Presentia Falsa Libri: Medieval Virtuality

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ABSTRACT: This deals with medieval notions of representation and the book. The medieval book as symbological object allowed for the virtual representation of text and image through scribal conventions and illuminations, while philosophers and theologians, even late-medieval mystics, created theories of representation grounded in the image of the book. Today, the medieval book is experiencing a new virtuality through worldwide digitization projects. My paper also addresses this issue, its implications for medievalists, and the future of the bound codex's hegemony.¹

Villard de Honnecourt, an early 12th-century French draftsman, wrote in the introduction to his only surviving work:

"Villard de Honnecourt greets you and prays to all who will work with the methods/devices that one shall find in this book to pray for his soul and remember him."

Villard saw his "book" as a way for him to be virtually present, even now nine centuries later. From this brief greeting written not in Latin, the dominant scholarly language of the time, but in Picard, a local language similar to French, Villard becomes immediately present. We learn his name, we learn his religious beliefs, and we learn his objectives for his text. His choice of the vernacular reveals, perhaps, his educational background, his audience, and his intentions for his text. This was not a book intended for scholars to pore over and comment on, but rather a pragmatic, instructional text written by an individual who looked to preserve his knowledge for future generations. Needless to say, of course, the presence that Villard achieves is a false one, achieved only through the medium of the medieval book. This "false presence of the book," I argue, constitutes a medieval virtuality not dissimilar from the virtuality that surrounds us today.

¹This paper was originally given on March 25, 2011 as part of the Kind(s) of Real Undergraduate Humanities Forum Research Conference at the Penn Museum, Philadelphia, PA. I am grateful for the help and support of the Penn Humanities Forum, my fellow undergraduate fellows, and Prof. Heather J. Sharkey. Prof. E. Ann Matter and Dr. Eric C. Knibbs also helped me with my research for this paper. This paper owes much to Jesse M. Gellrich's 1985 text *The Idea of the Book in the Middle Ages*, which proved seminal as I began my research.

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Together the combination of material, content, and composition constitutes this medieval virtuality.

The medieval manuscript as physical object becomes an important part of this virtuality. The dominant material used to produce manuscripts was parchment, made from the skin of usually a sheep or calf. The process of preparing the skin was labor-intensive and took several days. The price of a manuscript, therefore, depended on the price of livestock, with some long manuscripts requiring upwards of than 500 sheepskins.²

The high cost of raw material influenced the production of medieval manuscripts. Systems of abbreviation developed to allow for the largest amount of information in the smallest possible space. These systems themselves allowed for virtual representation of words themselves. Medieval manuscripts are filled with lines over words, representing letters or word parts that had been omitted. Lines bisect the tails of p and q, allowing for common Latin prepositions (like *pro*, *per*, *qui*, *quod*, etc.) to be represented by one letter. Scribes also created signs to virtually represent words. Take, for example, one of the most common words the Latin "et," or in English, "and." This word became abbreviated very early in the form of a unique symbol—the ampersand—that we still use today. Some fonts today strongly embrace the history of the symbol, making the individual letterforms explicit,³ while others leave the individual letters more obscure.⁴

²David Ganz, "Book Production in the Carolingian Empire and the Spread of Caroline Miniscule," in *C.700-900*, vol. 2, *The New Cambridge Medieval History*, ed. Rosamond McKitterick (New York: Cambridge University Press), 791-793.

³For example, Microsoft's Trebuchet font: &

⁴Times New Roman, for example does this: &. Though a capital *E* and lower case *t* are somewhat apparent after close inspection. Adobe Caslon Pro Italic, for example uses a form very close to the Medieval: &. Interestingly, the University of Pennsylvania's College of Arts and Sciences utilizes the preceding example in its logo.

Just as the limits of manuscript technology mandated the creation of abbreviations and symbols, the limits of today's technologies have mandated similar solutions. Text messaging, in combination with small keyboards on mobile devices, has led to the creation of shorthand notation and emoticons throughout today's communication. Such creations are even more striking in non-alphabetic languages like Japanese, where small images called emoji icons are used to represent language in lieu of text. Instead of writing out "Let's see a movie," a small pictogram of a projector may be used in a text message or email. Similarly, icons exist for various foods, modes of transportation, animals, and even weather conditions. In a 2007 survey of Japanese mobile phone users conducted by the Japanese research firm MyVoice over 78% of respondents utilized emoji icons to some extent. Moreover, their biggest complaint was not that the pictograms were hard to understand but rather that there were too few kinds available.⁵ Judging my the large number of applications available to Apple iPhone users in the United States that allow a user to enable emoji icons on their non-Japanese language phone, mobile phone users around the world are embracing this new form of visual communication. Much in the same way, manuscripts throughout the Middle Ages and throughout Europe came to embrace these complex systems that pose problems for medievalists and paleographers trying to read a text.⁶

Abbreviation, however, was not the only "virtual" part of the medieval manuscript. Indeed, punctuation itself took on a virtual form early on. St. Jerome who first translated the

⁵Ken Y-N. *Japanese Cell Phone Emoji Icon Usage*, 世論 What Japan Thinks, http://whatjapanthinks.com/2007/07/12/japanese-cell-phone-emoji-graphical-icon-usage/.

⁶Most medievalists turn to Adriano Capelli's landmark *Dizionario di Abbreviature Latine ed Italiane*, or *Dictionary of Latin and Italian Abbreviation*. First published in the late nineteenth century, it has since undergone multiple revisions and reprintings to the present day and is filled images of abbreviations and their meaning. An online work headed by Dr. Olaf Pluta dubbed *Abbreviationes*, Latin for abbreviations allows for textual searches, much like Google or other similar search engines. The service is much more costly than a used copy of Cappelli's *Dizionario*, however.

Bible into Latin utilized a system of punctuation called *per cola et commata*, characterized by Raymond Clements and Timothy Graham as "virtual punctuation." The system uses no marks. Instead, text is laid out on the page "sense unit" by sense unit," with the *cola* (colon) referring to a major division in a sentence where a sense was complete and the *commata* (comma) referring to a lesser division followed by a minor disjunction of sense where a reader might pause for breath. Such a method worked well for Biblical texts, which were frequently read aloud. Though more explicit punctuation marks replaced this method early in the Middle Ages, the modern critical edition of the Latin Vulgate Bible, published in 1969, retains St. Jerome's punctuation. Below is an example from the opening of St. John's Gospel in Latin and in English. The first example uses the *per cola et commata* system, and the second uses modern punctuation, from the punctuated and capitalized version of the Vulgate and the Douai-Rheims translation.

In principio erat Verbum et Verbum erat apud Deum et Deus erat verbum hoc erat in principio apud Deum omnia per ipsum facta sunt et sine ipso factum est nihil quod factum est in ipso vita erat et vita erat lux hominum et lux in tenebris lucet et tenebrae eam non conprehenderunt

In principio erat Verbum, et Verbum erat apud Deum, et Deus erat verbum. Hoc erat in principio apud Deum. Omnia per ipsum facta sunt: et sine ipso factum est nihil, quod factum est. In ipso vita erat, et vita erat lux hominum: et lux in tenebris lucet, et tenebrae eam non conprehenderunt. In the beginning was the Word And the Word was with God and the Word was God the same was in the beginning with God all things were made by him and without him was made nothing that was made in him was life and the life was the light of men and the light shines in the darkness and the darkness did not comprehend it

In the beginning was the Word: And the Word was with God: and the Word was God. the same was in the beginning with God. all things were made by him: and without him was made nothing that was made. In him was life: and the life was the light of men. And the light shines in the darkness: and the darkness did not comprehend it. Note how the modern punctuation aligns almost completely with the line breaks offered in the *per cola et commata* text. For this reason, many medieval editions of classical poetry retained the method despite advances in punctuation. Since classical Latin lacked any punctuation, the *per cola et commata* method allowed for the retention of classical elements but allowed for easier reading, and especially easier recitation since a reader could easily see where he should pause and stop.

The virtuality of the medieval book does not stop at method at medium, though. The contents that fill the many extant medieval manuscripts further show this false presence. Consider, for example, medieval maps. The medieval map functions, to paraphrase Suzanne Lewis in the Old French, as a visual "*estoire*." In one sense, a map artificially represents a geographical locale, but for medieval mapmakers, the map was not an independent scientific document. Maps were closely integrated with the test, functioning "as an effective visual means of conveying the idea of prominence within an abstract hierarchic perspective."⁷ And so we find maps that place Jerusalem at the center of the world showing the prominence of the city to Christianity. Other significant places or structures, especially those mentioned in the text appear in an exaggerated scale with relation to the surrounding map. The dual nature of the medieval map—as visual *estoire* and illustration—comes across in the words used to refer to maps in a text. "*Pictura*," "*figura*," and "*effigies*," from which where the English word effigy is derived, all convey the virtuality of the medieval map.

⁷Suzanne Lewis, *The Art of Matthew Paris in the Chronica Majora* (Berkeley: University of California Press, 1987), 322.

Take especially, Matthew Paris, a thirteenth-century Benedictine monk who lived at St. Albans monastery in England. Two of Matthew's works, the *Chronica Maioria* (Major Chronicle) and the *Historia Anglorum* (History of the Angles, i.e. England), both include maps of Britain. Matthew did not try to provide a geographically accurate map, however. Rather he used his map to illustrate what he could not convey through words, to the extent that the medium would allow. Mathew Paris orients England north to south not by convention, but rather because of the shape of the parchment. And indeed, Mathew admits as much, writing in his Historia Anglorum "Si pagina pateretur, hec totalis insula longior esse deberet." If the page had permitted, this entire island ought to have been longer. Important pilgrimage routes are highlighted, as are important cities, monasteries, and churches. His maps become integrated to the text, as important as words themselves.

Modern cartographers face the challenge of this virtuality. In his 2005 article *Lying with Maps*, Mark Monmonier, professor of geography at Syracuse University, points out that "most maps are massive reductions of the reality they represent, and clarity demands that much of that reality be suppressed." One map cannot represent everything perfectly and mapmaker who "tries to tell the whole truth in a single map typically produces a confusing display."⁸ All maps then are products of their editors. Everything from scale to symbols is an editorial choice a cartographer must make. Modern maps are not necessarily objective documents, then, and like their medieval predecessors, can represent only a "false presence."

This notion of false visual representation is not just limited to maps, however. Villard de Honnecourt, in the work from which I quoted earlier, had unique ideas when

⁸Mark Monmonier, "Lying with Maps," *Statistical Science* 20, no. 3 (2005): 215.

representing the real in his book. Villard writes next to an image of a lion. "See here a lion just as one sees it from the front; and know well that it was drawn to life/counterfeited from life."⁹ Villard does not use, as he does elsewhere, the verb *portraire*, "to draw," but rather "*contrafaire*," specifically "*contrefais al vif*," counterfeited from life or, more idiomatically, drawn to life. *Portraire* comes from the Latin *protrahere*, to drag out, whereas for a medieval Frenchman, *contrefais*, or counterfeit, would express a more negative connotation of fakeness or artificiality. This is a conscious choice by Honnecourt, who uses *portraire* elsewhere in the work. His use of *counterfais* is his acknowledgment that this image is not a lion despite what we may see.¹⁰ Rather it is a fake, a counterfeit, albeit a one that comes from life.

Manuscript images do more than represent the physical, though. They can also represent complex theological and philosophical ideas. The theological idea of Logos, the sort-of connection between the three persons of the Trinity, Father, Son, and Holy Spirit, is a complicated topic that pervades the philosophy of the period. The idea stems from the beginning of John's gospel, which begins "In the beginning was the Word," or in Greek, "logos." In one late-medieval Armenian manuscript held by the J. Paul Getty Center in Los Angeles (figure 1), we find the Logos, represented by a lightning bolt, descending on John the Evangelist, who points to the scribe writing down the Gospel.¹¹

⁹Villard de Honnecourt, *The Portfolio of Villard de Honnecourt: A New Critical Edition and Color Facsimile*, trans. and ed. Carl F. Barnes, Jr. (Burlington, VT: Ashgate, 2009), 167 and Fol. 24v.

¹⁰See Stephen Perkinson, "Portraits and counterfeits: Villard de Honnecourt and thirteenth-century theories of representation," in *Excavating the Medieval Image*, ed. David S. Areford and Nina A. Rowe (Burlington, VT: Ashgate, 2004): 13-36.

¹¹J. Paul Getty Center, Los Angeles, Ms. Ludwig II 7, fol. 193v.

The Word, or *Logos*, in a tangible representation, inspires John to write the Word, the Word of God in the Gospel.

In a particular Book of Hours, a common medieval prayer book held by Pierpont Morgan Library in New York City, is a depiction of the Annunciation of the Angel Gabriel to the Virgin Mary (figure 2). According to the St. Luke's Gospel, the Angel appeared to Mary, who then conceived of Christ by the Holy Spirit. In this unique depiction of the Annunciation, the Holy Spirit is depicted as emanating forth from God the Father and descending upon Mary, bringing Christ into the World. Once again, the complex idea of the Trinity is depicted visually.

Nowhere, perhaps, is the idea of abstract representation more evident than in Henry Suso's work. Henry Suso was a 14th-century German mystic, who like his teacher Meister Eckhart, taught that God could come into the soul provided that an individual let go of any connection with the physical world. Manuscripts of Suso's autobiography are richly illustrated throughout with pictures, or in Middle High German *bildes*, that Suso himself developed and whose production he oversaw.

One manuscript held by the Stiftsbibliothek in Einsedeln, Switzerland, contains a visual summary representing the entire work, serving in a way as a table of contents (figure 3). Suso himself lies across from a personification of Divine Wisdom, holding a *Weltscheibe* or world disc with a sun in the moon, showing what can be attained should one embrace Divine Wisdom. The manuscript also contains a very rare medieval representation of Aristotle, pointing to text that reads, "wisdom is putting in order," reflecting the purpose of the page itself, a visual ordering of the contents of the book. This idea continues in another manuscript of his work, with various images each

representing a certain lesson. One image reads in the Middle High German, "this next picture shows the zealous break-through of a man making good progress."

These pictures, however, do not serve as illustrations to the text. While they complement the written word and are related to events in Suso's text, they do not function merely as a visual representation of what occurs in the text. As one Suso scholar, Edmund Colledge comments,

"It is remarkable how many popular subjects of religious art of Suso's time are unrepresented in the...drawings. It would be quite false to [Suso's] spirituality if Mary and her child were not shown; but the true content of the pictures removes it far from ordinary manifestations of sentimental Marian devotion. It is an oblique reference to the dolorous Passion of Mary's Son, recollection of which suffuses all that Suso ever wrote."¹²

Each of these images, in a way therefore, represents the fundamental basis of Suso's writings.

In addition to medium and content, those charged with producing books, scribes, took on a virtual presence in both the production of the manuscript and the manuscript itself. It is quite common to find towards the end of a manuscript, the name of a scribe, the date he finished his work, and how long it took him. Several manuscripts held by the University of Pennsylvania's Rare Book and Manuscript Library contain these notes, called One explains that "this book was compiled by one the brothers of preachers at the request of Philip, King of France. In the year of the Incarnation of our Lord Jesus Christ, MCCLXXIX [1279]." Similarly, another manuscript explains that, "I, Peregrinus, from the Holy Spirit, prepared this book from an exemplar of our lord Archbishop." Thus, in

¹²Edmund Colledge and J.C. Marler, "'Mystical' Pictures in the Suso 'Exemplar' MS Strasbourg 2929," in *Archivum Fratrum Praedicatorum* 54 (1984): 293-354.

addition to giving us valuable historical information about the manuscript itself, such colophons also allow the scribe himself to be virtually present in his work.

Scribal work itself, however, was conceived of in such a way where the scribe itself did not see himself as merely writing. In monastic communities, writing books was a form of religious devotion, mandated by the rules that governed monasteries throughout medieval Europe. The work was viewed metaphorically in multiple texts of the period. One poem reads:

> "The art of scribes is the most arduous out of all the arts It is difficult and hard labor to bend the head and neck And to plow the parchment for two or three hours. Consider, readers, how the towering God, As he is called, hinders scribes!"¹³

Thus, a scribe did not "write," but rather he "plowed the parchment," in much the same way a farmer would plow his fields. St. Isidore of Seville, in his *Etymologies*, an encyclopedic text read throughout the Middle Ages, explained this concept in his definition of "verse."

"A verse is commonly so called because the ancients would write in the same way that land is plowed: They would first draw back their stylus from left to right, and then 'turn back' the verses on the line below, and then back again to the right" $(Etym. VI.xiv.7)^{14}$

¹³ My translation of an anonymous poem found in Societas Aperiendis Fontibus, *Poetarum Latinorum Medii Aevi* [Latin Poetry of the Middle Ages], vol. 3, *Monumenta Germaniae Historica* [Record of German History] (Berlin: Weidmannos, 1896), 296.

¹⁴Isidore of Seville, *The Etymologies of Isidore of Seville*, trans. Stephen A. Barney, W.J. Lewis, J.A. Beach, and Oliver Berghof (New York: Cambridge University Press, 2006), 142.

The explanation Isidore calls to mind the twentieth century Irish poet Seamus Heaney and his poem, "Digging." The poem's narrator discusses his career in comparison to the careers of his ancestors, writing:

> "My grandfather could cut more turf in a day Than any other man on Toner's bog. Once I carried him milk in a bottle Corked sloppily with paper. He straightened up To drink it, then fell to right away Nicking and slicing neatly, heaving sods over his shoulder, digging down and down For the good turf. Digging (...)

But I've no spade to follow men like them.

Between my finger and my thumb The squat pen rests. I'll dig with it."¹⁵

Heaney, himself a medievalist, has in mind his actual grandfather here, but also perhaps the metaphorical grandfathers of all those Irish scribes, who in their plowing, built the foundation for manuscript production in the Middle Ages.

Thus, even in the 20th century, the notion of the writer as plower, as farmer remains. Moreover, the false presence of the book is only being accelerated. Libraries all over the world have begun to digitize their medieval manuscripts and allowing them to be viewed through the Internet, like the Penn in Hand project sponsored by the University of Pennsylvania or the digital offerings by the British Library through their Turning the Pages website. This false presence has especially become accelerated through success of electronic books. An electronic book stored and read through an Amazon Kindle or an Apple iPad, is indeed a virtual book. The only difference between a copy of physical

¹⁵Seamus Heaney, "Digging," in *Opened Ground* (New York: Farrar, Straus and Giroux, 1998), 3-4.

book and a book on an iPad is that one is a digital file made of bits and the other is an analog file made of paper. The text and the information it contains, remains unchanged. Indeed, the object that emerged at the dawn of the Middle Ages that allowed for virtuality through its composition, content, and form, is quickly becoming virtualized itself. In the same way the Middle Ages saw the end of the dominance of the papyrus scroll, perhaps this age will soon see the end of the dominance of printed book.

Appendix 1. Figures

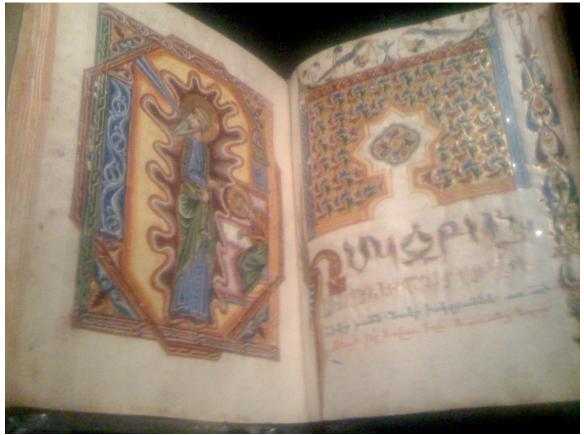


Figure 1. J. Paul Getty Center, Los Angeles, Ms. Ludwig II 7, fol. 193v.

Image © The author.



Figure 2. Pierpont Morgan Library Ms. H.8 fol. 30v.

http://www.themorgan.org/collections/collections.asp?id=94



Figure 3. Einsiedeln, Stiftsbibliothek, Codex 710(322) Fol. 22v.

http://www.e-codices.unifr.ch/en/sbe/0710/22v/medium

BIBLIOGRAPHY

The following list reflects my best effort to collect all the texts that I consulted during my research. Any omission is purely accidental and unintended.

Primary works:

I have consulted myriad manuscripts held by the University of Pennsylvania Rare Book and Manuscript Library. In addition, I have utilized facsimiles of manuscripts held by the Bibliothèque nationale et Universitaire Strasbourg, Einsiedeln Stiftsbibliothek, Pierpont Morgan Library New York, and J. Paul Getty Center Los Angeles. Shelf marks, where appropriate, appear in the paper and with figures.

- Heaney, Seamus. "Digging." In *Opened Ground*. 3-4. New York: Farrar, Straus and Giroux, 1998.
- Isidore of Seville. *The Etymologies of Isidore of Seville*. Translated by Stephen A. Barney, W.J. Lewis, J.A. Beach, and Oliver Berghof. New York: Cambridge University Press, 2006.
- Societas Aperiendis Fontibus. *Poetarum Latinorum Medii Aevi* [Latin Poetry of the Middle Ages], vol. 3, *Monumenta Germaniae Historica* [Record of German History]. Berlin: Weidmannos, 1896.
- Stevick, Robert David. Five Middle English Narratives. Indianapolis: Bobbs-Merrill, 1967
- Seuse, Heinrich [Suso, Henry]. *Deutsche Schriften [German Works*]. Edited by Karl Bihlmeyer. Stuttgart: Minerva, 1907. 1967 reprinted edition.

Secondary works:

- Bischoff, Bernhard. *Latin Palaeography*. Translated by Dáibhí Ó Cróinín and David Ganz. New York: Cambridge University Press, 1990.
- Cappelli, Adriano. *The Elements of Abbreviation in Medieval Latin Paleography*. Translated by David Heimann and Richard Kay. Lawrence, KS: University of Kansas Libraries, 1982
- Christopher, H.G. T. Palæography and Archives A manual for the Librarian, Archivist and Student. London: Grafton and Company, 1938.
- Clemens, Raymond and Timothy Graham. *Introduction to Manuscript Studies*. Ithaca: Cornell University Press, 2007

- Colledge, Edmund and J.C. Marler. "Mystical' Pictures in the Suso 'Exemplar' MS Strasbourg 2929," in *Archivum Fratrum Praedicatorum* 54 (1984): 293-354.
- De Honnecourt, Villard. *The Portfolio of Villard de Honnecourt: A New Critical Edition and Color Facsimile*. Translated and edited by Carl F. Barnes, Jr. Burlington, VT: Ashgate, 2009.
- Derolez, Albert. *The Palaeography of Gothic Manuscript Books from the Twelfth to the Early Sixteenth Century*. New York: Cambridge University Press, 2003.
- Fajt, Jiérâi. Magister Theodoricus, Court Painter to Emperor Charles IV: The Pictorial Decoration of the Shrines at Karlstejn Castle. Prague: National Gallery in Prague, 1998.
- Ganz, David. "Book Production in the Carolingian Empire and the Spread of Caroline Miniscule." In *C.700-900*, volume 2, *The New Cambridge Medieval History*, edited by Rosamond McKitterick, 786-808. New York: Cambridge University Press.
- Gellrich, Jesse M. *The Idea of the Book in the Middle Ages: Language Theory, Mythology and Fiction.* Ithaca: Cornell University Press, 1985.
- Grenier-Winther, Joan. "Server-side Databases, the World Wide Web, and the Editing of Medieval Poetry: The Case of 'La belle dame qui eut mercy."" In *The Book Unbound: Editing and Reading Medieval Manuscripts and Texts.* Edited by Siân Echard and Stephen Partridge, 190-220. Toronto: University of Toronto Press, 2004.
- Holcomb, Melanie. *Pen and Parchment: Drawing in the Middle Ages*. New Haven: Yale University Press, 2009.
- Hochuli, Jost, and Robin Kinross. *Designing Books: Practice and Theory*. London: Hyphen, 1996.
- Koster, Josephine A. "Most Excellent and Curious Hands: The Future of Paleography and Related Arts in Early Modern Studies." *Sixteenth Century Journal* 40 no. 1 (Spring 2009): 255-258.
- Lewis, Suzanne, *The Art of Matthew Paris in the Chronica Majora*. Berkeley: University of California Press, 1987.
- Monmonier, Mark. "Lying with Maps." Statistical Science 20, no. 3 (2005): 215-222.
- Perkinson, Stephen. "Portraits and counterfeits: Villard de honnecourt and thirteenthcentury theories of representation." In *Excavating the Medieval Image*. Edited by David S. Areford and Nina Rowe. Burlington, VT: Ashgate, 2004.

- Saenger, Paul Henry, and Newberry Library. A Catalogue of the Pre-1500 Western Manuscript Books at the Newberry Library. Chicago: University of Chicago Press, 1989.
- Schipper, William. "Digitizing (nearly) Unreadable Fragments of Cyprian's *Epistolary*." In *The Book Unbound Editing and Reading Medieval Manuscripts and Texts*. Edited by Siân Echard and Stephen Partridge, 159-168. Toronto: University of Toronto Press, 2004.
- Tufte, Edward R. Beautiful Evidence. Cheshire, CT: Graphics Press, 2006.
- Winroth, Anders. "Tools for the Study of Medieval Latin." in *Introduction to Manuscript Studies*. Edited by Raymond Clemens and Timothy Graham: 259-61. Ithaca: Cornell University Press, 2007.
- Y-N, Ken. Japanese Cell Phone Emoji Icon Usage. 世論 What Japan Thinks. http://whatjapanthinks.com/2007/07/12/japanese-cell-phone-emoji-graphical-iconusage/