

Martin Foys
foys@gmail.com

The Remanence of Medieval Media (*uncorrected, pre-publication version*)

For: *The Routledge Handbook of Digital Medieval Literature*, edited by Jen Boyle and Helen Burgess (2017)

Note: images are at the end of this draft

By the double logic of the remediating turn, the influence and effect of media does not flow singularly from present to past, any more than media historically develop in a monolithic line from past to present (Bolter and Grusin). What comes from before can only survive encoded in a physical substrate. Regardless of its original form and function, in the present this substrate assumes the function of media, as the past may only be understood forensically through information encoded within or by material survival. Such medieval media, in turn, are inevitably processed and re-presented through later forms of media. The effect is one of ongoing recursion: the environment of newer media recondition past media's survival within them, while formal suppositions about both past and present media forms merge to produce immediate and novel iterations of the past. Renderings of past media in new ones (as expected) fulfill present cultural and media biases, but they also generate imaginative and persistent surrogates, often unrecognized as shadowy supplements for the past they reproduce. This reality of medieval media is intensified by the increasing archival and multimedial capacity of the digital, which flattens temporal thickness and enhances the speculative immediacy of the past within its own present forms. This essay explores three instances of medieval media, one originating in the middle of the eleventh century and resurfacing in the middle of the sixteenth, one from the middle of the twentieth century, and one in our present digital moment. In each, acts of formal, technological excision ostensibly diminish the medieval source. But these acts are also opportunities to recognize the persistent, complex and transmedial nature that defines medieval mediality today.

Instance I: A Remanent Old English Text

The first surviving page Corpus Christi College Cambridge MS 44 (hereafter CCCC 44), a Latin pontifical, has barely survived at all (*figure 1*). The manuscript was written in the mid-eleventh century, probably at Canterbury (Graham 1, James 88-89). Though the remainder of this book is in Latin, as is usual for a pontifical, the first three pages are written in Old English, in the same scribal hand as the rest of the book. The surviving vernacular text preserves a very small section of a very large theological treatise – a brief exposition of the allegorical significance of ringing church bells to call people to worship, redacted from a chapter Amalarius of Metz's ninth-century *Liber Officialis* (Book 3.1). The first extant page of this translation has

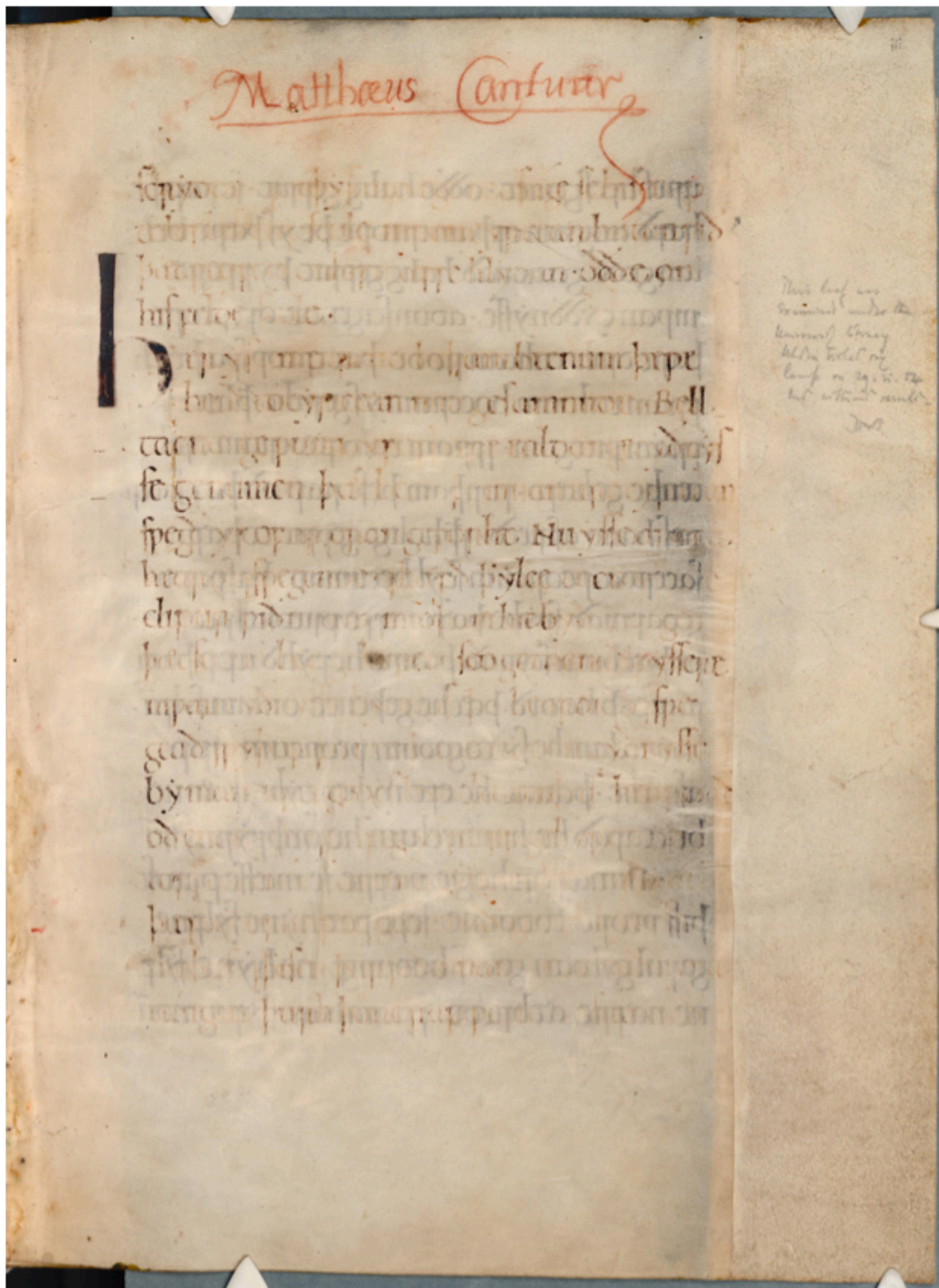


Figure 1. MS 44, Corpus Christi College, Cambridge, p.iii (c. 1050, Canterbury); reproduced by permission of the Master and Fellows of Corpus Christi College, Cambridge, though as faithful facsimile of text already in the public domain, permissions are not technically required for publication.

been largely erased, almost certainly in the sixteenth-century by or under the direction of Matthew Parker, whose rubricated signature (*Matthæus Cantuar[iensis]*) adorns the top of this page (Graham 2-3). While the writing of the second and third pages of Old English text remains largely intact, there is visible evidence on each of attempts to erase them as well; presumably the effort was abandoned, perhaps because of the physical labor it entailed (Graham 13 n.4). Matthew Parker is the antiquarian archbishop of Canterbury best known (ironically here) as the figure almost singlehandedly responsible for finding and preserving hundreds of Anglo-Saxon manuscripts after the dissolution of the monasteries in England.

In the case of this Amalarian text, Parker's erasure only continues the shrinkage of source begun more than 700 years before. A Frankish ecclesiast during the reigns of Charlemagne and Louis the Pious, Amalarius produced three editions of his massive *Liber Officialis* between 820 and 835. The final work is a formidably large text organized into four books and one hundred and fifty-eight chapters. Somewhere around 850, a much shorter redaction of the third edition was produced, known now as the *Retractatio Prima* (Chazelle 329-30, Jones 17-23). It was the *Retractatio* that was the version became known in Anglo-Saxon England, having come over from Brittany and being copied in England by the early tenth century (Dumville 213). This Latin redaction has survived in a number of Anglo-Saxon variants, including one from about the year 1000 in Cotton MS Vespasian D. xv. This *Retractatio Retractationis* (to give it a suitable name) is a series of heavily edited excerpts from the *Retractatio* – so, a redacted redaction (Graham 6-7). This version introduced a number of corruptions into the Latin, in places muddling or altogether changing its meaning.¹ The Old English version in CCC 44 is a direct translation of this corrupted redaction of a redaction, a scrap of Amalarius's mammoth work, surviving in a three-page excerpt with no clear context for inclusion, and no attribution of its original author.

Matthew Parker knew none of this particular text's history when he encountered it and sought to wipe it from the page. But his desire to delete was most likely an intuitive one, formed out of an reflexive reaction to the fragmented, vestigial material record before him, and one unwittingly aligned with the text's own history of transmission. The words on the page Parker saw were orphaned, cut off from any immediately graspable context, purpose, author or reason to interpret, far removed from any immediate sense of a "source." From a traditional, teleological mode that regards textual source and transmission as a depreciating process, Amalarius's original text had been vanishing for centuries, and Parker was, in effect, simply trying to finish the job.

In its present-day form, page iii of CCC 44 has become remanent. Remanence, a concept taken from cyber-forensics, is what is left behind on the materials of media

¹ An on-line, [free and open access](#) edition of the Old English translation and its Latin source that catalogues these changes is currently in preparation by the author.

after information is removed. No erasure from a physical medium can ever be total, as content deleted always leaves behind some kind of residue (Kuhn, NCSC-TG-025, Kirschenbaum 26). Remanence allows a part of what has disappeared in the past to always be traced in the present, and therefore reimagined. A palimpsested medieval manuscript page is remanent in analog; in 1995, Timothy Graham recovered all of CCC 44's erased text through technologically enhanced reading, using natural, ultra-violet and cold fiber optic light (4). Remanent moments such as these concern more than the recovery of old information, and the subtraction of what existed before does more than produce a demotic version of a source. Any act of erasure also encodes new information on the surviving substrate, enriching its status as both archive and communication. Remanence can also apply more broadly and abstractly to critical inquiry, in terms of what scholarly heritage and hermeneutic conditioning has removed from the record of the material past, and how alternative approaches to the formal environments of material, text and technology may recoup what has been subtracted.

Instance II: Photocopying the Forensic Imaginary

Technological advances in information management likewise tend to produce demotic biases towards the media forms they are designed to supplant. For the 1977 Super Bowl (where, somewhat aptly for the topic, the Raiders played the Vikings), Xerox produced a television commercial for its new 9200 duplicating system (Kay and Partners). The commercial's conceit was so effective that it won every top award given by the advertising industry, was judged by the *New York Times* one of the top twenty-five commercials of the twentieth century, and became the advertising basis for flagship Xerox products for much of the next decade (DigiBarn TV). The commercial features Brother Dominic, a medieval monk, who is tasked by his superior with making five hundred copies of a set of manuscript folia he has just completed. Faced with an impossible order of mass production, Dominic has an epiphany and takes a city bus to a modern skyscraper to ask a favor from the "Central Reproduction Department" of a corporate office. There he learns all about the features of the Xerox 9200, including its two pages per second reproduction and collation rate, and "computerized programmer that controls the entire system." His five hundred copies quickly in hand, Dominic returns to the monastery, and the commercial ends with his superior first gazing on the stack of copies, and then heavenward, pronouncing, "It's a miracle!" (*figure 2*).²

Jack Eagle, the actor who played Brother Dominic, noted in a 1982 interview that the commercial, "shows the Church in a modern atmosphere. It takes them out of the Middle Ages" ("Brother Dominic" 5). The ad campaign and its successors (including staffing exhibitions at industry trade shows with representatives dressed like monks (*Infoworld* 1), and the marketing campaign for Xerox's first personal computer (*figure 3*)) make their temporal, technological supersessionary agenda

² City bus and exterior skyscraper shots survive from an excerpt of a longer cut of the commercial, included in the "Xerox University" video (00:00:49-50).



Figure 2. Frames from the “Xerox Monks” 1977 television commercial; reproduced by permission of the Xerox Historical Archives and Xerox’s Office of Corporate Advertising.

The Xerox Personal Computer. It's not just one of the flock.



*"Another
miracle."*

Almost everyone these days is out there claiming to make simple, easy to operate personal computers.

But unfortunately, what the computer world considers "simple and easy" can be worlds away from what you consider "simple and easy."

At Xerox we grew up in the business world and earned our reputation by designing business machines for business people.

The Xerox personal computer is no exception.

Using CP/M® based programs it can help in planning, budgeting or forecasting. It can also make short work of such tedious tasks as billing, payroll and ledgers.

With additional software, our personal computer is a versatile word processor or, with communications options, it can become an intelligent terminal.

And lest you think the age of miracles is over, the Xerox personal computer, which includes keyboard, processor, display screen and dual disc memory system, comes with a very humble price tag.

So fill in the coupon below for more information on the Xerox personal computer.

Do it now and beat the flock.

I'd like to know more about the Xerox 820 personal computer.

Send to: Xerox Corporation, P.O. Box 470565, Dallas, Texas 75247

Name _____

Title _____

Company _____

Address _____

City _____ State _____

Zip _____ Phone _____

SI-D-30-81

XEROX

XEROX® and 820 are trademarks of XEROX CORPORATION. CP/M is a registered trademark of Digital Research, Inc.

Figure 3. Magazine advertisement for the Xerox 820 personal computer, released in 1981; reproduced by permission of the Xerox Historical Archives and Xerox's Office of Corporate Advertising.

explicit by forensically imagining the medieval world as an outmoded one in both the past and the present. The spot opens with Brother Dominic as a fatigued scribe, massaging his temples, as a voiceover intones, "Ever since people started recording information, there's been a need to duplicate it." The narrative arc of the commercial removes the scribal manuscript source that opens the ad, replacing it in the information economy with a pristine stack of automated print, and it constructs Brother Dominic as a proxy for the modern viewer, and pre-Xerox office labor as the medieval Church. Without the Xerox 9200, your information management is unambiguously "medieval." Computerized text and image reproduction, new on the scene in 1977, presents as a miraculous future made immediate, one which will save you as it did Brother Dominic, as if by a literal *deus ex machina*.

Formal, Forensic Materialisms

Today, the easiest, practically the only, way for most people to view either the erased page of CCCC MS 44 or the Xerox Super Bowl commercial is through digital media (Parker on the Web, Digibarn TV). Regardless of the material truth of a media form, its reality derives from *beliefs* about its materiality, which dominates how we then assess both its function and content. In his study of digital media, Matthew Kirschenbaum develops the notion of "formal materiality" to expose the misapprehension that digitality is by nature ephemeral and non-material - 1's and 0's floating in the ether. Instead, like all media, the digital is always a physical phenomenon, but has been modeled as incorporeal: "a digital environment is an abstract projection supported and sustained by its capacity to propagate the illusion of immaterial behavior" (11). Kirschenbaum distinguishes formal materialism from forensic materialism, the physical reality of media, and the way information encoding marks and individuates the material substrate of any instance of media (9-11). To expand Kirschenbaum's notion historically, various abstracted, material beliefs inform the reception of all media, and the interaction of forensic and formal materialisms attend any study of the past. Modern subjects who engage or reproduce surviving medieval media forms both excavate the material record and reinvent it through the formal materialities of the technologies they employ.

Remanent media such as the first page of CCCC 44 and forensically imaginative ones such as the 1977 Xerox Super Bowl commercial invoke medieval mediality through related crises in information management both conceptual and textual in nature. The crises derive from discovering the compromised status of the medieval source – Brother Dominic's scribal production formally cannot meet the needs of subsequent mass reproduction, while Matthew Parker's attempted erasure of the Old English Amalarian fragment forensically documents an almost literal vanishing point of the writing's ultimate textual source. These moments engineer a medieval past that is manifestly linear and teleological. Brother Dominic's physical labor as a scribe - the human *mouvance* that the monk imparts to the written product is contrasted to the rapid and automated technological homogeneity of the Xerox 9200 designed to succeed it.³ In homology with Brother Dominic, Parker's erasure of CCCC 44

³ The word "Xerox" itself announces that this technology also introduces a new formal materialism - Xerox derives from the 1948 word xerography, from the Greek xeros, "dry" to describe the process of "dry"

enforces the hierarchic ideology of source and copy that largely governs the nature and value of surviving medieval text, with attendant, platonic consideration of the corruption that accompanies transmission and copying. These two examples together encapsulate teleological impulses for understanding surviving medieval modes of textual transmission and reproduction. In a classic formal materiality of the medieval manuscript, earlier and more complete texts are privileged over copies that follow.⁴ The canonic formulation of media history (as realized in the Xerox commercial), reverses but maintains the integrity of this relation, as the latest becomes best, and the modern copy becomes the desirable, transcendent surrogate for the medieval source. In both modes the transmission of medieval information is effected only through formal materialisms that maintain that the process of medieval media is one of increasing inferiority.

Cybernetic Alternatives

In the historical progression of media theory, the human body is also remanent, but has been making a recovery. Wolfgang Ernst distinguishes medieval mediality from modern in the former's collapse of human and informational ontologies (348). We see such a distinction replicated in Xerox's commercial – medieval modes of reproducing information takes a toll on the human body, the fatigued Brother Dominic (*figure 2*). We see it again in editorial attitudes towards medieval textuality, where human, scribal variance accounts for corruption of the source, an increasing amplitude of noise in relation to the original signal. The automated "computer programmed" Xerox 9200 implies that humanity can be removed from the equation, closing (and closing off) the circuit between god and miraculous machine. But the surviving eleventh-century Old English Amalarian text tells a different story – one where the medieval source is not degraded, but *transformed* by the human body. Here is the text in full:

Concerning Those Beacons By Which We Are Gathered Together At Church:
The Bell-token's custom is taken from the Old Testament. The beacon that reverberates in our church is made of brass-ore. Now, the brass-ore is hard and sonorant, and that same token has an iron clapper within. With that, the bell is struck so that the time may be heard. This signifies the New Testament's preachers. They endure and resound more than the Old Testament's trumpets. Our God's preachers' mouths will endure until the end, and their sound is heard as far as the earth's end, and now throughout all

printing - a fundamental departure from "wet" forms of inscription and reproduction that were essentially the *sine qua non* of all forms of durative writing up until the late nineteenth century.

⁴ The material reality of such corruption in transmission remains a vital formal materialism today, the foundation of stemmatic studies which allow us to teleologically arrange and understand the history of a text's material transmission predominantly in relation to a desired point of origin. As Pascale Bourgain recently put it in a recent study of later medieval manuscript transmission, "the progressive corruption of original texts, from one copy to the next, was a recurring problem of diffusion, which the most educated dealt with by zealously correcting their copies" (151); cf. Bernard Geohegan, who holds that for the medieval period, "repetition and similitude are not the source for information; they are the quintessence of its form" (ctd. In Born 111).

the earth. This brass-ore vessel signifies the mouths of God's preachers, and that iron within there signifies their tongues. Through the rope we understand the measure of our life, or holy Scripture. The rope, which has a beginning out of that wood that is the bell's yoke, signifies the holy Scripture of the New Testament descending from the wood of the Lord's cross. That wood still is explained by old authority, so that it is from wise men and patriarchs held to be from the Lord. For this the rope stretches to the priest's hand, and that holy Scripture must combine with the works of priests. These words are greatly suited to the work of the mass-priest, who shakes that beacon. When he reaches up for the rope, he does that so that he might perceive in himself how much he might be raised up to good works. When he again pulls down, then he sees how much he rests in depravity. Now the mass-priest should not ever disdain to do this work, he who knows himself to be a tributary of God's preaching. Nor may he ever draw himself back from the moving beacons, while that he might by the same preach to God's people. The cord with which the clapper is secured is like moderation, so that the tongue's clapper may move and strike the lips with a certain measure. For truly with a touch of the rope, the cord moves the clapper, as when the preacher's, that is the mass-priest's, tongue stirs, or with moderation is devoted to the authority or the honor of God's teaching.⁵

Standing on its own, the Old English bell-tokens text fashions a rich media ecology of bells, bodies and words. The material elements of the medieval bell, itself a largely unstudied pre-modern form of ephemeral, long distance mass communication, functionally engage with both the textual foundation of faith and its more immediate performance in the speech acts of preaching (Arnold and Goodson). The constructed allegorical figure itself enacts a supersession of media and text, as the bells of the medieval church displace the trumpets of the Old Testament, and represent the preaching of the New Testament, a broadcast ordained to move and endure through all earthly space and time. The second half of the Old English text centers on the physical work of bell ringing, constructing the somatic act as a moral figure, but also one that highlights the bodily activity like a cinematic close-up, emphasizing reaching arms, closing lips, and stirring tongues. The physical body and technological bell cannot be separated in the resonance they produce together.

The embodied nature of what was retained in this text as it continued to be cut down is as revealing as what was removed. From the original chapter, the mid-ninth-century *Retractatio Prima* version cuts about 25%, while the late tenth-century English redaction excises an additional 30% of the original text. Though Amalarius's allegories have a medieval and modern reputation of not being intertextual enough (Chazelle 331-2, Jones 6-7), his *original* chapter on church bells, as with all of his *Liber Officialis*, creates a tissue of Old Testament, New Testament

⁵ Translation is my own. Texts of the CCC 44 Old English translation and the Latin parallel version in Cotton Vespasian D.xv are available in Graham, pp. 12-15.

and various patristic authorities.⁶ The chapter on bells in the original cites, quotes or refers to the Book of Numbers, the sons of Aaron, the Book of Joel, Jerome's commentary on the Book of Joel, Psalmic verses, the Gospel of Matthew, Paul's Second Letter to the Corinthians, Gregory the Great's Homily on Ezekiel and the Book of Acts (Hanssens 257-60, Amalarius 4-9). In total, these intertexts comprise roughly 60% of Amalarius's original commentary. All of the first stage of cuts in the ninth-century *Retractatio Prima* are from patristic and Scriptural references; specifically, sections of the Book of Joel, Jerome's commentary, references to Psalms, Corinthians and Matthew, and an explicit quotation from Gregory. The later tenth-century Anglo-Saxon redaction of the *Retractatio Prima* then removes almost all of the remaining intertextual material. The only temporalized, textual connection remaining to earlier writing in this final version is the generalized movement from Old Testament to New Testament in the "new law" preaching of present day priests. What survives in this final, vernacular version does not emphasize the traditional textual foundation for an allegorical interpretation – the hermeneutic sources have been stripped out, leaving primarily the immediate physical, somatic and sensory interaction of the priest and the material bell he rings. In the redacted text, the authority of earlier writings are the information erased from the record, and the vestiges of texts that remain are not the the source and *telos* of the revised Amalarian allegory. Rather the human, material activity is – almost all that matters is the action and substance of the bell ringing.

What the movement of this text through early medieval time has effected is not a demotic corruption or diminishment of its source, but its radical, *cybernetic* transformation. We are most familiar with cybernetics in terms of modern information systems, as in its original formulation by Norbert Wiener as "the scientific study of control and communication in the animal and the machine" (10). The central tenet that information systems operate and respond in relationship to their environments and input quickly developed into explorations of how such systems, both technological and organic, interoperate with each other. Our world today is increasingly, overtly cybernetic in this way - as humans and machines function together in mutually formed feedback loops of information. More and more, our day-to-day existence as human subjects is formed from our inputting information into machines, and machines outputting information into us. The Old English fragment of Amalarius's work reveals a similar embodied materialism for the function of medieval media, one dominated not by the systematic transmission and re-signification of texts (and their corruption), but by an unruly cybernetic interaction.

In eleventh-century England, Amalarius's text was consciously re-engineered to leave a textual network, and join a cybernetic one, one that replaces the loop of textual transmission, citation and authority with one of humans, texts and material machinery (priests, voices, scripture, bells, wood & rope). The result is a system of human and mechanical communication that stages divine and moralized meaning in

⁶ For all of the *Liber Officialis*, Knibbs notes that Amalarius's commentary "incorporates excerpts from over eighty different Latin and Greek patristic sources" (635).

the immediate phenomenon of material, physical and technological activity. Here, in this actual Anglo-Saxon scribal production, is an apt rejection of Brother Dominic's fantasy of the supersessionary Xeroxian "miracle" of computerized media – a transformative mediality of divine and cybernetic engagement achieved through retransmissions of the medieval source that deliberately reduce it in order to remake it. What is missing and what remains in the Old English reduction/redaction of Amalarius challenges us to reformulate the material circumstance of medieval media and communication as not simply storage and version (which stand as ontological signposts for source and allegory) but as the encoding of a remanent meaning – regularly resected by our own formal materialisms of medieval textuality, but never wholly effaced.

Instance III: Medieval Digitality

In the case of our Old English Amalarian text, its "source" in its later medieval moment mattered less than its reinvented content. Likewise for the digital decoding of the medieval, when, "in contrast to the fixity of print, decoding implies that there is no original text – no first editions, no fair copies, no holographic manuscripts" (Hayles 47). Among many other qualities, mediality is an ongoing production derived from a continuing loop of information and feedback between humans and technology. The Amalarian and Xeroxian examples suggest we think more expansively about how the nature of medieval information both is regulated and changes over time. Both media objects are productions of faith (one in a theological god, the other in a computerized one) involving bodies, communication and mechanistic materials. Together they help outline a media ecology, or better, a media *machine*, to invoke Levi Bryant's recent revitalization of this term to encompass the collocation of corporeal and incorporeal, organic and inorganic units that constitute aspects of existence (15-17). The Old English bell-tokens text and the Xerox commercial both function as media machines organized ultimately around a progressive ideation of communication – how it functions, how it means, how it improves. Medieval media machines helpfully move our understanding of media beyond the synchronic obsessions that often define assessments of their operation in any given moment. In consideration of medieval media, the "cleanliness" of information transmission, harkening back to Claude Shannon's classic formulation of noise in signal issues in communication theory, needs always to be thickened with both negative and positive temporalities. Fixing upon how the signal degrades over time has long been a hallmark of how the present studies the medieval past. The "immaterial" formal materiality that propagates illusionary beliefs about digital media proposes that such signal decay can be arrested. The high resolution digital image of the palimpsested page iii of CCCC 44 available through Parker on the Web suggests its form can be preserved in time for viewers, much as the computer-controlled Xerox 9200 froze Brother Dominic's medieval scribal production in modern technological time, producing hundreds of homogeneous copies in mere seconds.

But as Whitney Trettien points out, the *strangeness* of digital media to the prior media forms it subsumes "has the power to short circuit scholarly conventions within the humanities, forcing current methods of reading, writing and

communicating to run along previously unintended paths" (184). When we engage the medieval past digitally, we do so not only through forensic imagination, then, but with a forensic *mediality*, a temporally charged refashioning of (and at times resistance to) past information and media through: the media of the present, the formal expectations of storage and transmission these present media forms engender, and the formal materialisms they in turn place upon past media. One "unintended path" develops from the digital routines through which we experience medieval material on a daily basis. Every medievalist now works with the material evidence of the period in one digital form or another. Any person connected even a little bit to medievalist resources, institutions and colleagues on social media now encounters digital versions of manuscripts on a regular basis; frequently as excerpted fragments featuring a unique or exceptional image. Such digitally remediated content render the medieval artifact newly remanent, networked in an emergent practice of media reproduction that formalizes new expectations, beliefs and valuations through its nascent digitality. Consider a representative sample of medieval images that came across my own social media feeds during this essay's initial drafting (*figure 4*).



Figure 4. Manuscript images, digitally excised in social media. **Damien Kempf and Medievalists.net**, Twitter.com, **June 24 and 25, 2016**. Reproduced with permissions of the original posters, though the author of this essay does not agree that such permissions need to be obtained. [#remediationfail](#)

There is something alluring about the immediacy of the digitized medieval image. The formal materiality of such digital excerpts presumes a metonymic connection to the physical, original source of a manuscript. The expectation of metonymy runs in tandem with a presumption of increased access that digitized manuscript images provides. Improved access to at least the visual content of a medieval manuscript is undeniably significant, but the relationships digitality engenders between modern

users and medieval sources are, as the expression on Facebook goes, complicated. As Jo Livingston has recently put it, with a digital facsimile, "a library can then reasonably deny you access to the book itself. Their reasoning goes: Why do you need to touch the manuscript, if you can zoom in on it online?" A defining property of new media is its capacity to flatten time (Straw), but the temporal qualities of digitally remediated medieval material is, likewise, complicated. The digital image does not supersede its material source; rather, it initiates an ongoing oscillation between past and present medialities, a kind of media archaeology collapsing into a present-day media ecology (Born 116). While ostensibly frivolous examples, the tweeted and Facebooked manuscript images provide here highlight the multiple modalities of digitally medieval media. They fetishize the medieval manuscript, they imply a faithful copying of the physical source that stands as a part of a larger media object, but they also subsume its past medieval meaning within a clear framework of new and modern (if often playful) communication. Here is the irruption of the past into the present that digitally smooths over its own temporal complexities.

The digitality of medieval media engages with and continues the long history of its transformation. When Matthew Parker desired to erase the Old English text of CCC 44 in the sixteenth century, he participated retroactively in a distinctly medieval material economy of media recycling. Beyond the common practice of palimpsesting, medieval parchment was reused in book bindings, soap wrappings, dress and hat linings, wallpaper, lampshades, drum skins, polishing rags, and undoubtedly many other appropriations that cared little for a manuscript's written informational content (de Hamel 5, Ege 517, Kwakkel, "Wearing a Book"). The reuse of manuscript fragments for book bindings increased dramatically in the sixteenth century, at the beginning of the typographic age, signaling a remediating turn where as the new media form displaced the old, it began to literally dismantle the older media object in the process (de Hamel 6). In assessing of why medieval manuscripts become dismembered, Christopher de Hamel writes that "there comes a point when one must ask where the moment of dispersal begins," noting that most medieval manuscripts have been undergoing modifications of material form and context since they were originally produced. Covers and bindings have been replaced, pages often trimmed, and provenances changed as books circulated and, eventually, libraries and treasuries themselves were broken up (24). Like all information encoded in the past, surviving examples of medieval media exist state of retransmission and, in the modern period, forms of remediation. This is the historic, hermeneutic, and *ongoing* medial reality of the medieval media source.

On the literal face of it, Matthew Parker's sixteenth century erasure of the first surviving page of CCC 44 is a regression, an undoing of the information, not a progression. But the line between undoing the content and function of a past media object and remediating it is difficult to draw. Matthew Parker wished to remove the Old English translation of Amalarius because he valued its material substrate, the vellum it was written on, more than its writing. The text, the original information encoded on it was to be discarded because it had become (to Parker) source-less, and therefore useless. In all likelihood, only the material obdurateness of the ink to being deleted allowed the bulk of it to survive. Parker or his agent engaged in a

difficult, physical act; the body worked hard to scrape and rub off the body of the surviving Old English writing, and in the Amalarian text's erasure, the body returned to engage with and transform the media into something more than what it removes. With digital images, the relationship reverses. The material substrate of the original media is discarded; what matters is the visual content, because it is what can then be remediated, re-formed within the digital. As Will Noel observes, digitality enables formal and informational plasticity within reproductions of the material artifact (*figure 5*), permitting it to be manipulated in fundamental ways, and with additional data imposed upon it, creating a new media object of layered, thick data. As a surrogate for a medieval source, a digital copy becomes its own source, kinetic, mutable in appearance, and a new, visual substrate for layers of information to be mapped over and around its representational surface.



Figure 5. William Noel, Twitter.com, 21 June 2016, 11:29am. Reproduced with permission of the original poster, though the author of this essay does not agree that such permission needs to be obtained. [#remediationfail](#)

In his brief but magisterial historical survey of the practice of cutting up medieval manuscripts, de Hamel recounts how in the eighteenth and nineteenth centuries, it became fashionable to remove, remount and frame medieval illuminations from their manuscripts. As such, "they ceased to resemble pieces of a manuscript, but were transformed into tiny but exquisite devotional panel paintings" (11). This decontextualization and transformation of the information marks a dramatic shift, where the fragmentation of the source is desired across a number of registers: culturally, aesthetically, and even, as the history of manuscript cutting shows, economically. The practice of distilling manuscripts down to what most visually appeals reveals another mode of modern formal materialities, and how they deform and reform the textual medieval source. De Hamel, playing devil's advocate for why such practices continue even today, rationalizes (but does not endorse) that many medieval manuscripts are perceived to now be "of very slight textual value" and

"will never be of a significance in establishing the original text"; as a consequence, the script . . . can be viewed in one leaf as well as they can in a hundred" (21). In this view, if a manuscript's textual content is not vital to a source, its physical preservation is, so to speak, immaterial. Digitally cutting medieval manuscripts does not compromise the integrity of the physical source as literal cutting does, but it does similarly, radically change the ontological status of the medieval media. In digital reproductions, as in typographic ones before it, a medieval object's existence no longer be understood as a moment of singular media, but rather, across time, as it assumes a transmedial state of existence. The digital generation of medieval artifacts' lives only intensifies this process.

The transmedial state of medieval media also poses challenges for how we understand and classify the materiality of a medieval media object, when (as in the digital) it is remediated into forms that erase its former material qualities. In Otto Ege's notorious 1938 essay, "I am a Biblioclast," he defended his role as a "book tearer," one who dismantles medieval manuscripts and sells them piecemeal. Ege rooted his justification firmly in the materiality of the media he broke apart, and related to an ethical, public good:

Surely to allow a thousand people "to have and to hold" an original manuscript leaf, and to get the thrill and understanding that comes only from actual and frequent contact with these art heritages, is justification enough for the scattering of fragments (518).

Of course, from the perspective of media (and medievalists), the problem with book breaking is that while it may make the fundamental material phenomenon of manuscript writing more widely accessible, it destroys the media object's archival identity, and the information that its form and content durably continued to preserve and transmit across centuries up until its fragmentation. Breaking up a medieval manuscript jams the once pristine signal from the medieval past by introducing a massive noise of physical absence and decontextualization. Digitality does not physically mutilate its material source, but its formal plasticity and hyper-mass production can similarly alter its status as source through decontextualization and then recontextualization in profound ways.

The mutable nature of the digital form likewise enables, to a point, fragmentation to be undone. The digital reassembly of geographically separate fragments of medieval media objects (manuscript folia, altar panels, coins of a buried hoard) seeks to redress the physical fracturing of medieval media that has occurred through the medieval and modern periods. Theoretically, such virtual repair could scale upwards to levels of entire medieval collections; if a physical specimen or copy of medieval information survives, the process of its dispersal can be reversed.⁷ But even a complete, high resolution digital repository cannot transmit everything about a medieval object – much about a manuscript's physical presence and content is lost

⁷ *E.g.* the Manuscriptlink project, whose stated goal is, "to undo this cultural destruction by identifying, re-aggregating, and publishing an estimated 300,000 manuscript fragments worldwide."

in the process of digital representation (Treharne). Digital repositories also "break" the book in another mode, disbinding individual folia and reducing the materiality of the source media to the register of unadulterated visuality (*figure 6*). The effect of such digital breaking or assembling is to extend the visual bias of earlier modern approaches to medieval expression (Foys 461-2). All digital images of the medieval past occupy some place on a continuum of modern ocular materiality, anchored on one end by a methodological ideal of access and virtual "completeness" (e.g. the digital repository) and on the other by aesthetic fragmentation and recontextualization (e.g. the cut and pasted image). Both extend, if more benignly, the modern impulses behind the literal cutting of images that were deemed visually exceptional.

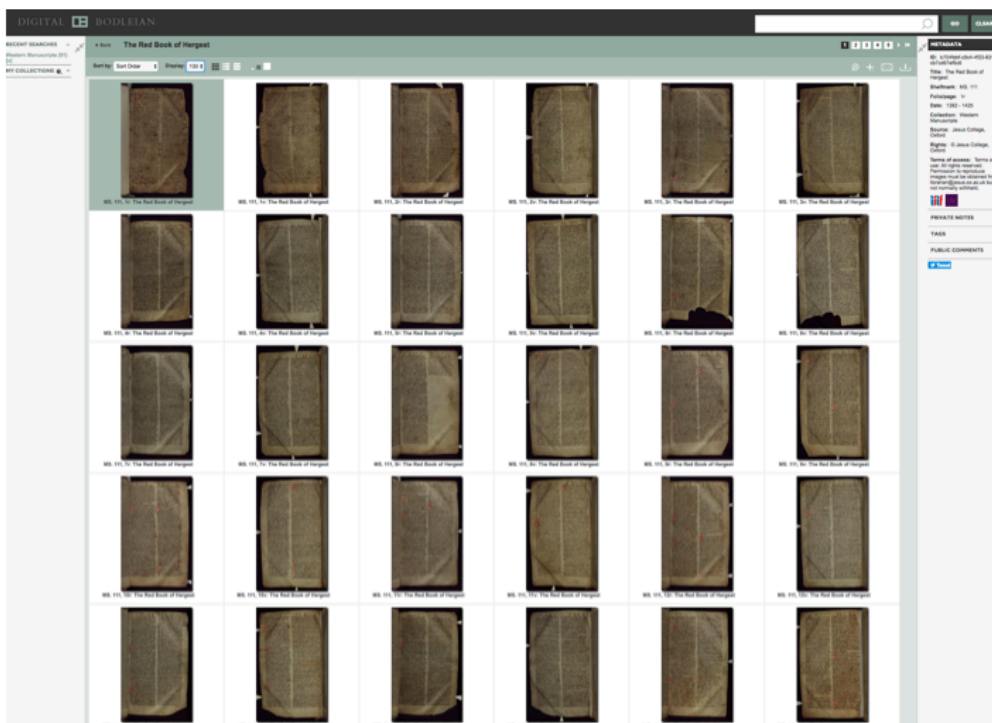


Figure 6. A digital manuscript from the e-Codices online repository (St. Gallen, [Stiftsbibliothek](#), Cod. Sang. 4); visual layout of this digital resource reproduced by permission of St. Gallen, [Stiftsbibliothek](#) and [eCodices](#).

On the historical continuum of medieval trans-mediality, the 1977 Xerox commercial for a high-speed photocopier serves as an appropriate medial hinge between the typographic and the digital ages of medieval remediation. Brother Dominic's embrace of the computerized efficiency of the Xerox 9200 looks back to the medieval manuscript's replacement by print (under the formal material belief of transparent fidelity of source content), and forward to the phenomenon of hyper-mass production that digitality enables and enacts. On Dec 31, 2013, the British Library's "Medieval manuscripts blog" whose posts on the library's medieval holdings without exception are heavily populated by digitally cut manuscript images, celebrated reaching the milestone of one million hits to their site,

appropriately enough, with a series of digitally excised manuscript images (Biggs and Harrison) (*figure 7*). Once digital, the opportunity to mass produce of a remediated copy of a medieval artifact accelerates exponentially, as every time a digital image is viewed., it is also reproduced on a user's screen. Twitter accounts known for posting medieval manuscript images often have thousands of followers, and popular manuscript images are retweeted hundreds of times, creating potential digital reproductions numbering in the tens or even hundreds of thousands for a single digital image of a medieval object.

31 DECEMBER 2013

One Million Hits and Counting!

It would be impossible for us to convey in words our excitement at reaching the milestone of one million hits to our blog, so we won't even try! Below are a few images that come close to adequately representing our feelings. Thank you all so much for your comment and your support, and we look forward to bringing you much more manuscript joy in future!



Detail of a friar playing music and a nun dancing, from the Maastricht Hours, [Stowe MS 17, f. 38r](#)

Figure 7. The British Library's medieval manuscript blog celebrates its one-millionth hit. Image grab of this online, digital blog reproduced **with permission** under an Attribution 2.0 Generic Creative Commons License.

For example: on September 27, 2012, in response to an image posted by Erik Kwakkel of a manuscript illumination featuring an angry cat, Emir O. Filipovic, a medieval historian at the University of Sarajevo tweeted an image of cat's paw prints on a medieval manuscript. This image then went viral, and has been retweeted 200 times from Filipovic's account, in addition to being retweeted untold times from other accounts. In November of 2015, the "Weird History," an account with 192,000 followers, retweeted the image again, which was then retweeted from this account 833 times. In 2014, the average number of followers of a Twitter account was an estimated 126 (Bullas). Without considering all the other retweets of this image that occurred from numerous other accounts, the Weird History tweet and retweets alone potentially created more than a quarter of a million digital reproductions of this image of medieval manuscript cat prints for viewers. In a slightly less spectacular mode, on July 17, 2014, Erik Kwakkel (16,400 followers) tweeted a digital excerpt of a thirteenth-century manuscript displaying a "Medieval dachshund made out of words" from British Library Add 21160 (*figure 8*). At the time of writing, this image has been retweeted 309 times from Kwakkel's account alone, resulting in up to 55,000 reproductions of the digital surrogate, not counting secondary retweets from subsequent accounts. That's a lot of medieval dachshunds made out of words that are now made out of pixels.

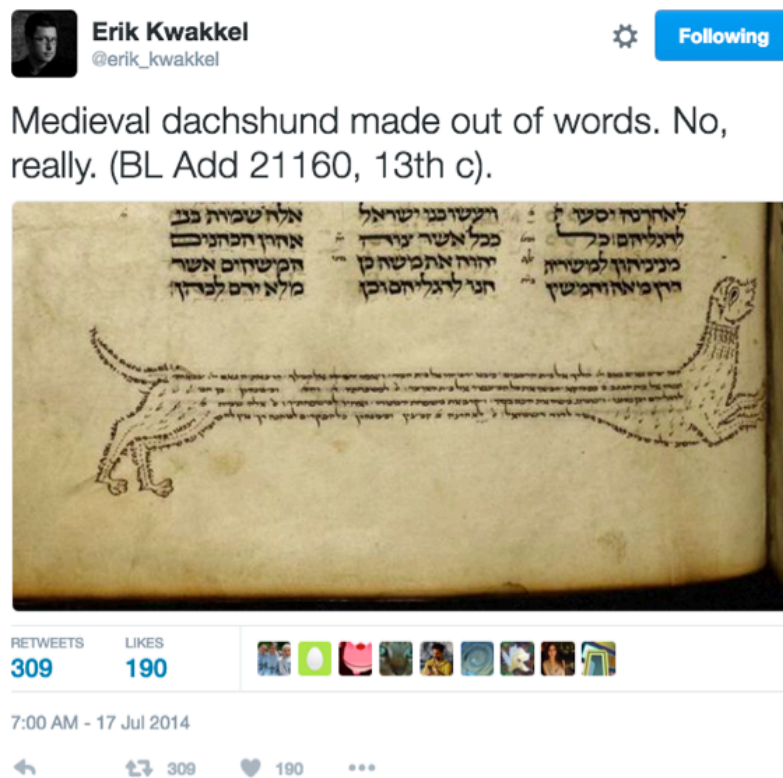


Figure 8. A textual medieval dachshund turns digital on Twitter. Erik Kwakkel, Twitter.com, 17 July 2014, 7:00am Reproduced with permission of the original poster, though the author of this essay does not agree that such permission needs to be obtained. #remediationfail

No, really, Kwakkel tweeted along with the dachshund's image. No, really. It will be tempting, instinctive, even, for many readers of this essay to discount such medieval digitality as inconsequential, and only tenuously related to earnest academic inquiry. The formal materiality of digital media and the largely ephemeral nature of on-screen reproductions heightens their demotic status as medieval material. Like our Old English Amalarian text, they've lost too much of their source to be taken seriously. But they remain real. But the capacity of the digital is also to increase as well as reduce. Whatever their origin and whatever the intent of production (information, idiosyncrasy, intellectual cuteness, humor), the digital reproduction of medieval materials creates, *in toto*, a massive new media economy of the medieval, one largely outside the original media's forms and informational identity. The illusion of metonymy persists as a mostly imaginary link back to a "real" and complete source, as the digital surrogate can never take a viewer directly back to the medieval material artifact, and as such replaces it. These moments of the digital medieval are both ephemeral and archival media at once, as users regenerate sources as vehicles for new communication and purposes (Ernst 95). They appear on screen and then depart – and yet persist as documented, time-stamped, stored and retrievable. In this respect, they are not unlike eighteenth and nineteenth century series of manuscript illuminations, carefully cut out of manuscripts and framed, and so decontextualized they became new media objects in their own right. New medieval media still manufacture a sense of the medieval past within the technological present, a circulating cultural currency in what might be termed a shadow economy of medieval mediality, but one whose scale of broadcast dwarfs that of the original object. To ignore their presence is to ignore how the medieval past is reproduced today by scholars and the popular world at large. It is also to ignore the transformational function of medieval digitality. These transient media now circulate in to a wholly different media infrastructure, where their digital, plastic nature allows them to act not only as an archive of the past, but an active communication of new information in the present.

Remanent, Cybernetic, Digital

All these instances of modern mediality reduce the medieval past for present purpose through the formal materialities they apply to medieval media. Matthew Parker's sixteenth-century erasure Old English text was a remanent act that deleted medieval information and materially encoded emergent modern attitudes towards source and copy. Xerox's supersessionary Brother Dominic campaign functioned in a similar mode, as the desire to supplant medieval modes of reproduction with computerized ones reproduced and propagated a particular, popular construction of what the Middle Ages *is*. The digital reproduction of medieval media effaces aspects of medieval sources – most significantly by replacing their materiality of substance with a digitality of visual representation that moves the medieval media object into a new phase of its transmediality. In the digitally remanent modes of inquiry we now invariably undertake in our methods of study of the medieval period, we always need to be thinking about what is elided in our own hermeneutic and material approaches to what survives from the past, what new modes of meaning such elision produces in turn.

Likewise, the body endures in the media. We need to understand the nature of our own cybernetic engagement in this reproduction and transmission of new formal materialisms. The eleventh-century editing Anglo-Saxon editing of Amalarius's text on bells reveals a shift from the textual nature of allegorical meaning to a more immediate feedback loop of bodies, texts and technology – fleshy limbs and vocal cords merging with metal bells, ropes and wooden yokes to broadcast in the service of Christian liturgy and scripture. Manuscript and bell function within these medieval, cybernetic ecologies of media, just as TV commercials about monkish scribes and computerized Xerox photocopiers temporally extend such structures into the modern. Part of the human condition is to serve as a medium for machines - we serve as the conduit of information, the input and output of communication between non-human entities; to revise McLuhan, humans also extend the machines (Levi-Bryant 30-35). The circuit(ry) of bodies and material technologies of reproduction continues today in our constant engagement with medieval digitality.

Desiring the "whole picture" remains a central, unattainable *telos* for the study of the past, an imaginary singularity, a complete encoding, a signal stripped of noise. The Middle Ages exists only as a forensic entity, accessible only from the media that endures, and remade through the process of its remediated recovery and reproduction. Medieval digitality reminds us of the impossible nature of medievalist desire – media never serve as a high-fidelity record of the past; it is always subject to ongoing human and technological intervention. One might view this as a dissolving of the Middle Ages before our eyes, like the erasure of parchment, or lost cuttings from a manuscript.

But, no.

We live in an age of multiple, regenerating Middle Ages, whose past continues to thicken in the present. When we digitize the medieval past, clicking, cutting, pasting, typing and clicking again, scrolling with our fingers, and scanning with our eyes, encoding our emotional responses digital texts and symbols, always sending, always receiving, we *add to* the Middle Ages though new practices, new formalisms of technological curation. When we do so, we join the imaginary monk who made five hundred copies of his manuscript with a computer and called it a miracle. We join the real, now erased, Anglo-Saxon subjects, whose hands pulled down on the rope of Scripture, moved the iron tongue of preaching, and rang the brass-ore bell, broadcasting the medieval world through their words, their images, their bodies, their machines.

Coda

The day after I finished the first draft of this essay, I went to my university's Special Collections to participate in the collection of medieval manuscript DNA for the EU-funded CodeX project. Proteins from the samples are analyzed to match their DNA profiles to animal species. The point of such work is to contribute to a growing database of medieval animal DNA that will eventually reveal much about the nature

of medieval livestock and their social uses, as well as the animality and production of medieval documents (Teasdale *et al.*). To gather samples non-destructively, one has to literally try to erase the parchment – rubbing a special eraser over the same (blank) spot on a page so the friction attracts molecules from the parchment to the eraser, which are then extracted through mass spectrometry of the eraser debris generated from the rubbing. It's tedious but fascinating labor. The harder one tries to erase, the more eraser debris, and therefore parchment DNA, one generates. As I sat there, erasing way at a small, fourteenth-century collection of sermons, I first thought about the marvelous durability of the parchment before me, and how because of this quality Matthew Parker or his associate finally gave up trying to erase the Old English excerpt of Amalarius's *Liber Officialis*, ratifying its remanence. Then I realized how I was collaborating in a new, remanent and cybernetic cycle of media, bodies (human and animal), and new technologies, transforming medieval materials once more into modern data. Of course, I tweeted a photo.

Works Cited

- Amalarius of Metz. *On the Liturgy (Liber Officialis)*, vol.2. Ed. and trans. Eric Knibbs. Dumbarton Oaks Medieval Library. Cambridge, MA: Harvard University Press, 2014.
- Arnold, John H. and Caroline Goodson. "Resounding community: the history and meaning of medieval church bells." *Viator* 43.1 (2012): 99-130.
- Biggs, Sarah J. and Julian Harrison. "One Million Hits and Counting!" *Medieval manuscripts blog* (British Library). December 31, 2013.
<http://britishlibrary.typepad.co.uk/digitisedmanuscripts/2013/12/one-million-hits-and-counting.html>.
- Bolter, Jay David, and Richard Grusin. *Remediation: Understanding New Media*. Cambridge, MA: MIT Press, 2000.
- Born, Erik. "Media Archaeology, Cultural Techniques, and the Middle Ages: An Approach to the Study of Media before the Media." *Seminar: A Journal of Germanic Studies* 52, no. 2 (2016): 107-133.
- Bourgain, Pascale. "The Circulation of Texts in Manuscript Culture." *The Medieval Manuscript Book: Cultural Approaches*. Eds. Michael Johnston and Michael Van Dussen, 140-59. Cambridge, UK: Cambridge University Press, 2015.
- Bullas, Jeff. "11 Tips to Double Your Twitter Followers." March 7, 2014.
<http://www.jeffbullas.com/2014/03/07/11-tips-to-double-your-twitter-followers/>.
- Chazelle, Celia. "Amalarius's *Liber Officialis*: Spirit and Vision in Carolingian Liturgical Thought." *Seeing the Invisible in Late Antiquity and the Early Middle Ages: Papers from "Verbal and Pictorial Imaging: Representing and Accessing Experience of the Invisible, 400-1000" (Utrecht, 11-13 December 2003)*. Eds. Giselle de Nie, Karl F. Morrison, and Marco Mostert, 327-57. Turnhout: Brepols, 2005.
- CodeX. University of York. <https://www.york.ac.uk/archaeology/research/current-projects/codex/>.

- "DigiBarn TV Features: "Xerox Monks" Classic Superbowl ad for Xerox 9200 Duplicating System and other commercials in the "Xerox Monks" series by Allen Kay." <http://www.digibarn.com/collections/movies/digibarn-tv/xerox-monks/index.html>.
- de Hamel, Christopher. *Cutting Up Manuscripts for Pleasure and Profit* (The 1995 Sol. M. Malkin Lecture in Bibliography). Charlottesville: Book Arts Press, 1996.
- Dumville, David. "Breton and English Manuscripts of Amalarius's *Liber Officialis*." *Mélanges François Kerlouégan*. Eds. Danièle Conso, Nicole Fick and Béatrice Poulle, 205-14. Paris: Les Belles Lettres, 1994.
- Ege, Otto F. "I am a Biblioclast," *Avocations* 1 (1938): 516-18.
- Ernst, Wolfgang. "Archives in Transition: Dynamic Media Memories." *Digital Memory and the Archive*. Ed. Jussi Parikka, 95-101. Minneapolis: Univ. of Minnesota Press, 2013.
- _____. "Medien' im Mittelalter? – Kulturtechnische Retrospektive." *Goetz Mediävistik im 21. Jahrhundert: Stand und Perspektiven der internationalen und interdisziplinären Mittelalterforschung*. Eds. Hans-Werner Goetz and Jörg Janut, 347–57. Munich: Fink, 2003.
- Filipovic, Emir O. "Speaking of cats . . ." Twitter post, Sept. 27, 2012, 8:08am. <https://twitter.com/emirofilipovic/status/251337591130038274>.
- Foys, Martin. "A Sensual Philology for Anglo-Saxon England." *Postmedieval* 5.4 (2014): 456-72.
- Geoghegan, Bernard Dionysius. "Information." *Digital Keywords*. Ed. Benjamin Peters, 173-183. Princeton: Princeton Univ. Press, 2016.
- Graham, Timothy. "The Old English Prefatory Texts in the Corpus Canterbury Pontifical." *Anglia* 113 (1995): 1–15.
- Hanssens, Joanne Michaelae. *Amalarii Episcopi Opera Liturgica Omnia*, vol. 1. Vatican City: Vatican Apostolic Library, 1948.
- Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: Univ. of Chicago Press, 1999.
- Infoworld* 4.12. March 29, 1982.
- James, M.R. *A Descriptive Catalogue of the Manuscripts in the Library of Corpus Christi College, Cambridge*, vol. 1. Cambridge, UK: Cambridge University Press, 1912.
- Jones, Christopher A. *A Lost Work by Amalarius of Metz. Interpolations in Salisbury Cathedral Library*. London: Henry Bradshaw Society, 2001.
- Kay, Korey and Partners. "Xerox Monks TV Commercial (1977)." Archive.org, 00:01:00. Sept. 9, 2010. <https://archive.org/details/DigibarnXeroxMonksTvCommercial1977>
- Kirschenbaum, Matthew. *Mechanisms: New Media and the Forensic Imagination*. Cambridge, MA: MIT Press, 2008.
- Knibbs, Eric. "Notes to the Translation." *On the Liturgy*, vol.2. Dumbarton Oaks Medieval Library. Cambridge, MA: Harvard University Press, 2014.
- Kuhn, Markus. "Data Remanence." *Encyclopedia of Cryptography and Security* (2nd edition). Eds. Henk C. A. van Tilborg and Sushil Jajodia. Boston: Springer, 2011. 306.
- Kwakkel, Erik. "Medieval dachshund made out of words." Twitter post. July 17, 2014, 7:00am. https://twitter.com/erik_kwakkel/status/489771662347231232.

- ____. "Wearing a Book." Tumblr post. June 14, 2014, 11:18pm.
<http://erikkwakkkel.tumblr.com/post/88698949876/wearing-a-book-books-are-objects-to-read-from>.
- Livingstone, Jo. "Middle Pages." *Track Changes*. June 29, 2016.
<https://trackchanges.postlight.com/middle-pages-fa03e57e4766>.
- "Brother Dominic extols virtues of Xerox products." *Infoworld* 4.12. (March 29, 1982): 5.
- Manuscriptlink. <http://lichen.csd.sc.edu/manuscriptlink/>.
- MS 44. Parker Library. Corpus Christi College. Cambridge University, Cambridge, UK.
https://parker.stanford.edu/parker/actions/page_turner.do?ms_no=44.
- MS Cotton Tiberius D. xv. British Library. London, UK.
- NCSC-TG-025, "A Guide to Understanding Data Remanence in Automated Information Systems" (version 2). Rainbow Books, 1991.
<https://fas.org/irp/nsa/rainbow/tg025-2.htm#HDR 2 7>.
- Noel, Will. "The value of a material artifact . . ." Twitter post.
<https://twitter.com/WillNoel/status/745322683789877248>. June 21, 2016, 11:29am.
- Straw, Will. "Embedded Memories,," *Residual Media*. Ed. Charles Acland, 3-15. Minneapolis: University of Minnesota Press, 2007.
- Teasdale, M.D. *et al.* "Paging through history: parchment as a reservoir of ancient DNA for next generation sequencing." *Philosophical Transactions of the Royal Society B* 370.1660 (2015).
<http://rstb.royalsocietypublishing.org/content/370/1660/20130379>.
- Treharne, Elaine. "Fleshing out the text: The transcendent manuscript in the digital age." *Postmedieval* 4.4 (2013): 465-478.
- Trettien, Whitney. " Circuit-Bending History: Sketches toward a Digital Schematic." *Between Humanities and the Digital*. Eds. Patrik Svensson and David Theo Goldberg, 181-192. Cambridge, MA: MIT Press, 2015.
- "Xerox University – 1976." YouTube, 00:04:14. February 25, 2013.
<https://www.youtube.com/watch?v=8AfgL1HQLig>
- Wiener, Norbert. *Cybernetics or Control and Communication in the Animal and the Machine*. Cambridge, MA: MIT Press, 1961.
- Weird History, " Medieval cat's paw prints . . ." Twitter post. November 11, 2015, 7:41pm. https://twitter.com/weird_hist/status/664649151314067456.