of Gorgoneum			
Heremus Scithi	Herremus, [monastery of] Scete or Scetis			
Heremus, hic Paulus et ceteri heremite.	Desert, here [were] Paul and other hermits.			
Hic sunt Massagete.	Here are the Massagetaens.			
Hic sunt Scitarum gentes.	Here are the Scythian people.	x		
Hircania Regio	Region of Hyrcania			
Hircania Silva	Hyrcanian Forest			
Iamnia	Yavne [also, Jabneh, Ibelin]			x
Icharos	Charos, or Caros [modern-day Icaria]			
Idumea, regio Sirie.	Edom, region of Syria.	x	x	x
India	India	x	x	x
India Egipti	Egyptian India	x	x	x
India Egiptie	Indian Egyptians	x	x	x
India Ethiopiee	Indian Ethiopians	x	x	x
Indus Fluvius	Indus River			

Normalized Transcription	English Translation	HQG	IHN	BHP
Ionicum	Ionian [Sea]	x		
Issicum	[Gulf of] Issus			
Jerico	Jericho		x	x
Jherusalem	Jerusalem	x	x	x
Joppe	Jaffa		x	x
Jor	Jor [River]	x		x
Jordanis	Jordan [River]	x	x	x
Laodicia	Laodicea		x	
Lebona	Lebona [modern-day Al Lubban]			x
Libanus	Lebanon			x
Lida	Lydda [another ancient name for the modern-day city of Lod]		x	
Madian	Madian or Midian	x		x
Magdallus	Magdala, Magdal, or Migdal		x	x
Mare Caspium	Caspian Sea			
Mare Galilee	Sea of Galilee	x	x	x
Mare Mortuum	Dead Sea	x		x
Media Maior	Greater Media			
Media Minor	Lesser Media			
Meroe Insula	Meroe Island [modern-day Island of Bagrawiya]			x
Mesopotamia Regio	Region of Mesopotamia	x	x	
Mitalene	Mytilene		x	
Moab	Moab	x	x	x
Modin	Modiin, Modi'in-Maccabim-Re'ut or Mevo Modi'im.			x
Mons Armenie, ubi resedit archa.	Armenian Mountains, where [Noah's] Ark settled.		x	x
Mons Carmelus	Mount Carmel	x	x	x
Mons Catapathmon	Mount Catabathmos or Catabathmus			
Mons Caucasus	Mount Caucasus			
Mons Effraim	Mount Ephraim		x	x
Mons Ermon	Mount Hermon		x	x

Normalized Transcription	English Translation	HQG	IHN	BHP
Mons Galaad	Mount Gilead	x	x	x
Mons Nitrie	Mount Nitrius			
Mons Oliveti	Mount of Olives			x
Mons Sina	Mount Sinai			x
Mons Sion	Mount Zion		x	x
Mons Tabor	Mount Tabor		x	x
Mons Taurus	Mount Taurus	x		
Montes Gelboe	Mount Gilboa		x	x
Montes Libani	Mount Lebanon	x		x
Moysileon Emporium	Mosylon Emporium			
Naim	Nain or Nein			x
Nazareth	Nazareth		x	x
Neapolis	Neapolis [modern-day Nablus]	x		x
Nilus hic oritur, qui e[s]t Geon dicitur.	The Nile originates here, which is called Gihon.		x	x
Nuchul	Nuchul River			
Nuchul Fluvius, ab occidente veniens.	Nuchul River, coming from the west.			
Oraculum Solis et Lune	Oracle of the Sun and the Moon			
Pamfilicum	Pamphylia		x	
Parthia	Parthia		x	
Pathmos	Patmos			
Persia	Persia	x		
Persicus Sinus	Persian Gulf	x		
Pharan	[Desert or Wilderness of] Paran	x	x	x
Phenicum Mare	Phoenician Sea	x		x
Phiairoth	Pi-Hahiroth			
Pontus	Pontus			
Propontis	Propontis [also known as the Sea of Marmara]			
Ramesse, civitas et provincia.	Rameses, city and province.	x	x	x
Raphaim	Raphia [modern-day Rafah]	x	x	x

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Rinocorua civitas et fluvius, terminus Palestine et Egipti.	Rhinocorura, city and river; border of Palestine and Egypt [modern-day el Arish].	x	x	x
Rodus insula, in qua est colussus	Island of Rhodes, on which [is the Colossus ?]	x	x	
Rubrum Mare	Red Sea	x		x
Salem	Salem [also known as Salumias and Tell er Radgha]	x		x
Samaria	Samaria	x	x	x
Samos	Samos			
Samotrachia	Samothrace		x	
Sarepta	Sarepta [also known as Zarephath]		x	x
Scitopolis	Schythopolis [modern-day Beit She'an]			x
Seleucia	Seleucia	x	x	
Sicima	Sichem or Shecham	x	x	x
Sidon	Sidon	x	x	x
Silo	Shiloh		x	x
Siria	Syria	x	x	x
Socoth	Sukkot	x	x	x
Tenedos	Tenedos [modern-day Island of Bozcaada]			
Terra Gessen	Land of Goshen	x	x	x
Thebe, hinc Mauricii legio.	Thebes, whence [came] the legion of [Saint] Maurice.		x	
Tholomaida	Ptolomais [modern-day Acre/Akko]			x
Tholumaida	Ptolomais [in Cyrenaica]		x	
Tiberiadis	Tiberias			x
Tigris Fluvius	Tigris River		x	x
Tirus	Tyre		x	x

Normalized Transcription	**English Translation**	**HQG**	**IHN**	**BHP**
Torrens Cison	The torrential Qishon or Kishon [River]			x
Tripolis	Tripoli	x		
Turris David	Tower of David			
Vallis Josaphat	Valley of Josaphat			x

Normalized transcription and English translations from *Virtual Mappa 2.0: Tournai Map of Palestine*: https://sims2.digitalmappa.org/36, forthcoming. Translations: *Book of Hebrew Questions on Genesis* (HQG): Hayward, C. T. R. *Saint Jerome's Hebrew Questions on Genesis*; *Interpretation of Hebrew Names* (IHN): Lagarde, *Jerome: S. Hieronymi Presbyteri Opera, Pars*; Book of Hebrew Places (BHP): Steven and Safrai. *Onomasticon: The Place Names of Divine Scripture Including the Latin Edition of Jerome* and Freeman-Grenville, *The Onomasticon By Eusebius of Caesarea*.

APPENDIX 2: FIGURES

Figure 1
The Tournai Map of Asia, 12th century, BL Add. MS 10049, fol. 64r, 320 x 250 mm. © The British Library Board.

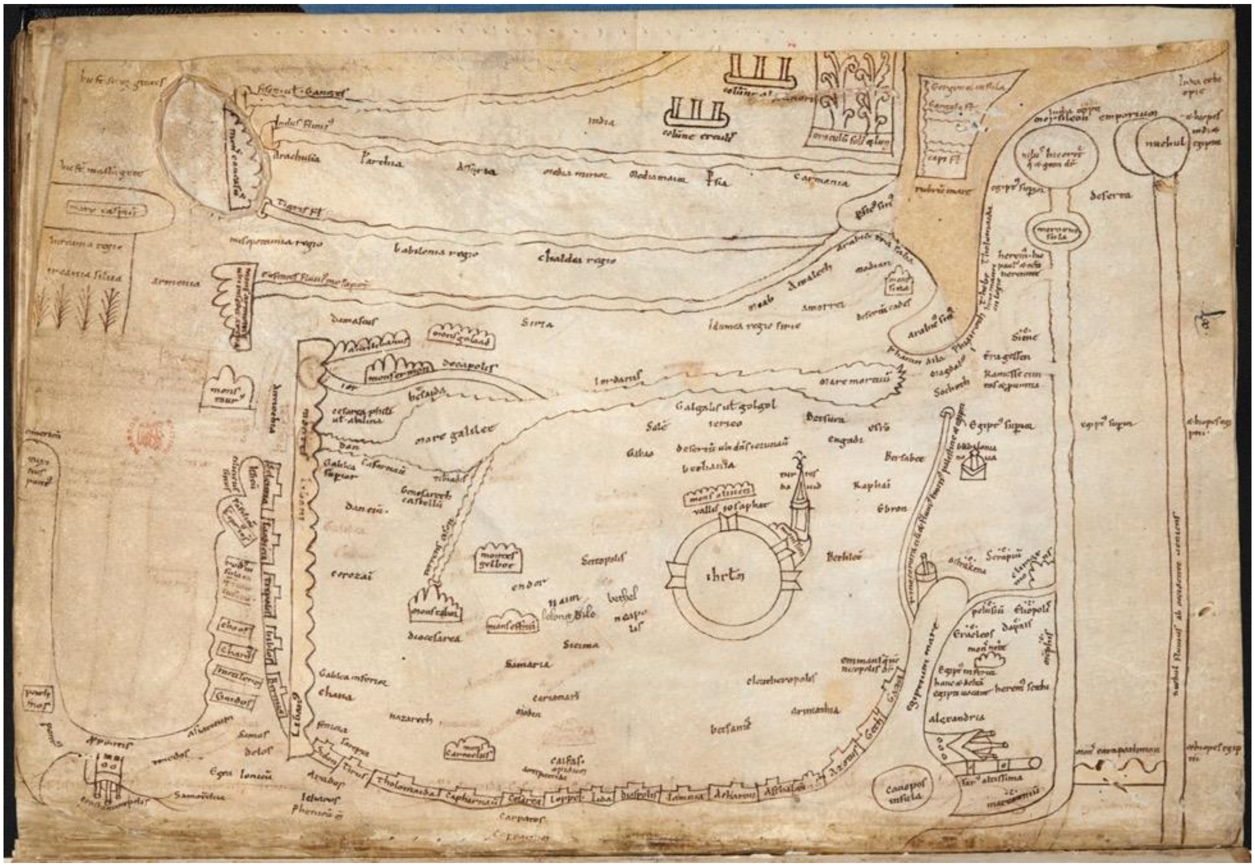


Figure 2
The Tournai Map of Palestine, 12th century, BL Add. MS 10049, fol. 64v, 250 x 320 mm. © The British Library Board.

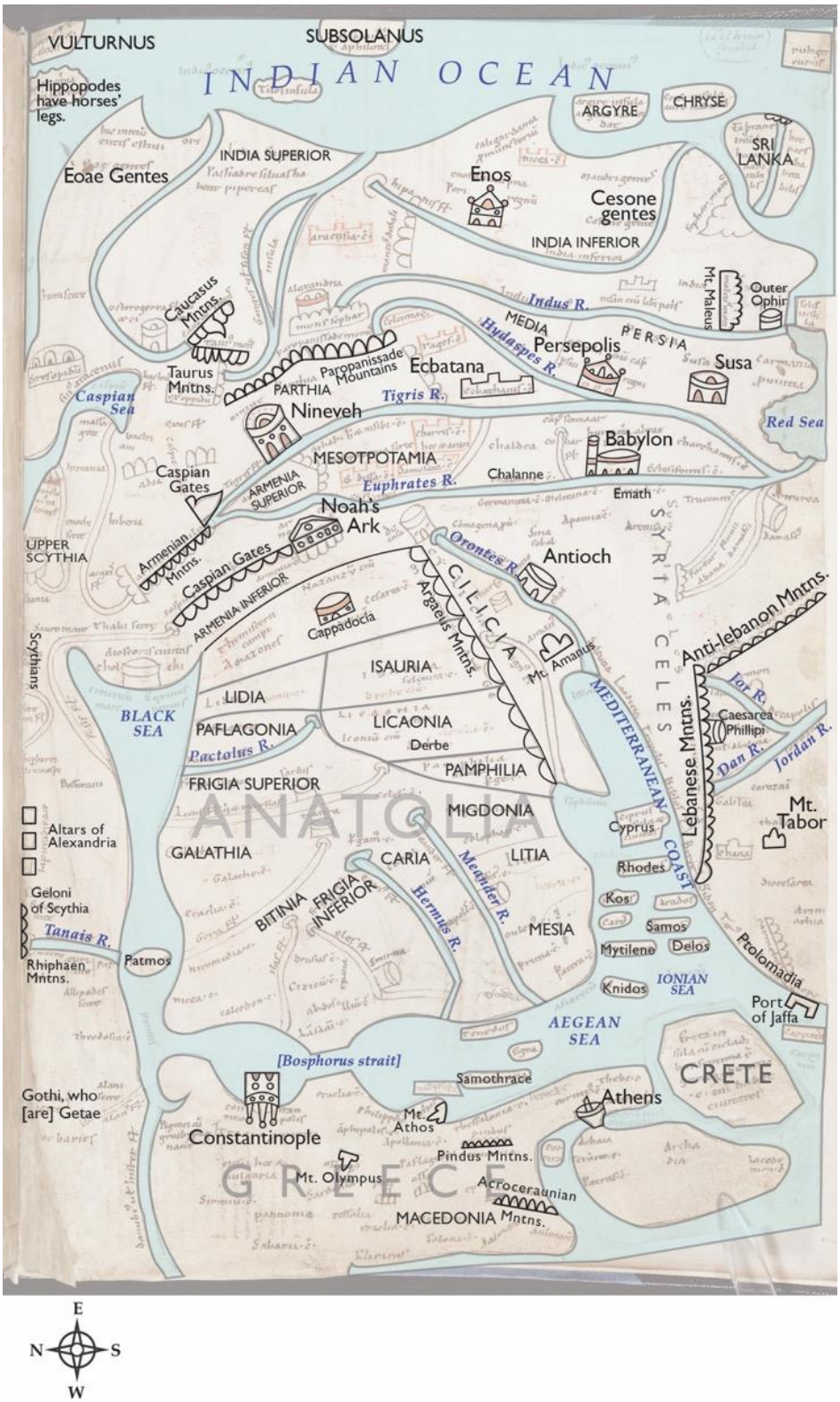


Figure 3
English translations overlaid on Tournai Map of Asia. Map: © The British Library Board; images by author.

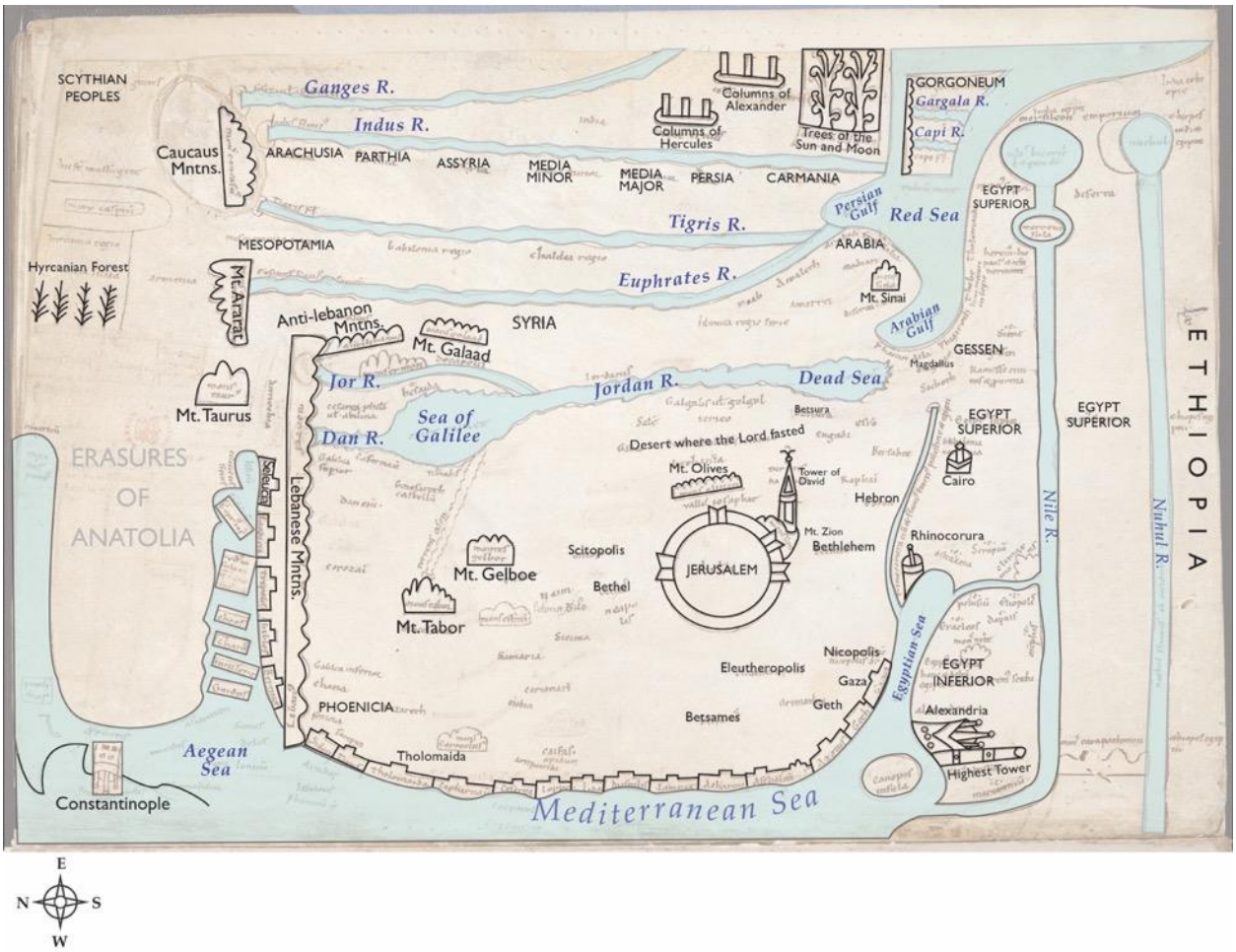


Figure 4
English translations overlaid on Tournai Map of Palestine. Map: © The British Library Board; images by author.

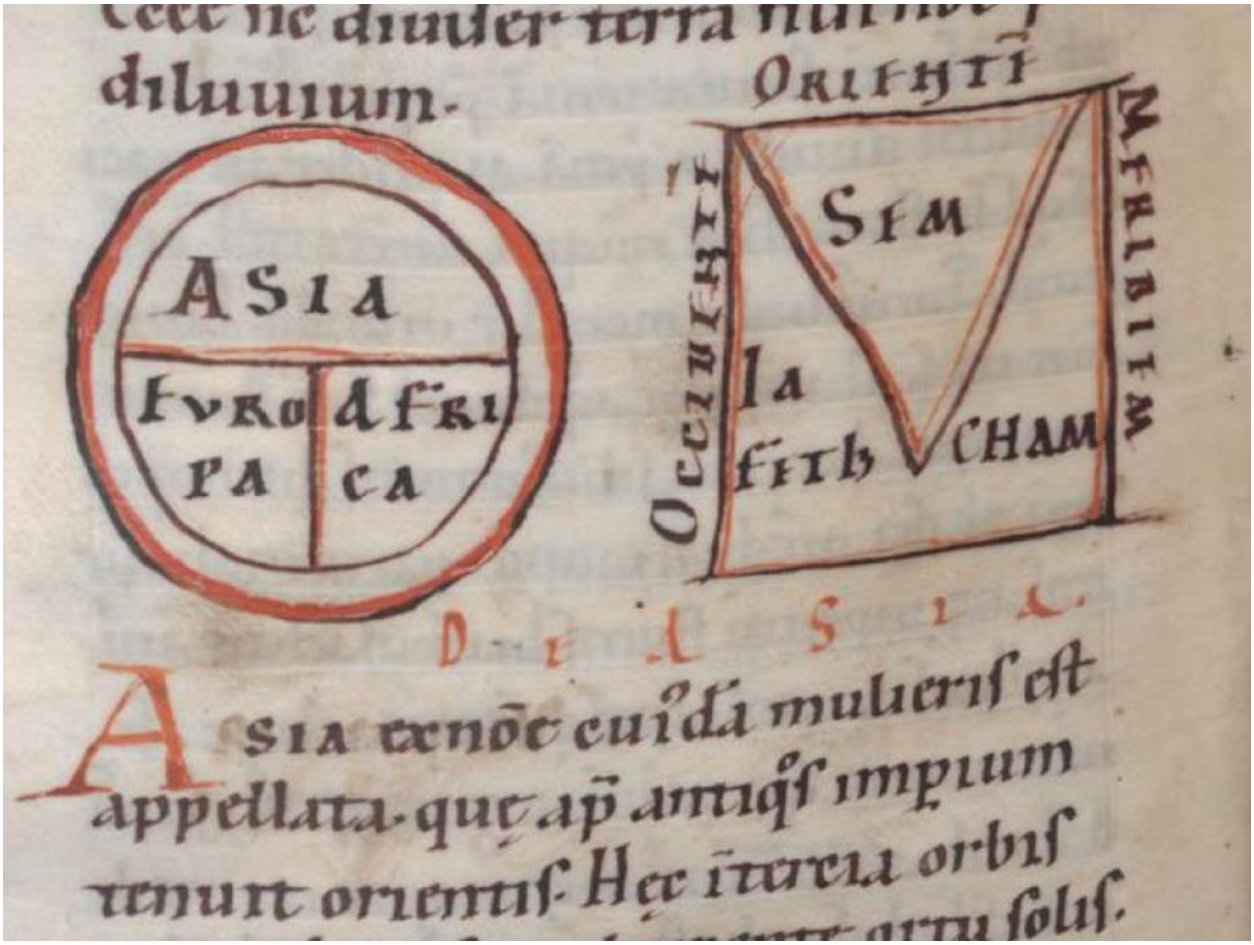


Figure 5
Isidorian T-O map (left), 1150-1199, Vienna, Österreichische Nationalbibliothek, Cod. 67, fol. 117v. Source: https://digital.onb.ac.at/RepViewer/viewer.faces?doc=DTL_5059920.

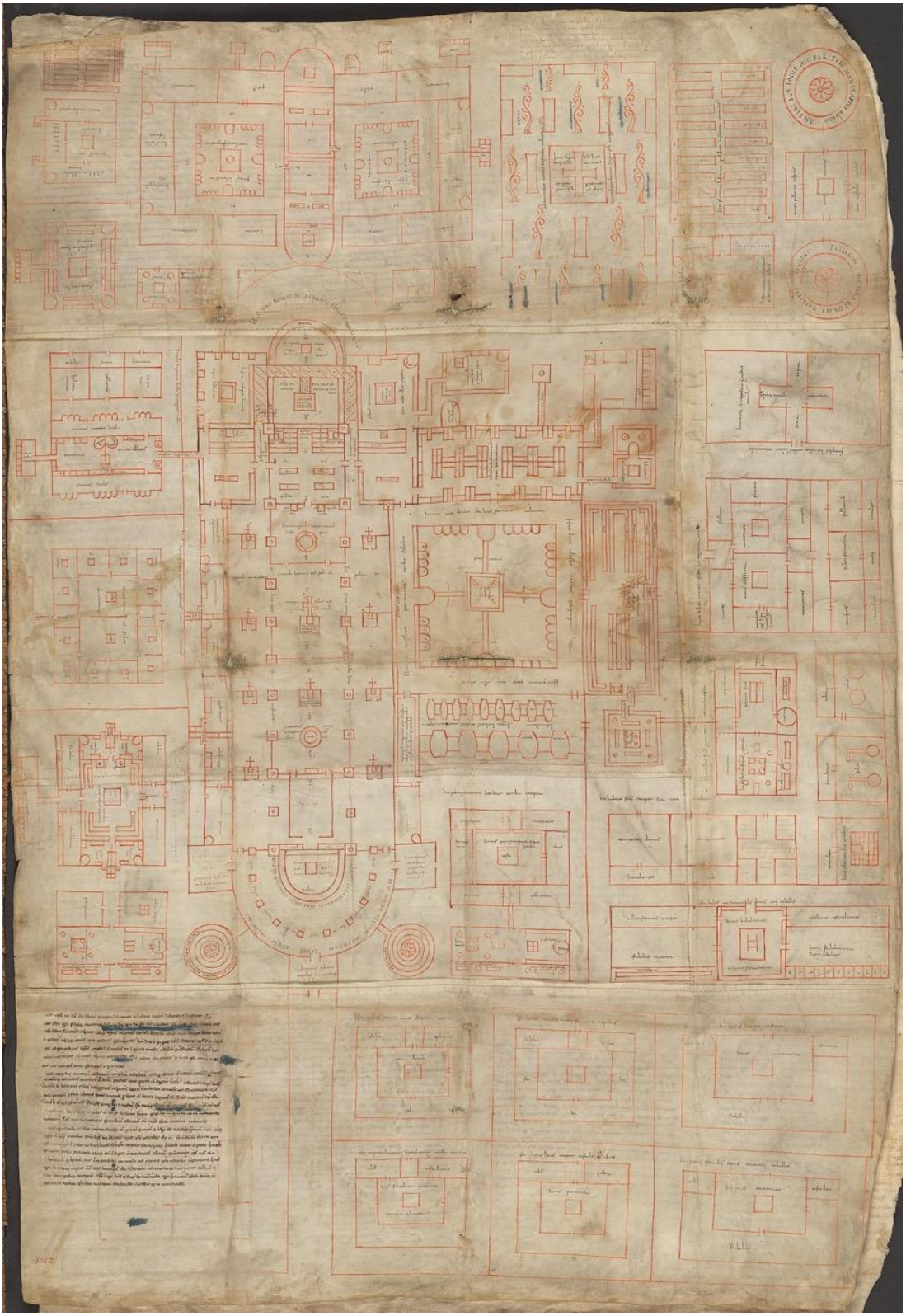


Figure 6
Plan of Saint Gall, Codex Sangallensis 1092, 102 x 76 cm. Source: https://www.e-codices.unifr.ch/en/list/one/csg/1092.

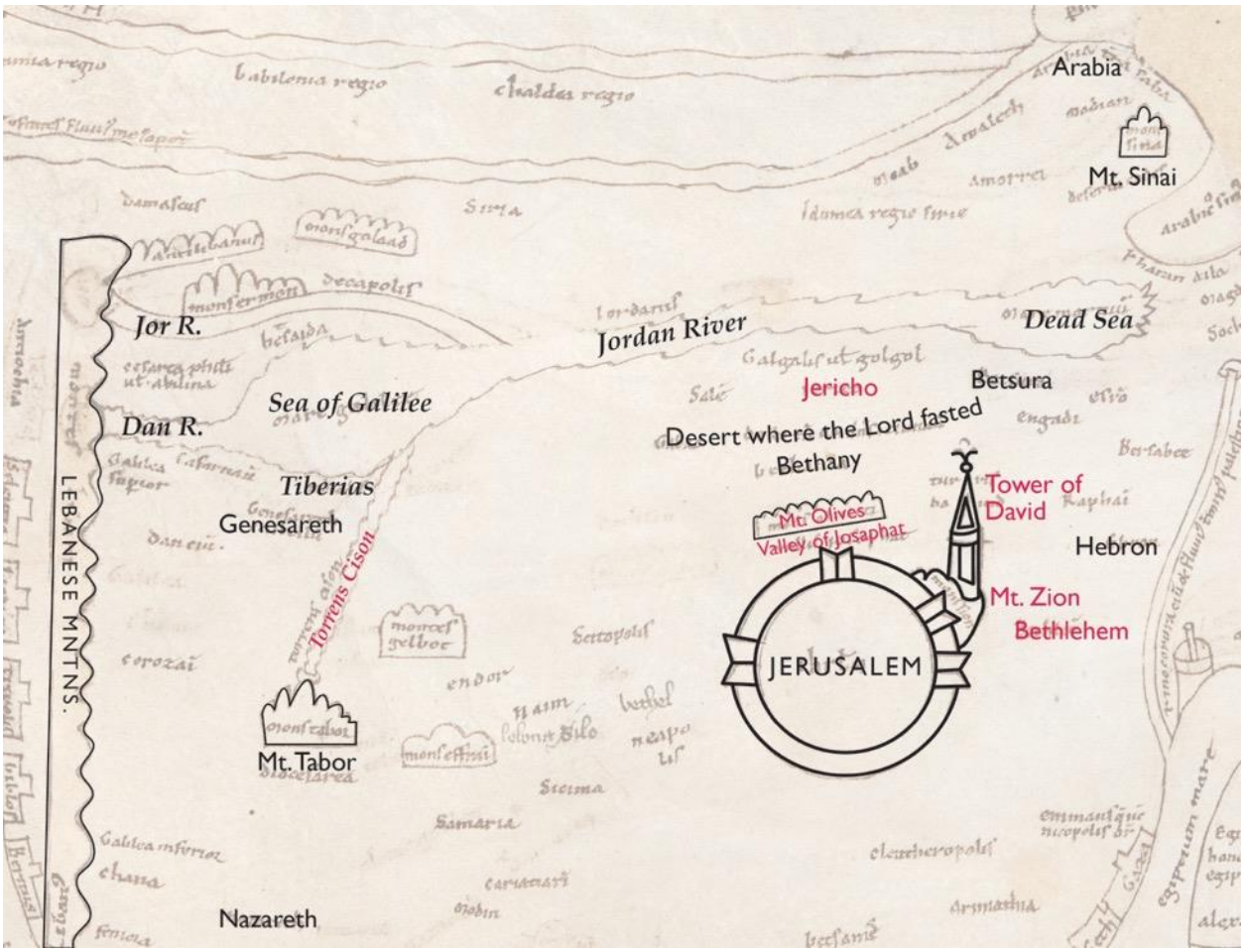


Figure 7
Detail of Tournai map of Palestine, overlaid with places on Brussels, Bibliothèque Royale, MS 9823, fol. 157r and Koninklijke Bibliotheek, The Hague, MS 76, fol. 5, folio size: 25.5 x16.5 cm, image by author. The Brussels map connects closer to the map of Palestine because its extent is wider. The underlined places distinguish places indicated on the Hague map. Map: © The British Library Board; image by author.

Figure 8
Koninklijke Bibliotheek, The Hague, MS 76, fol. 5, folio size: 25.5 x16.5 cm. Source: https://manuscripts.kb.nl/show/images/76+F+5.

Figure 9
Psalter World and Psalter List Maps, BL Add. MS 28681, fol. 9r-v, map diameters: 9cm. Maps: © The British Library Board; images by author.

Figure 10
Hereford World Map, c. 1300, Hereford Cathedral, 1.6 x 2.3m. Image is public domain: https://en.wikipedia.org/wiki/Hereford_Mappa_Mundi#/media/File:Hereford-Karte.jpg.

Figure 11
Ebstorf World Map, reproduction (original c. 1300, 3m diameter), Kloster Ebstorf. Image is public domain:
https://en.wikipedia.org/wiki/Ebstorf_Map#/media/File:Ebstorfer_Weltkarte_2.jpg

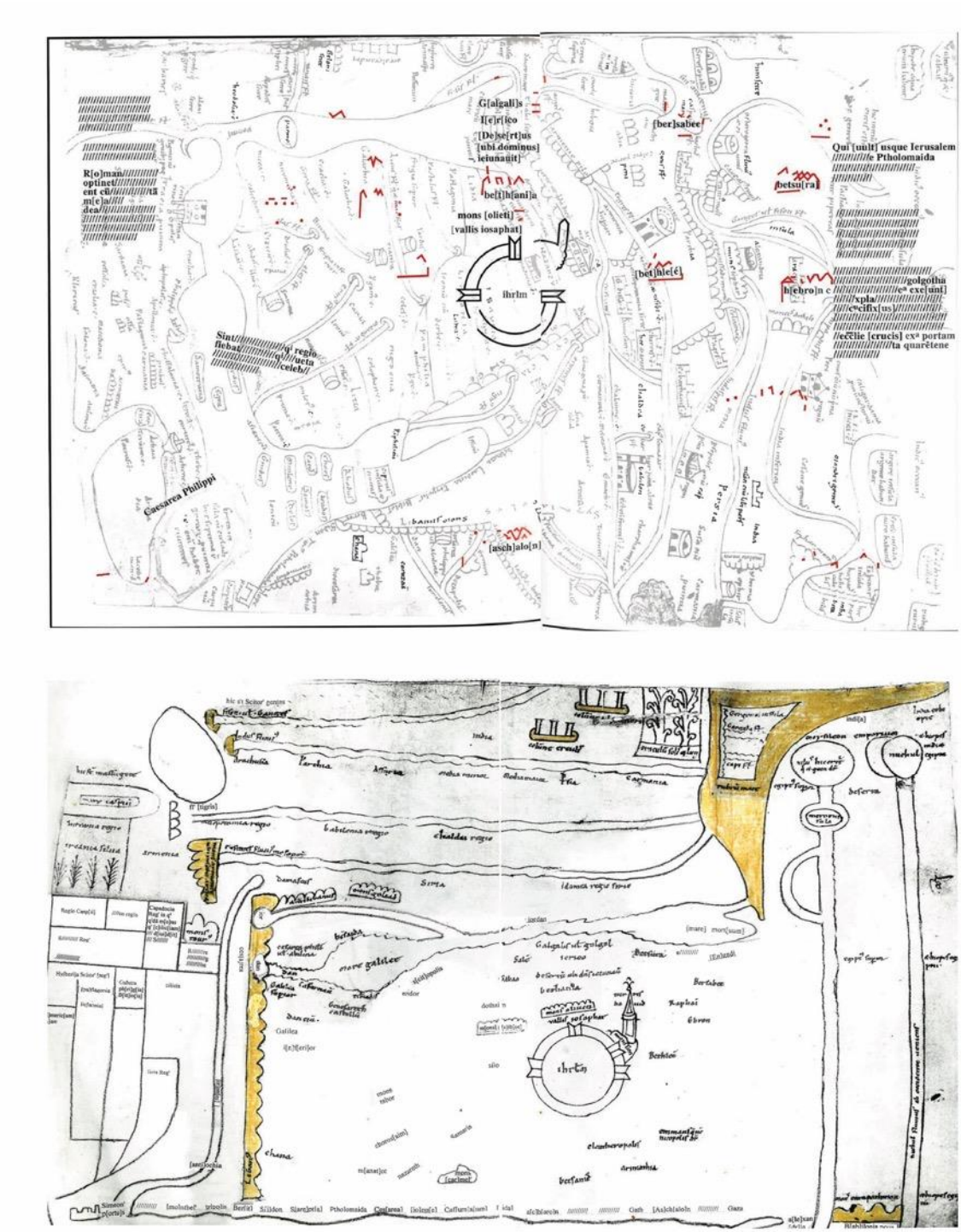
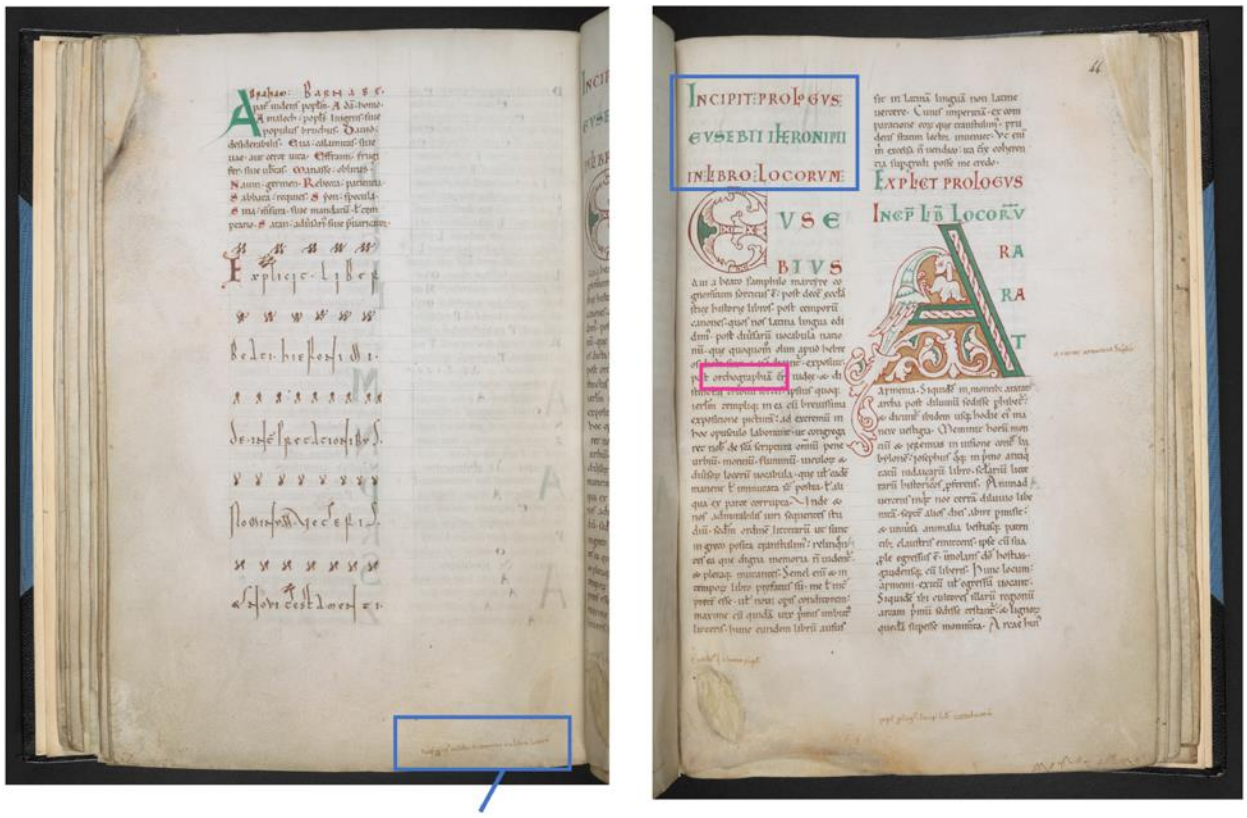


Figure 12
Paul Harvey's reconstructions of the erasures beneath the maps of Asia (top) and Palestine (bottom) from *Medieval Maps of the Holy Land*, (London: The British Library, 2012), 42-3 and 46-7.



Incip(it) p(ro)logus euſebii hieronmi in libro locoru(m)

Figure 13
The *Book of Hebrew Places* incipit, BL Add. MS 10049, his notes appear on fols. 43v-44r. Highlighted in pink: *orthographia(m)*. © The British Library Board; image by author.

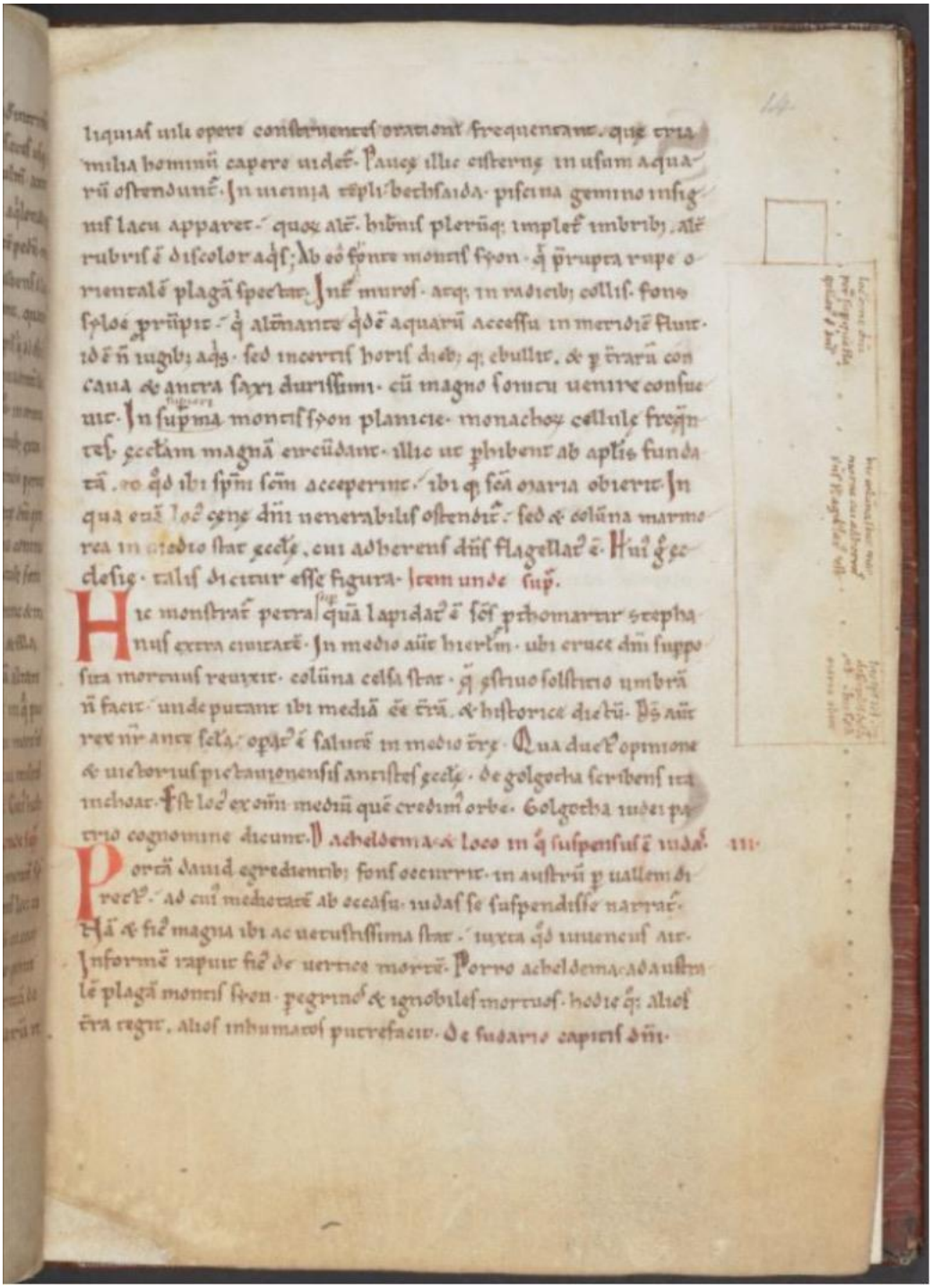


Figure 14
Church of the Dormition plan in the *De Locis Sanctis*, BL Add. MS 15219, fol. 14r. © The British Library Board.

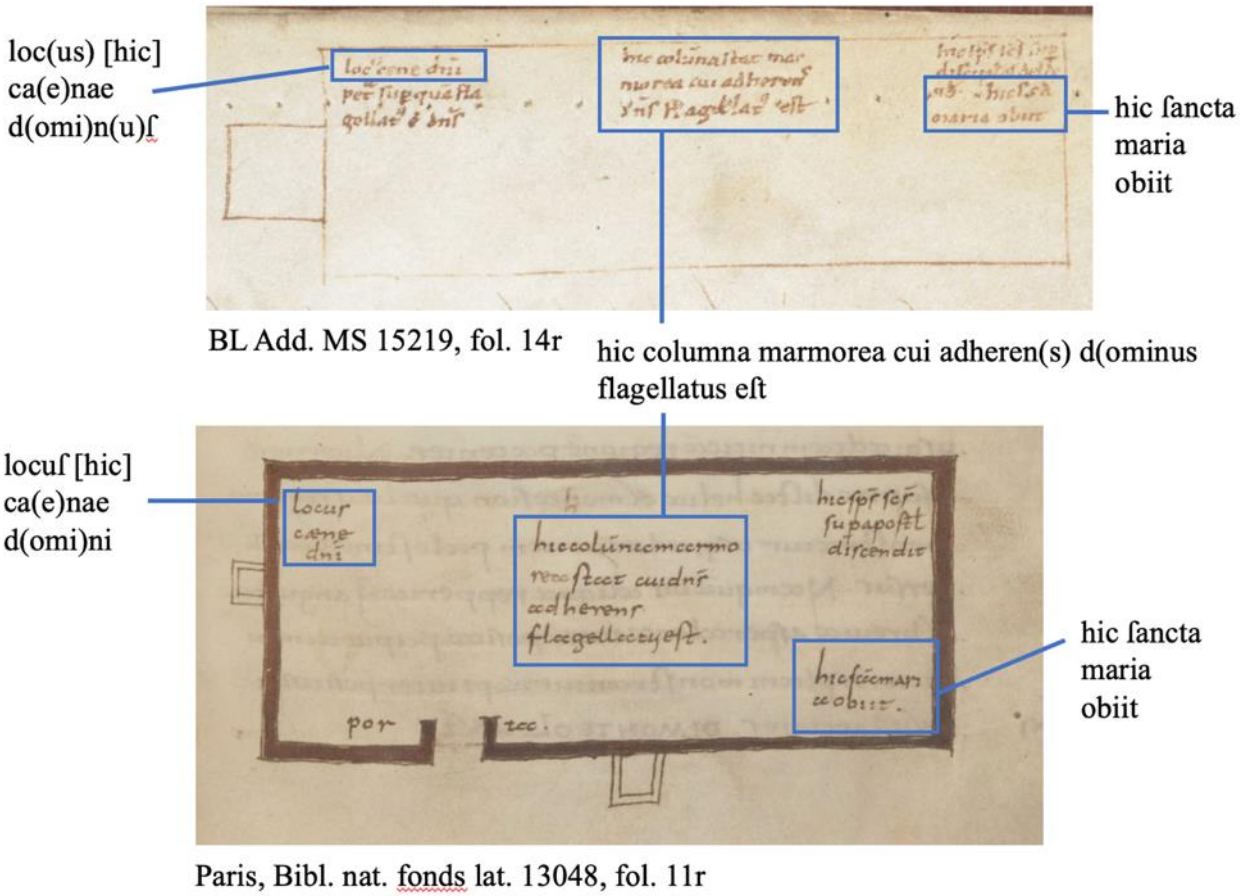


Figure 15
Church of the Dormition plan in the *De Locis Sanctis*. Top image: BL Add. MS 15219, fol. 14r, © The British Library Board; Bottom image: Paris, Bibl. nat. fonds lat. 13048, fol. 11r. Source: gallica.bnf.fr / BnF.

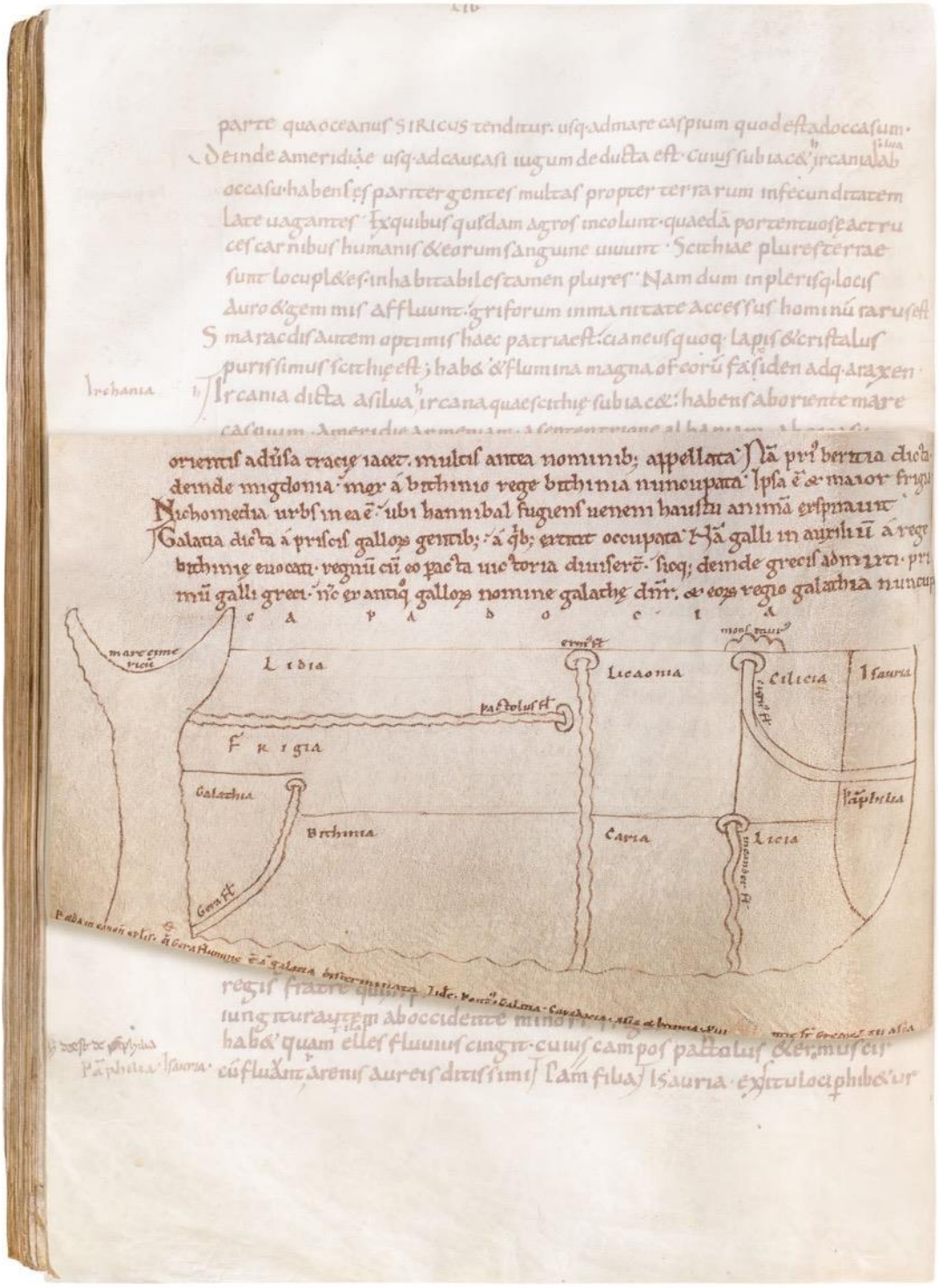


Figure 16
Tournai map of Cappadocia, loose-leaf folio from a century copy of Isidore of Seville's *Etymologiae*. Image Courtesy Dr. Jörn Günther Rare Books, Basel (Switzerland).

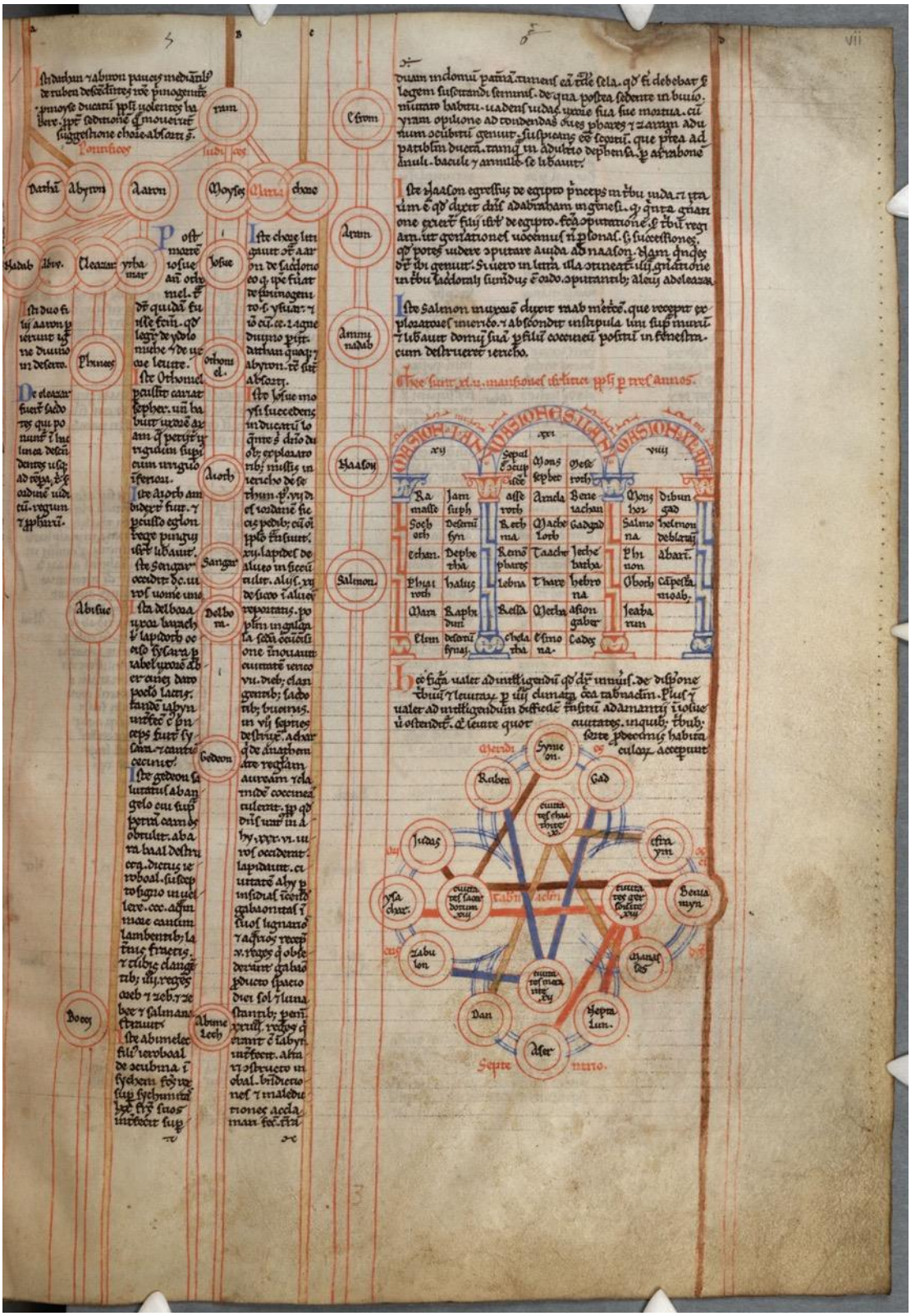


Figure 17
Peter of Poitiers, *Historia in Genealogia Christi*, Cambridge Corpus Christi College, MS029, fol. Viir. Image courtesy of The Parker Library, Corpus Christi College, Cambridge.

Figure 18
First and last folios of Cambridge, Corpus Christi College, MS 026: Matthew Paris OSB, Chronica maiora I; Left image: fol. 1r, right image: fol.vr. Images courtesy of The Parker Library, Corpus Christi College, Cambridge.

Figure 19
Arrow indicating Mediterranean coastline, pink highlights signal the toponyms mentioned in the *Book of Hebrew Places*; Left: Tournai Map of Asia; Right: Tournai Map of Palestine. Maps: © The British Library Board; image by author. A close version of this table was published in my article, see Brott, "Meet Your Maker."

Figure 20
Place names and physical features repeated on each map. Left: Tournai Map of Asia; Right: Tournai Map of Palestine. Maps: © The British Library Board; image by author.

Figure 21
Sawley Map, CCCC 66, Parker Library, fol. P.2, 295 x 205 mm. Image is public domain: https://en.wikipedia.org/wiki/Sawley_map#/media/File:Imago_Mundi_de_Honorius_of_Autum_(editado_por_Henry_of_Mainz)_1190.PNG.

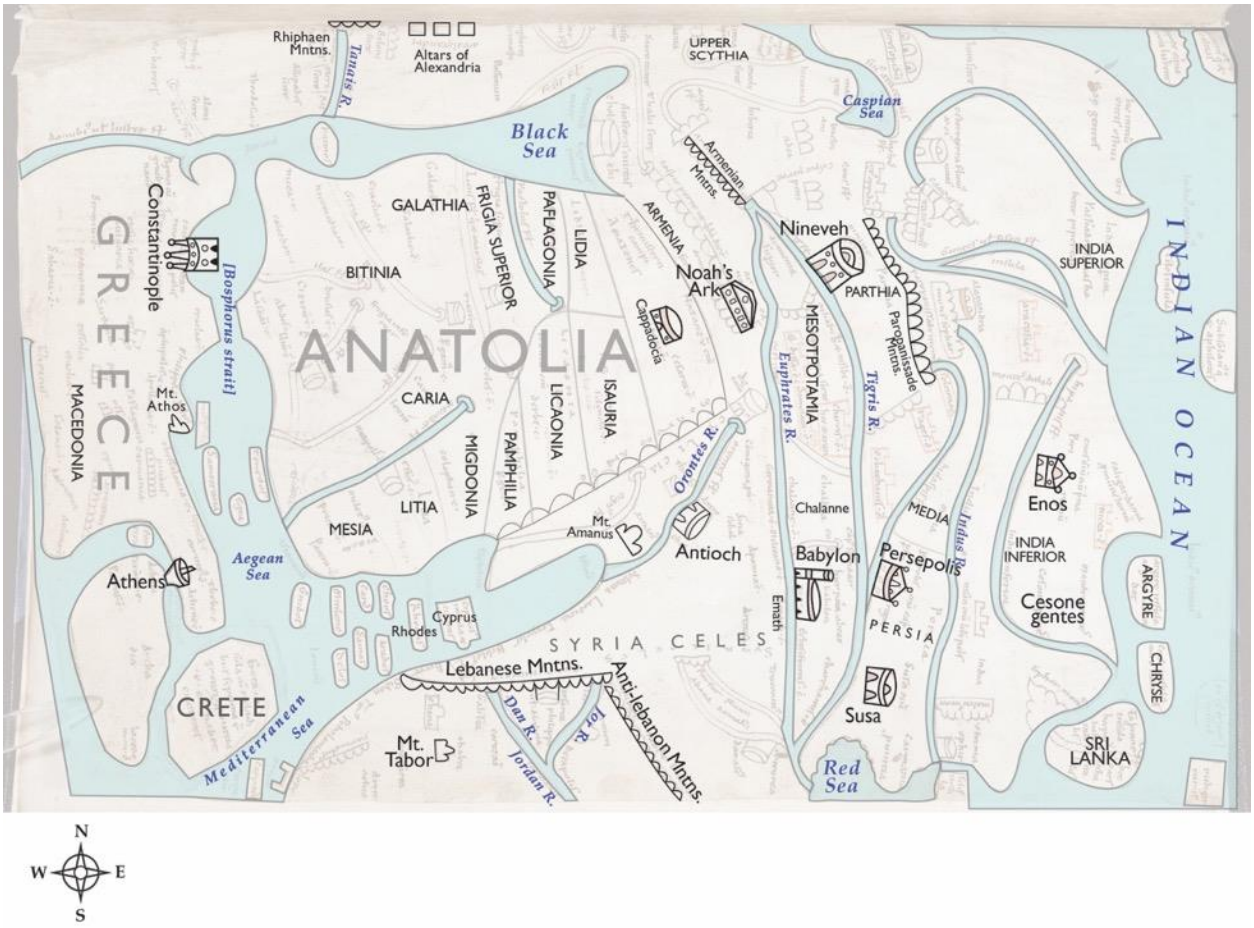


Figure 22
Tournai Map of Asia, north oriented. Map: © The British Library Board; image by author.

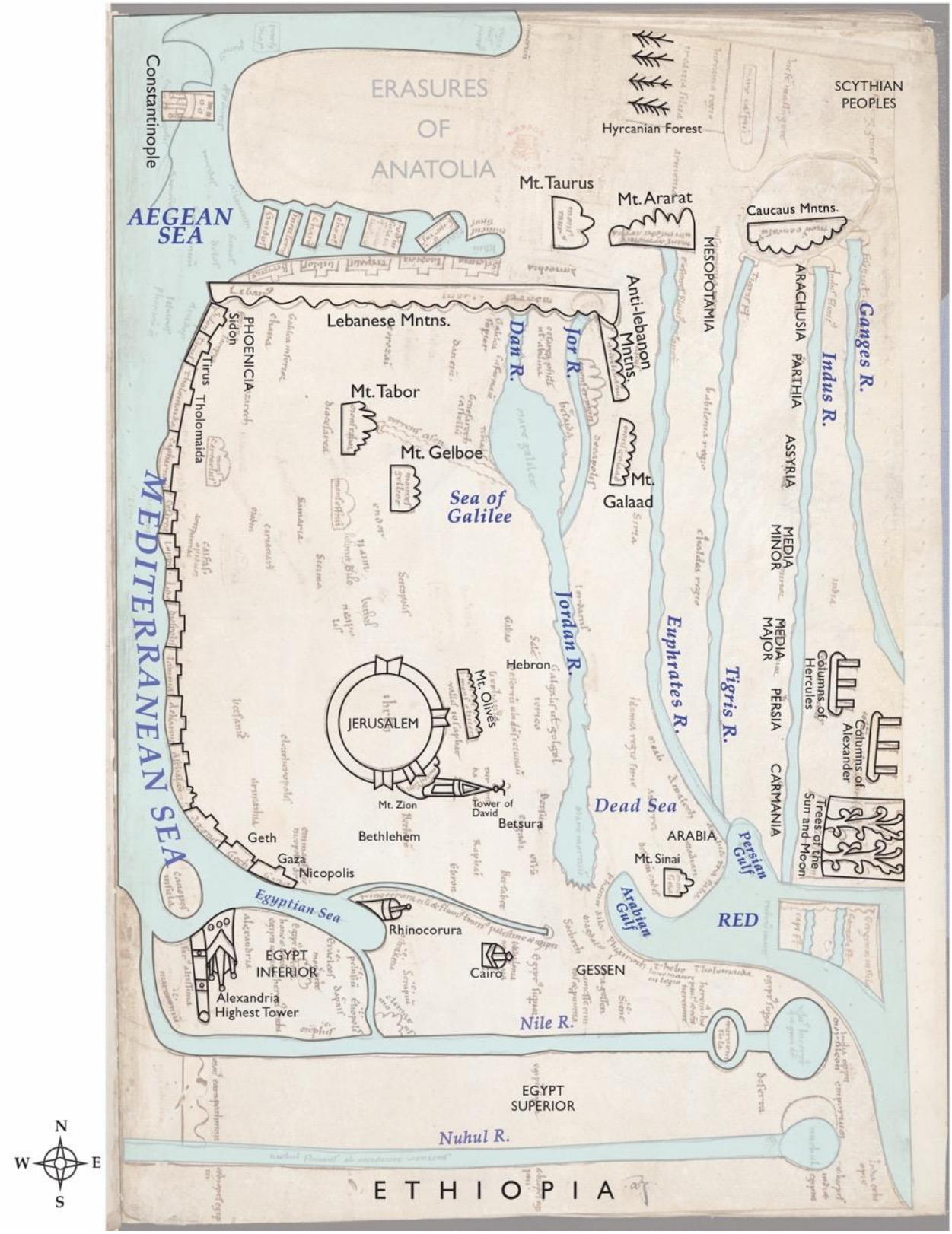


Figure 23
Tournai Map of Palestine, north oriented. Map: © The British Library Board; image by author.

Figure 24
Satellite map of area depicted on Tournai Map of Asia; image by author.

Figure 25
Satellite map of area depicted on Tournai Map of Palestine; image by author.

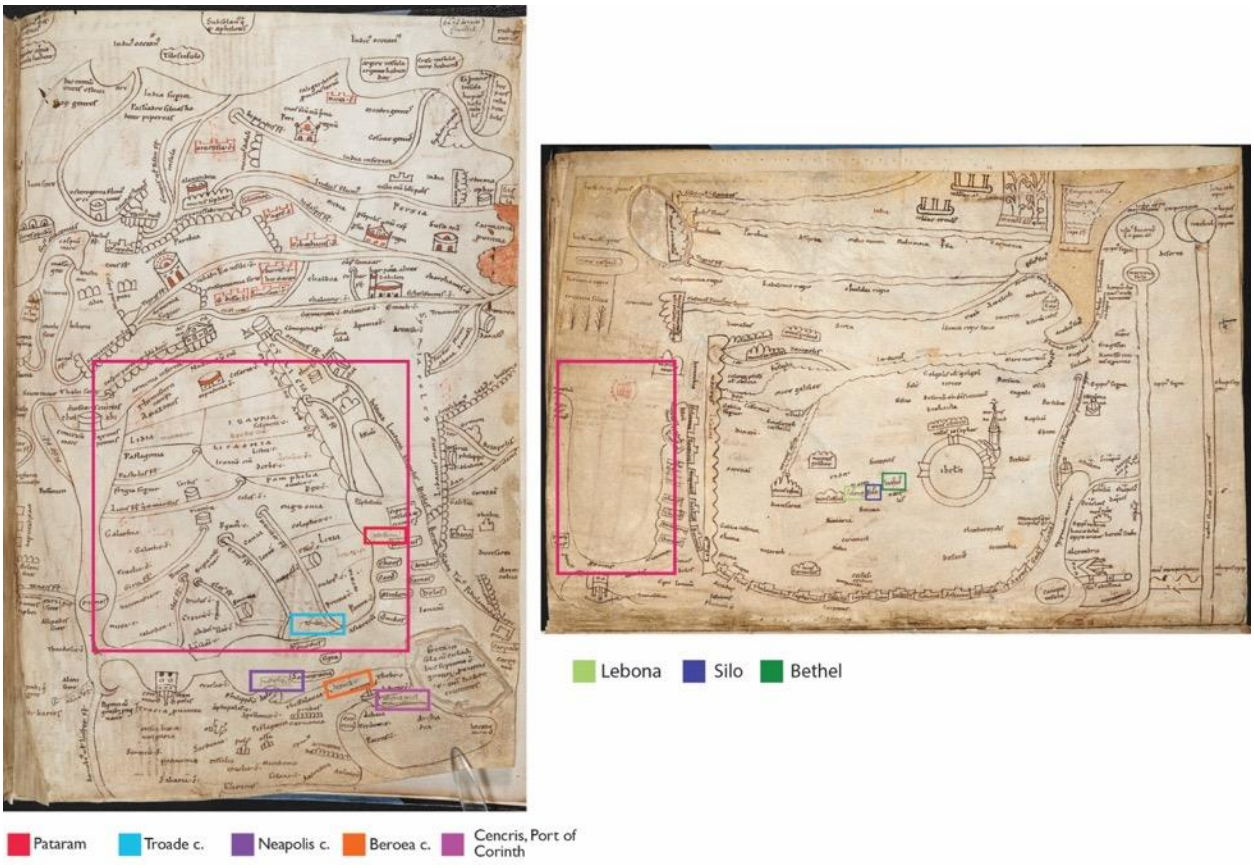


Figure 26
Left image: Tournai Map of Asia, modern-day turkey highlighted, along with place names that were added after the 12th century; Right image: Tournai Map of Palestine, erasure of modern-day Turkey highlighted, along with place names that were added after the 12th century. Maps: © The British Library Board; image by author.

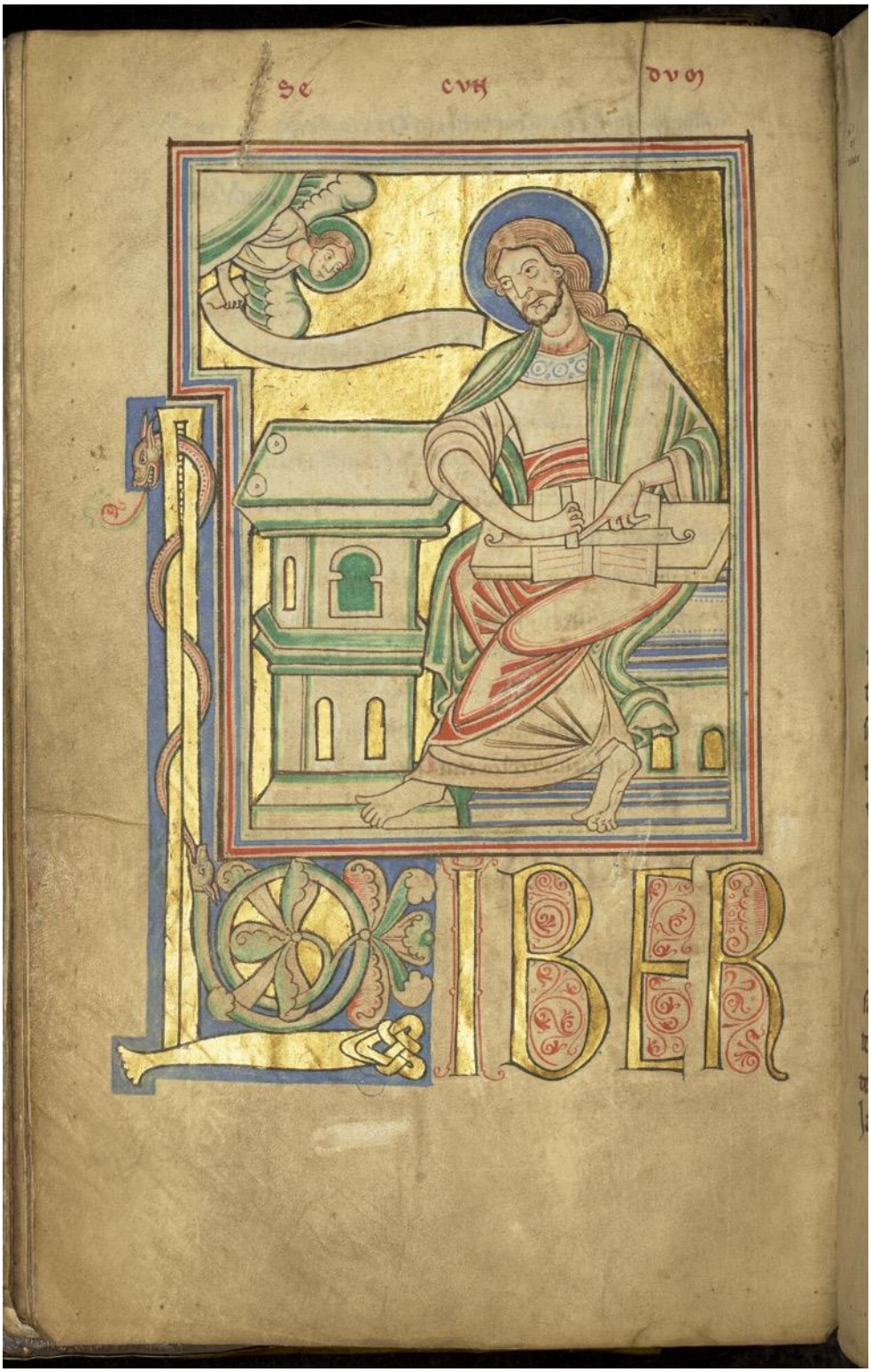


Figure 27
St. Matthew scoring lines on an open bifolio, Dinant Gospels, 12th century, Manchester, John Rylands University Library, Rylands Latin Ms. 11, f. 15v. Image provided by The John Rylands Research Institute and Library, The University of Manchester.

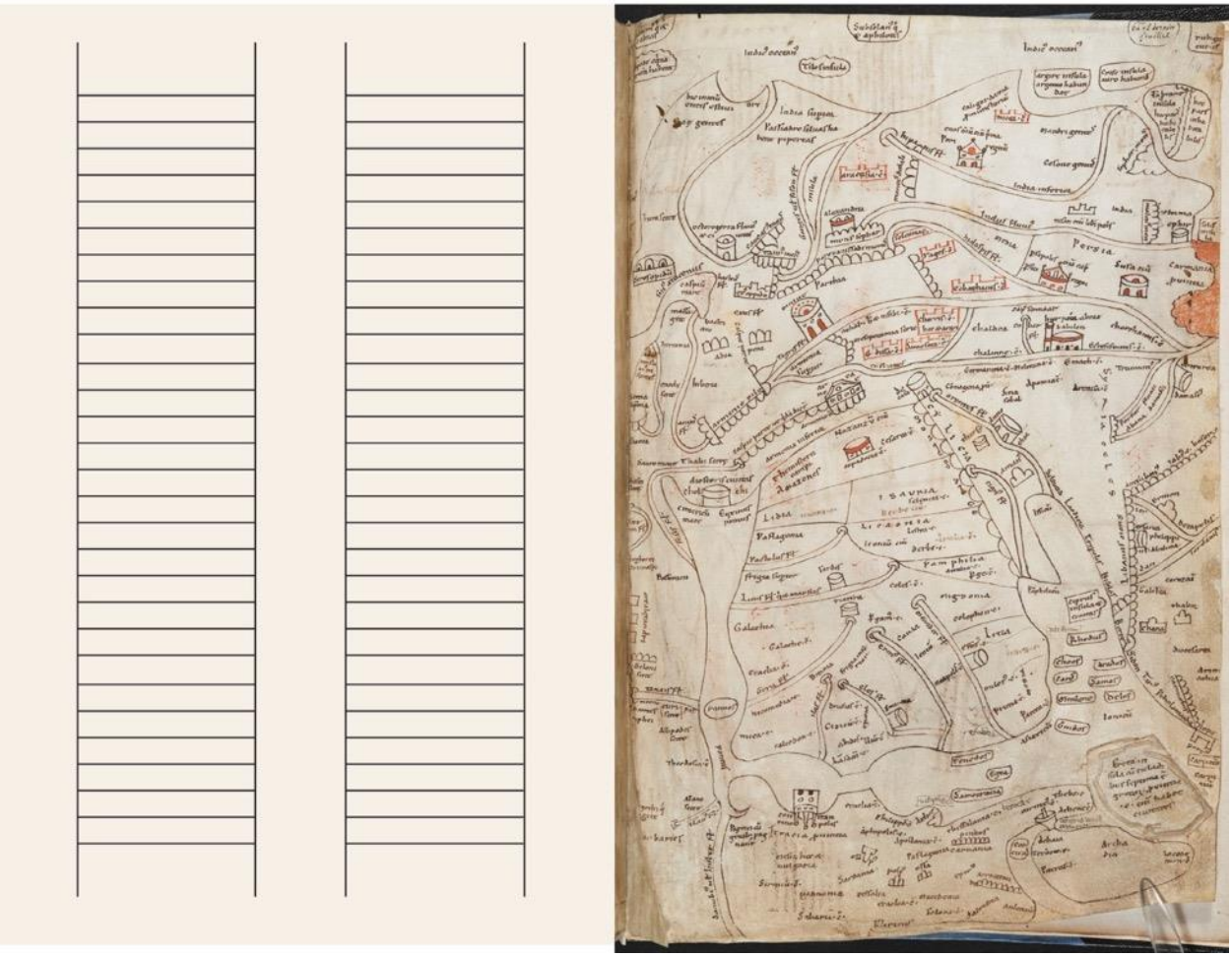


Figure 28
Example of the map folio as an open bifolio; Left: Ruled page, folio within the *Book of Hebrew Places*, fol. 60v; Right: Tournai Map of Asia, fol. 64r. Map: © The British Library Board; image by author.

Figure 29
Left image: *Interpretations of Hebrew Names* incipit page detail, fol. 22v; Right image: Tournai Map of Asia detail, fol. 64r. © The British Library Board.

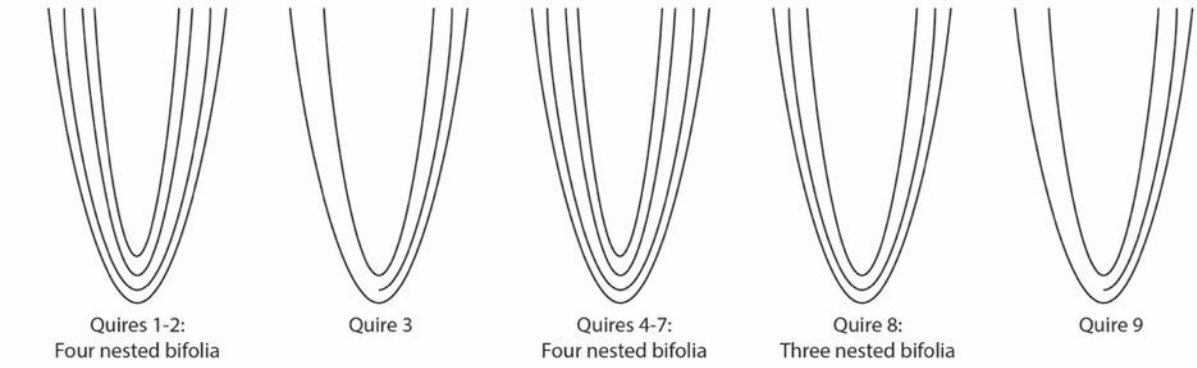


Figure 30
Quire structure, Tournai Map Manuscript, BL Add. MS 10049; image by author.

Figure 31
Book of Hebrew Questions on Genesis incipit, BL Add. MS 10049, fol. 2r. © The British Library Board; image by author. His notes for the remaining incipit text would have likely appeared on folio 1v, but it has incurred considerable damage.

Figure 32
Interpretations of Hebrew Names incipit, BL Add. MS 10049, folio 22v. © The British Library Board; image by author.

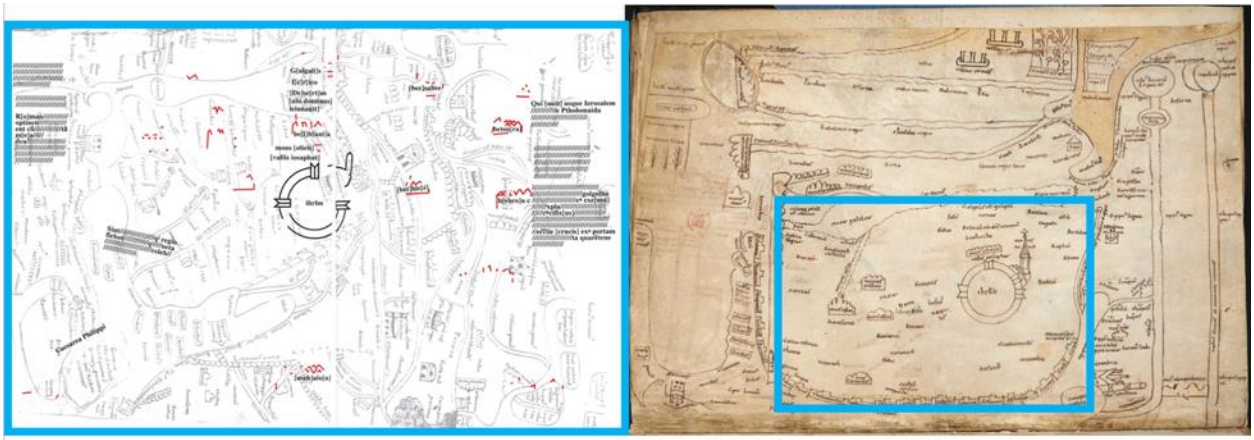


Figure 33
Left image: First iteration of Tournai Map of Palestine, now beneath Tournai Map of Asia (fol. 64r), from Harvey, *Medieval Maps of the Holy Land*, (London: The British Library, 2012), 42-43; Right image: Extent of original Palestine map overlaid on current Tournai Map of Palestine (fol. 64v), map: © The British Library Board; image by author.

Figure 34
Aggregate sum of place names on the Tournai Maps of Asia (left image) and Tournai Map of Palestine (right image) that are mentioned in the manuscript. Maps: © The British Library Board; image by author. A close version of this table was published in my article, see Brott, "Meet Your Maker."

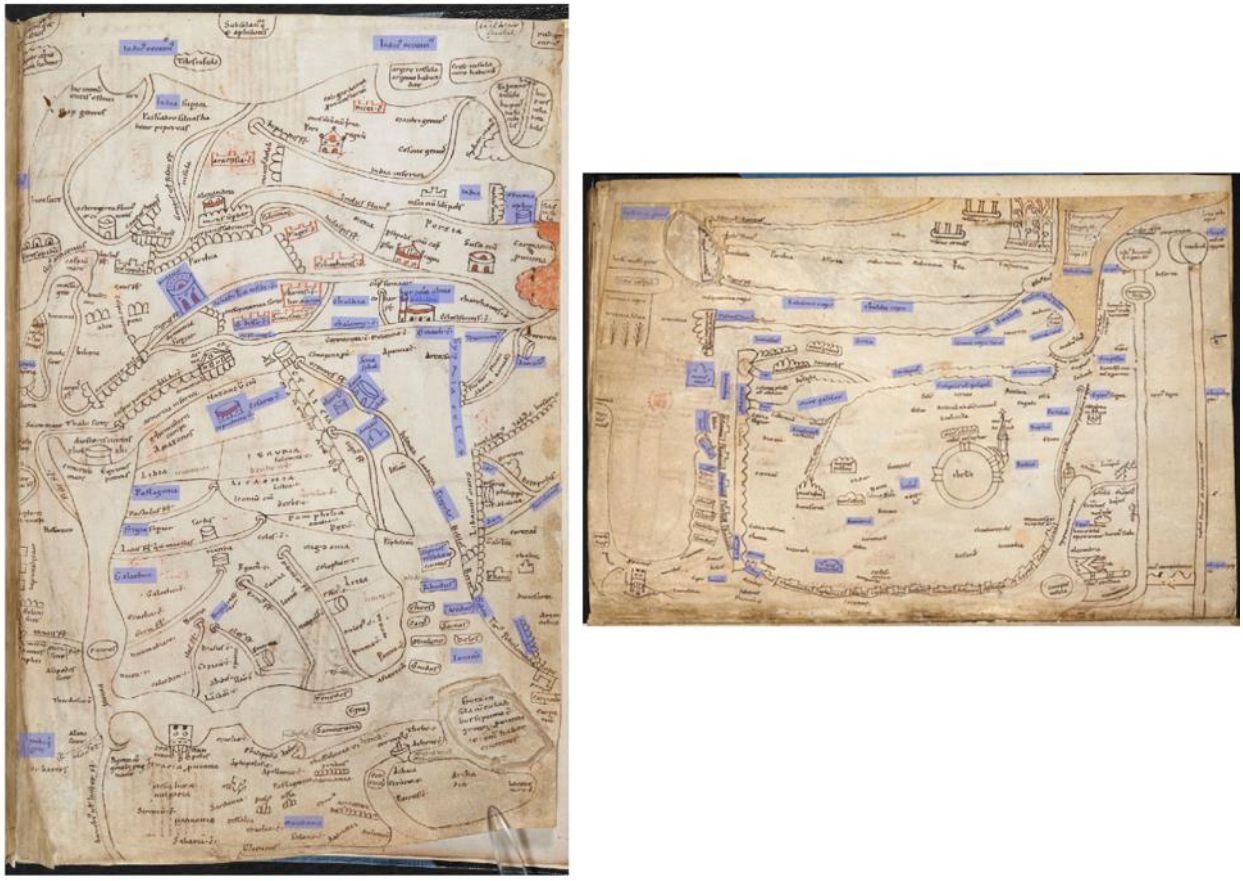


Figure 35
Place names on the Tournai Maps of Asia (left image) and Tournai Map of Palestine (right image) that are mentioned the *Book of Hebrew Questions on Genesis*. Map: © The British Library Board; image by author.

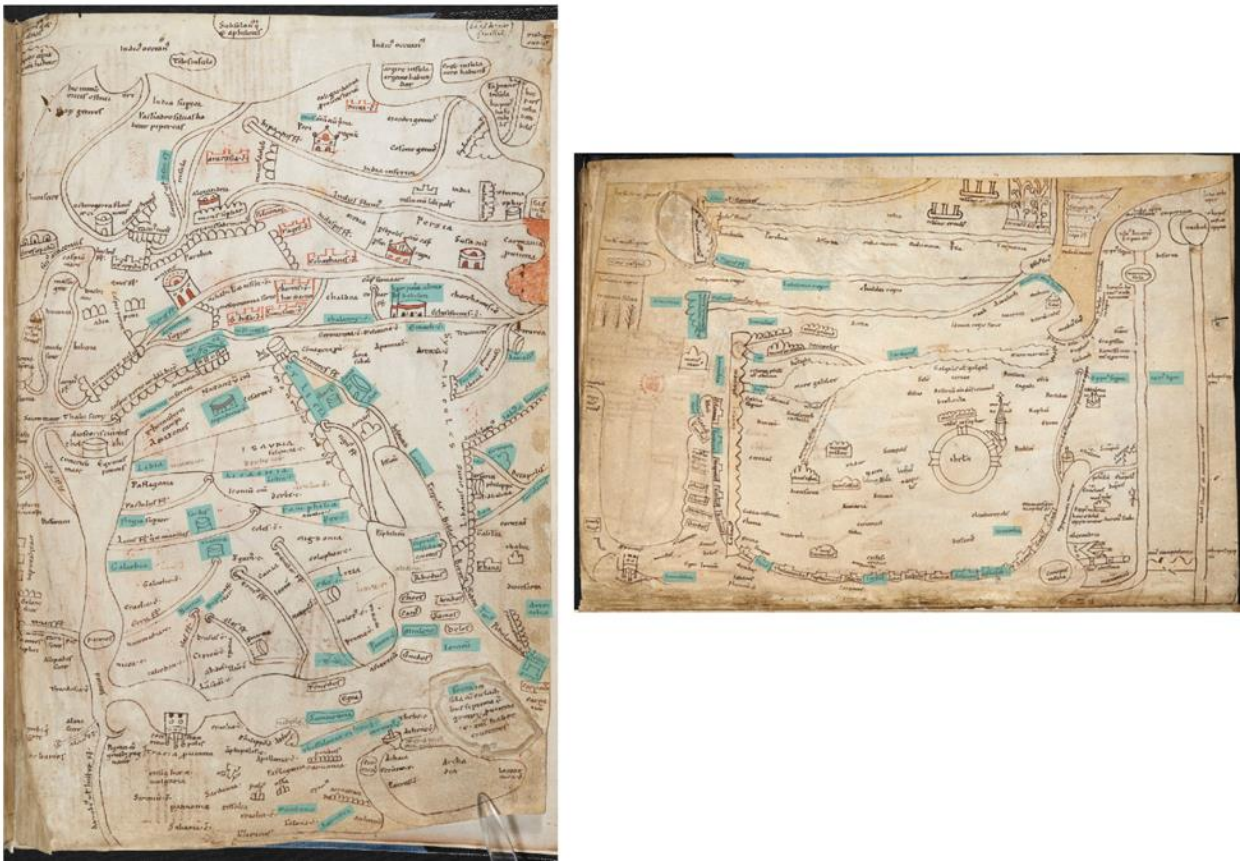


Figure 36
Place names on the Tournai Maps of Asia (left image) and Tournai Map of Palestine (right image) that are mentioned the *Interpretations of Hebrew Names*. Map: © The British Library Board; image by author.

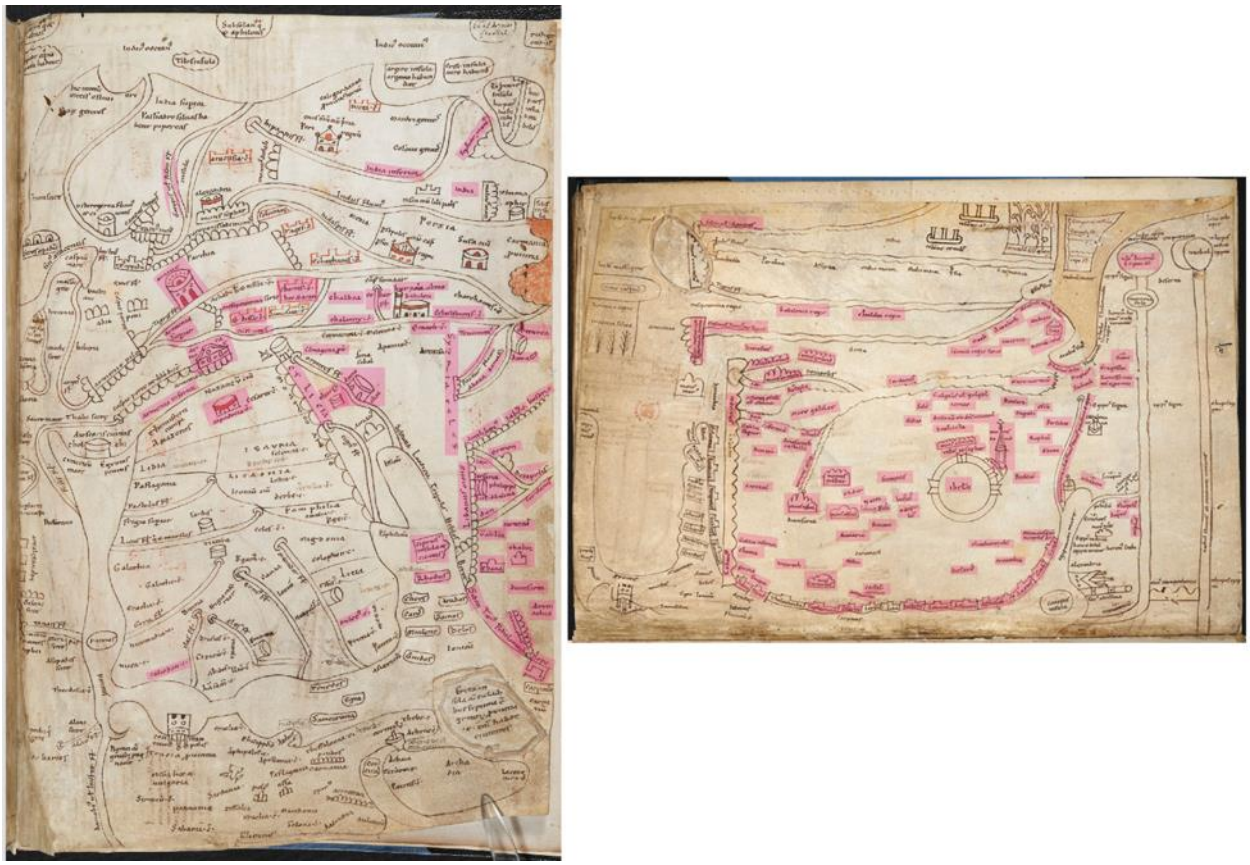


Figure 37
Place names on the Tournai Maps of Asia (left image) and Tournai Map of Palestine (right image) that are mentioned the *Book of Hebrew Places*. Map: © The British Library Board; image by author.

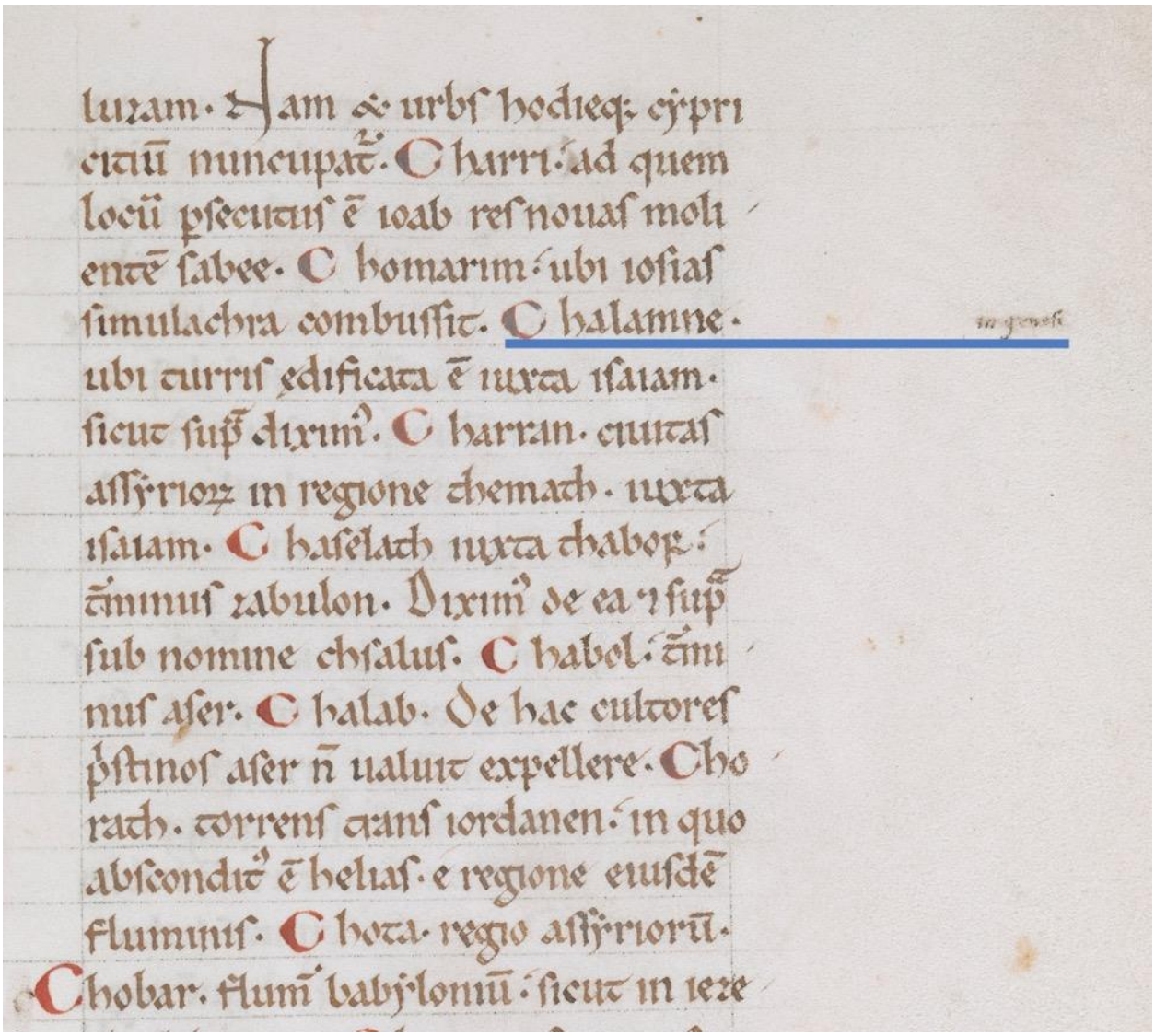


Figure 38
Page within the *Book of Hebrew Places* with marginal note inscribed by the map maker: *in genesi*, BL Add. MS 10049, fol. 52r, detail. © The British Library Board; image by author. This image was used in my article, see Brott, "Meet Your Maker."

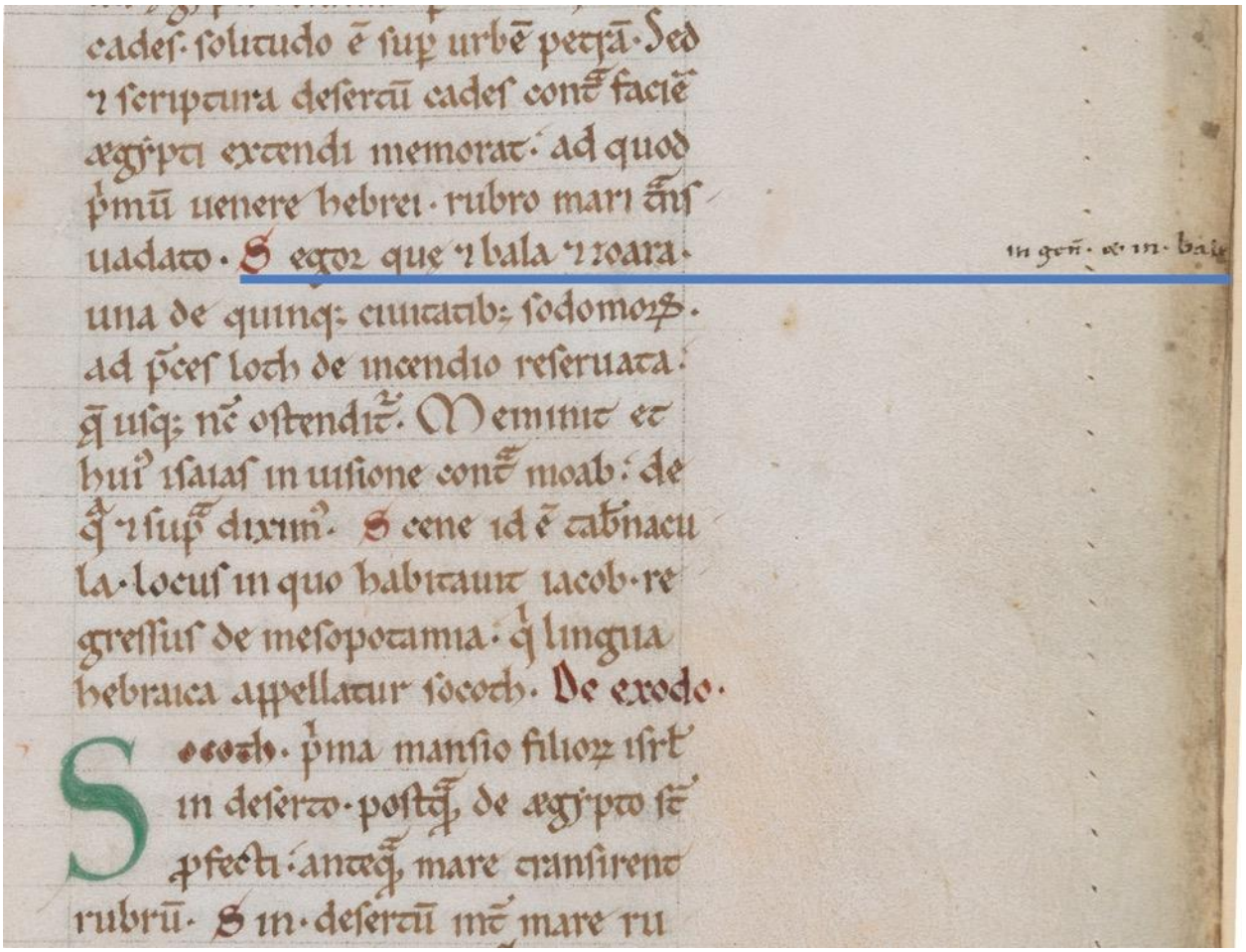


Figure 39
Page within the *Book of Hebrew Places* with marginal note inscribed by the map maker: *in gen(esis) i.e. in bale*, BL Add. MS 10049, fol. 52r, detail. © The British Library Board; image by author. This image was used in my article, see Brott, "Meet Your Maker."

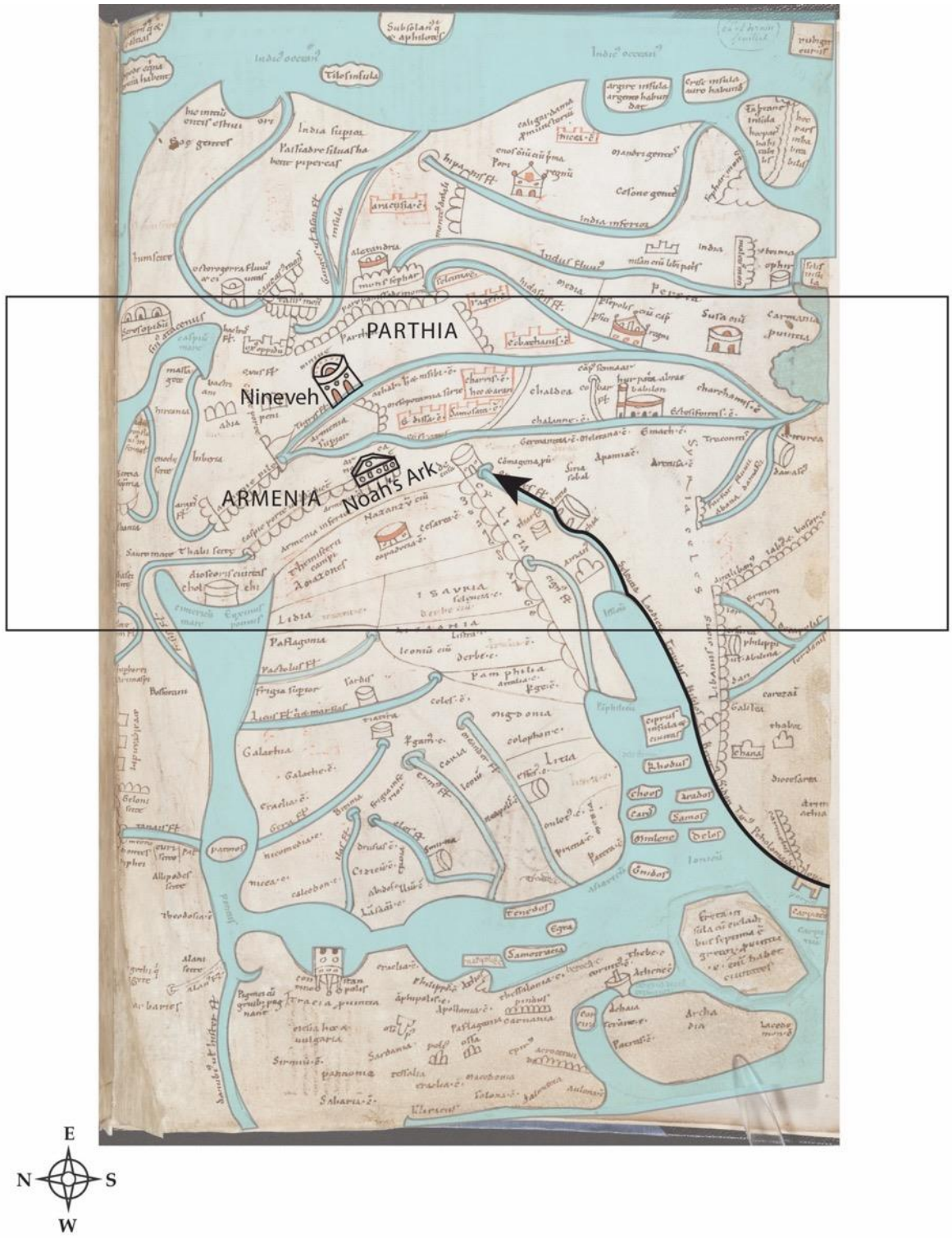


Figure 40
Rivers on the Tournai Map of Asia. Black arrow follows the Mediterranean coastline. Rectangle emphasizes area of focus. Map: © The British Library Board; image by author.

Figure 41
Orthorectified Tournai Maps of Asia and Palestine. Maps: © The British Library Board; image by author.

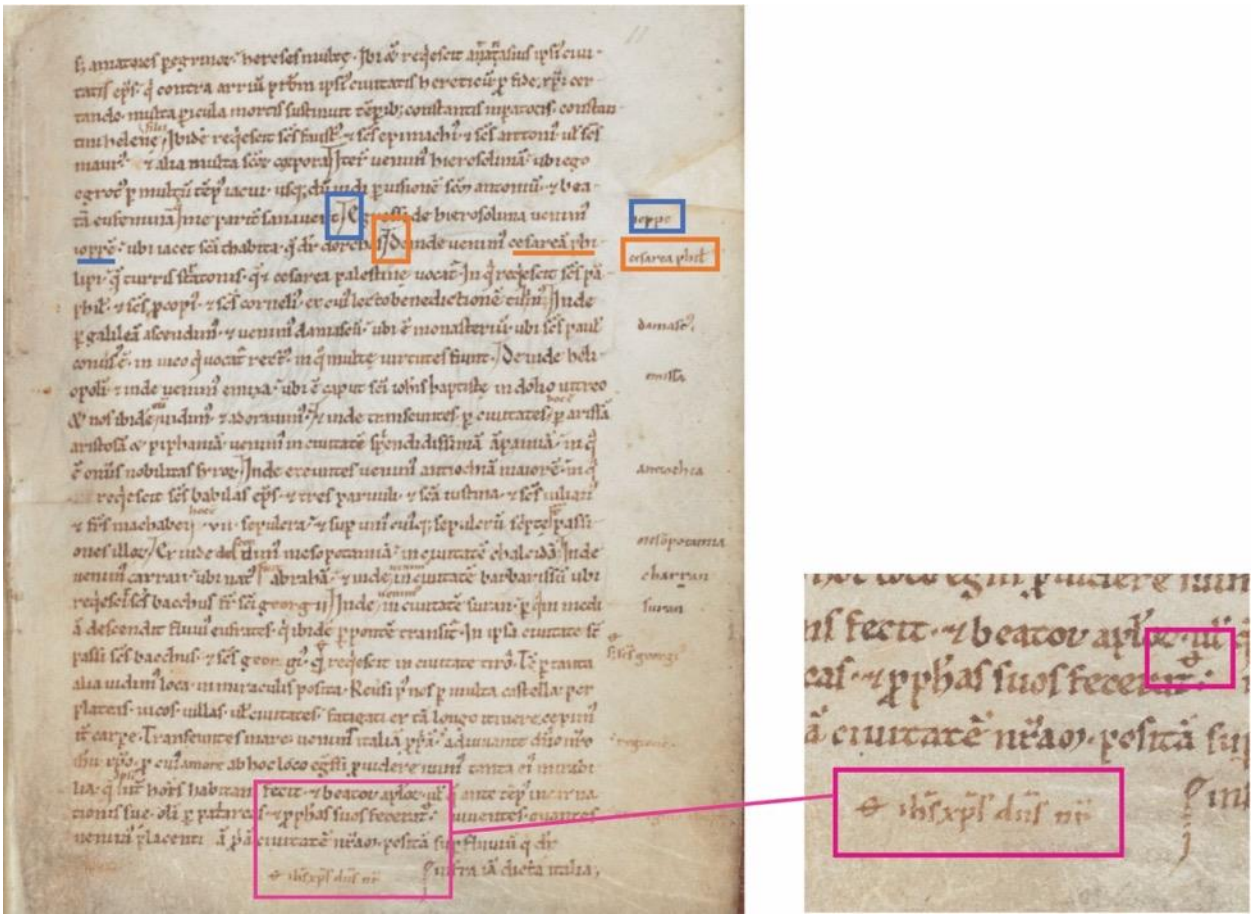


Figure 42
Asterisks in the *Transmarianians sacris*, BL Add. MS 15219, fol. 11r. © The British Library Board; image by author.

Figure 43
Matthew Paris's itinerary map, featuring the fold-out components inscribed with Rome (right flap) and Sicily (top flap); Cambridge, Corpus Christi College, MS 026, Chronica maiora I, folio iiir; highlighted: *continens* symbol. Map image courtesy of The Parker Library, Corpus Christi College, Cambridge; image by author.