Looking Backward: Print and Digital Futures of the Humanities

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What will be the future of the humanities in the digital age? The question has become as pervasive as its answers remain elusive. Although leading thinkers and practitioners of what is now widely known as the digital humanities have devoted much energy and creativity to this question, the resulting projects and practices primarily take the form of dispersed (if proliferating) experiments. Digital humanities initiatives, such as web-based archives and digital research or teaching "labs", rarely end up well integrated into university policies, curricula, and departments. Even the most successful of those initiatives struggle with their long-term sustainability. Few have demonstrated how universities and departments will ultimately balance new digital methods of research and teaching with the approaches that we might now call "traditional." We find ourselves in early stages of a transition, it seems—from the institutional and disciplinary practices that shaped the humanities as we know them in the age of print, to the new (and old) ones that will enable us to continue to preserve our printed past and explore its convergence with the digitally dominated present.

If debates about the future of the humanities are only just beginning to find answers, that need not be discouraging news. On the contrary, understanding the current state of the humanities in this way promises an escape from the discourse of crisis accompanying that often accompanies such discussions. As the media scholars among us know well, transitions motivated by media change are not unique to the digital age. Media history from the middle ages to the present contains countless examples (some well known, others long-forgotten)

Comparative Textual Media: Transforming the Humanities in the Postprint Era. N. Katherine Hayles and Jessica Pressman, eds. U of Minnesota P, 2013.

A New Republic of Letters: Memory and Scholarship in the Age of Digital Reproduction. Jerome McGann. Harvard UP, 2014.

Virtual Modernism: Writing and Technology in the Progressive Era. Katherine Biers. U of Minnesota P, 2013.

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of experimentation with cultural forms that new technologies have inspired and enabled; of the remediation that takes place as old media converge with new; and, ultimately, of the reordering of media and other cultural systems as those convergences lead to new practices and representational regimes. Exploring that history can help us to, borrowing Stephanie Boluk's words from a recent reflection on the Electronic Literature Organization, "slow down and look back as a means to move forward."[1]

[P]eriods of media transition offer particularly revealing vantage points from which to understand cultural texts, the systems in which they participate, and the social negotiations that they inform.

Within media studies in recent decades, scholars have explored the idea of looking backward to gain perspective on current transitions, as well as previous ones, through research focused on recovering the debates and possibilities that existed "when old technologies were new" (Marvin).[2] As William Uricchio explains, "The history of 'old media' developments, if freed from the teleological determinism which so often accompanies retrospective considerations, can provide a surprisingly diverse range of alternative concepts and consequences" (128). A widely read example of the insights resulting from such work is Lisa Gitelman's investigation of Edison's phonograph which argues that its eventual development into a commodity used for listening to music at home demonstrates what happens "when media are new, when their protocols are still emerging and the social, economic, and material relationships they will eventually express are still in formation" (*Always Already New* 15). Like the once-new media technologies that came before and after it, from handwritten scrolls to the Gutenberg press to the Internet, the phonograph demonstrates how new media serve as "socially embedded sites for the ongoing negotiation of meaning as such" (6). Studies like this one have shown how periods of media transition offer particularly revealing vantage points from which to understand cultural texts, the systems in which they participate, and the social negotiations that they inform.[3] More recently, such research has also helped to stimulate a new approach to the discipline that is sometimes called "Comparative Media Studies."[4]

The influence of comparative media studies is evident in *Comparative Textual Media: Transforming the Humanities in the Postprint Era* (2013). Editors N. Katherine Hayles and Jessica Pressman describe their founding premise as follows:

> As the era of print is passing, it is possible once again to see print in a comparative context with other textual media, including the scroll, the manuscript codex, the early print codex, the variations of book forms produced by changes from letterpress to offset to digital publishing machines, and born-digital forms such as electronic literature and computer games. (vii)

Comparison across these and other artifacts of media history, Hayles and Pressman assert, provides a means of grappling with what they consider as the primary challenge facing today's humanities scholars: "to rethink categories, courses, and faculty hiring in ways that take more than a superficial account of digital technologies and their implications for disciplines that have been operating on a print-based model of scholarship" (vii). To address this challenge, Hayles and Pressman uniquely narrow the wide variety of texts typically approached through comparative media studies. They limit the book's scope to writing-centered—or "textual"—forms of media which "provide primary access to the thoughts, beliefs, discoveries, arguments, developments, and events that have preceded us; they hold the key to understanding the past, analyzing the present, and preparing for the future" (ix). This privileging of writing proves both provocative and productive. *Comparative Textual Media* insists on the value of the very texts—especially books and what has become known on digital platforms as "long-form" writing—that often end up at the center of the same kind of crisis narratives about the humanities mentioned above. In addition, the book reframes conversations that now characterize (even if they have never precisely defined) the digital humanities. As the editors explain, "Our purview here, however, is broader than the digital humanities because it advocates *comparative study of all text-based media*, not only the digital" (xii).[5] As a result, *Comparative Textual Media* is not just digital humanities by another (admittedly less alluring) name, but rather a carefully considered attempt to launch a new, perhaps more inclusive, phase of the conversation that digital humanists have started.

A number of the volume's contributors have played foundational roles in the digital humanities and their arguments seem to resonate here on a new scale.[6] Rita Raley, who has worked alongside Alan Liu to make UC Santa Barbara's Department of English a model of integrating digital scholarship and literary studies, opens the volume by demonstrating how digital media require new kinds of analysis. Analyzing public art installations that make use of text messaging, Raley shows how such projects constitute "new scenes of reading and writing . . . [that] can help us more fully to understand the dynamics of ephemerality and vernacularity . . . at the heart of the way we read and write now" (7). Matthew Kirschenbaum, another leader of digital scholarship known for his work on a variety of initiatives most recently through the Maryland Institute for Technology in the Humanities (MITH), further underscores the need for new analytical frameworks to understand twenty-first-century new media. He argues that, "In the arena of literature and literary studies, a writer working today will not and cannot be studied in the future in the same way as writers of the past" (54). For Kirschenbaum, it is "the category of the born-digital"

that has brought about this state of affairs—what he calls in his essay's title "the .txtual condition" (54). If the literary writing that will interest the scholars of the future now takes digital forms, it requires new archival practices enabling access to "computers and hard drives and USB sticks and floppy diskettes," as well as the "network identities" that authors construct through social media (55, 56). Kirschenbaum draws on his own experience confronting this challenge at MITH to argue that the practical archival questions presented by digital media come accompanied by theoretical ones. For example, the digital environment in which authors now write and promote their work destabilizes what print-age scholarship defined as the primary source, "forcing a confrontation between our established notions of authority and authenticity and the unique ontologies of data, networks, and computation" (59). Even as Raley and Kirschenbaum show how digital texts require new archival and critical methods, their essays indicate that while digital media are different (or new) in important ways, they also participate in (and make sense in relation to) a much longer media history.

Essays by William A. Johnson, Gitelman, and Jessica Brantley, among others, powerfully analyze media systems at various points in history to shed light on their role in shaping (and shifting) notions of authorship, identity, community, and experience. Johnson investigates the papyrus bookroll, itself once a new medium adapted in ancient Greece from Egypt, to understand how it shaped the reading practices of Greco-Roman antiquity. He identifies what are "(to us) odd, impractical features . . . lack of word separation, minimal punctuation, lack of structural indicators," arguing that such texts reveal "ancient reading behaviors [that] work together in a system that is symbiotic and consistent in its own terms, however odd that system may seem to us" (107, 115). Ultimately, the distinctive qualities of Greco-Roman reading systems remind us that our own experiences of books and reading are also shaped by presumptions and protocols, which are not always self-evident without the benefit of historical comparison.

Similarly, Gitelman considers the term "print culture" to ask "how widely, how unanimously, and how continuously can the meanings of printedness be shared, and what exactly are their structuring roles?" ("Print Culture" 185). Drawing on data from the *U.S. Census of Manufactures* from the early twentieth century, she finds that nearly one-third of the output of printing presses at the beginning of the twentieth century fell into a category sometimes called "job printing," made up largely of items "printed for businesses doing business" (189, 190). These types of documents lead Gitelman to conclude that "much of the output of job printing seems to have been just printing, not publication. It wasn't meant to issue into the public arena" (190). In the final analysis, Gitelman's "thought experiment"

ends up as a sort of cautionary tale (186). She suggests that "print culture" may well constitute "a sprawling catchall" that distorts the role of books—or more technically—the codex in the history of print (185). With this conclusion, the essay delivers on the collection's promise of interrogating assumptions through historical inquiry while reflecting on some ways that scholars might investigate the limitations of such an approach.

Brantley's consideration of "the pre-print media ecology of the Middle Ages" applies a similar lens to another premise of *Comparative Textual Media*'s approach, what she calls "the explanatory power of novelty per se" (203). In her words, "Though it is no doubt true that periods of dramatic media shift are particularly revealing, ongoing smaller variations more fundamentally shape historical landscapes of communication" (203). This is the case, she argues, in the Paternoster diagram in the Vernon manuscript from late fourteenth-century England. This image based on the seven petitions of the Lord's Prayer constitutes "the remediation of the prayer into a diagram" (210). By visually transforming "Latin into English and words into shapes," the diagram exemplifies the interplay of Latin and vernacular, orality and writing, and words and images within the media system of the Middle Ages (210). As for Gitelman, the lesson here is the need for historical specificity and attentiveness to role of medium (or interactions between media) in creating meaning: "Whether it is a painterly support, such as a canvas, or a technical support, such as a video projector, whether it is structures of guild training or the horizon of expectations established by a literary genre, the medium of an artwork sets up the historical field against which its makers and interpreters understand it" (215). If such conclusions start to sound a bit repetitive by the end of Hayles and Pressman's volume, they also point to what is perhaps its greatest strength: the book's ability to bring together scholars whose interests stretch from ancient scrolls to twenty-first-century video games in a way that showcases their common interests while demonstrating the value of their individual expertise. While *Comparative Textual Media* does not precisely answer the practical questions that its editors raise at the outset about rethinking categories, courses, and hiring for the digital age, it models a dialogue that might well be a promising future direction for the humanities: the kind of conversation characterized by diverse disciplinary and historical interests, and underpinned by common questions, which university-based humanities centers (and not just digital humanities centers) are currently pursuing throughout the US.

This is not to say that the digital humanities have not left their mark on the potential future of the humanities that *Comparative Textual Media* rehearses. The book embraces the "ethic of making"

that has become one of the field's defining characteristics (xv). In the editors' words, "conceptual understandings are deepened and enriched by practices of production" (xv). While demonstrations of the insights that result from combining thinking with doing appear throughout the various essays, an intriguing and original example is Stephanie Boluk and Patrick LeMieux's consideration of the computer game *Dwarf Fortress.* Boluk and LeMieux read the game in relation to "Dwarven Epitaphs," narratives written by the game's players about the inevitable failure of the Dwarven societies that they built in the game. At first glance, Boluk and LeMieux's essay simply demonstrates the type of analysis that twenty-first-century user-driven texts necessitate: the game's narratives are as various as its players; there is no text without its community of users.

Yet their argument goes beyond this commonplace of game studies to suggest that players' narratives of their own experiences model a new method of understanding history. In response to a game that, itself, "simulates contemporary models of historical inscription" by operating "according to the same automatic and serialized logic as telephone records, bank statements, GPS systems, and email exchanges," *Dwarf Fortress*'s players engage in their own writing practices that reveal how meaning is made within the twenty-first century's media system (149). The players' reflections on the game and the systems that may have shaped their experiences "relocate abstract, autonomous software into human spheres of play and teach us to recognize the actions of the nonhuman agents with which we constantly collaborate in all aspects of contemporary life" (150). In the context of the essay, this is a contemporary lesson. It shows how humans may respond to an age in which history, "with the rise of digital inscription technologies, . . . will not be written by human hands alone" (125). In the longer view constructed by this book, the community of *Dwarf Fortress* players also models the type of combined critical and practical engagement that may ultimately be necessary to achieve the historical and media specificity called for throughout the various essays that Hayles and Pressman have collected.

Another well considered and original reflection on the past and possible futures of the humanities appears in Jerome McGann's *A New Republic of Letters: Memory and Scholarship in the Age of Digital Reproduction* (2014). While Hayles and Pressman center on "transforming the humanities in the post-print era," McGann frames his own inquiry somewhat differently. He asks, "As the technology of cultural memory shifts from bibliographical to digital machines . . . what do we do with the books?" (1). Informed by his own involvement in several foundational digital humanities projects, including *The Rossetti Archive* and *IVANHOE*, his reflections posit humanities scholars as the rightful leaders of a conversation in which they have too

often "actually *chosen* an adjunct and subaltern position. We have been invisible" (130). McGann brings impressive clarity to the question of how scholars might best contribute: "It is a problem with two programmatic faces: how to pursue scholarship into a future that will be organized in a digital horizon; and how to secure access to our inheritance of printed scholarship within that new framework" (134). Like Hayles and Pressman, McGann identifies a need that builds on the digital humanities and extends into the humanities at large.

McGann's unique perspective on the best way to address this need derives from his view that the critical scholarly edition has served as humanities scholars' primary tool for preserving and interpreting "our cultural heritage" (141). Furthermore, he asserts that philology holds the key to updating interpretive methodologies to confront the challenges of the digital age. In his opening section, McGann skillfully builds that argument through a tour of philosophical debates illuminating the history of humanities scholarship (and, until recently, its close ties to philology)—from those of Ulrich von Wilamowitz-Moellendorff and Friedrich Nietzsche in Germany at the end of the nineteenth century, to Jean-François Lyotard's attempts to rethink the organization of French universities at the end of the twentieth, to the role of theory in reshaping historical inquiry in the late twentieth and early twenty-first centuries. McGann charts a gradual move away from philology's focus on the materiality of texts, which ultimately "shifted the disciplinary foundation of literary studies from procedural thoroughness to conceptual integrity" (69). His analysis is highly attentive to the benefits that resulted from this change. Nietzsche's early critiques of philology recognized a serious lack in its method: an inability to recognize that "all history comes to us in few and fractured forms" (56). In the twentieth century, Pierre Nora's notion of "fragmented memory" mobilized Nietzsche's notion of genealogy to conceptualize a view of history that could "preserve and archive the past in such a way that the vast network of possible connections between the past and future can be seen as a personal responsibility" (62, 65). In a different way, Paul Ricoeur's philosophy built on Nietzsche and found in narrative a means to engage "the ethical power of plotted narrative" (65). Yet ultimately, McGann also calls the theoretical turn that these scholars helped to mobilize an "ambiguous legacy" (68). As the second section of his book makes clear, he sees a need for a shift "From Theory to Method."

McGann avers that "book technology" (and particularly the critical scholarly edition) holds the key to understanding how scholars have preserved and forgotten the cultural past, as well as how they might develop new methods for the future (4). In his words, "As we now try to design digital systems that can simulate the [book] system's realizable possibilities—the possibilities that are known and recorded

as well as those that have yet to be (re)constructed—the history of book technology will take us back to the future" (124). Here McGann's book sounds quite a bit like *Comparative Textual Media*, insofar as it advocates a turn toward the past as a means of grappling with the questions facing those concerned with the future of the humanities.

McGann couples his historical analysis with candid reflections based on his own engagement with the digital humanities. The first of the lessons he draws underscores his view of the importance of history: "Digital humanists tend to see their traditional colleagues and the inherited research system as needing to be brought up to date. And while that view has its truth, equally true is the digital community's increasingly attenuated historical sense" (14). These words constitute an authoritative call to action when one considers that they come from one of the field's own founders. Later, writing about *The Rossetti Archive*—which he describes as a project with the twofold objective of "explor[ing] the critical and interpretive capabilities of digital technology, and . . . creat[ing] a scholarly edition of Rossetti's work"—McGann confesses that the project's greatest limitation is the question of how it will be sustained in the future: "And here is the supreme irony of this adventure: I am now thinking that, to preserve what I have come to see as the permanent core of its scholarly materials, I shall have to print it out" (137).

This is certainly not the first time a digital humanist has articulated the challenges of sustaining a digital project. Yet, as a conclusion drawn from McGann's extensive experience, it emphatically underscores the degree to which questions about the future of the humanities remain unanswered. Moreover, as he reflects on the significance of early digital humanities projects, McGann reveals another reason for the value of historical analysis: "*The Rossetti Archive* and projects like it are most important, I now think, partly because they are already obsolete. Their own process of development has exposed the social and conceptual limits of the digital ecology that spawned them" (137). *The Rossetti Archive* appears here as a recent example of the experiments that have occurred throughout history when forward-thinking cultural producers have responded to the possibilities that they have seen within a period of media transition. One is left to think of digital humanists, like McGann himself, as part of a vanguard that may now be seeking to broaden its ranks.

Katherine Biers's *Virtual Modernism: Writing and Technology in the Progressive Era* (2013) intersects with this conversation as an example of the kind of materially grounded history that *A New Republic of Letters* and *Comparative Textual Media* both encourage. Biers's debut monograph is not a reflection on the humanities, but an attempt to gain "critical purchase" on an earlier period of media change, that of the diversifying mass culture of pre-World War I

America (2). Exploring how notions of the literary competed with emerging mass-media forms of the period, she argues that modernism in the US attempted to develop the potential of textual media in literary form within a changing media landscape: "New media technologies in particular were jeopardizing language's special status as the predominant means of structuring experience" (4). Biers finds that Stephen Crane, Henry James, James Weldon Johnson, Djuna Barnes, and Gertrude Stein "often claim, in implicit and explicit ways, that the experience of language's *potential* to refer offers the best way to find common ground in a world governed by media other than print" (4). In the context of their transitional media moment, these writers proposed a kind of redemption for literature, one that does not merely react against mass media, but converses with and, at times, embraces it.

Crane, James, Johnson, Barnes, and Stein mobilized their creative engagements with mass media through what Biers calls "a poetics of the virtual" (1). Grounded in the philosophy of William James and Henri Bergson, the virtual constitutes a kind of middle ground that once served to reorient nineteenth-century philosophical debates pitting idealism against empiricism. Like James and Bergson, Biers argues, the modernist writers she considers demonstrated an interest in a type of experience that "belongs to the self and extends beyond, occupying a liminal position at the fringes of self and world" (3). In an age when writers found themselves competing with "immersive multimedia experiences and spectacular amusements on offer within the burgeoning culture industry," Crane, James, Johnson, Barnes, and Stein presented their own virtual experiences to readers "by evoking them in language, through shifts in grammatical tense, modality, subjunctive mood, disjunctive juxtapositions of genre, compositional principles of assemblage, and elliptical and indirect forms of audience and reader address" (1, 2). Ultimately, this "virtual turn" afforded those authors the means of gaining perspective on the media landscape in which they participated (17). Plus, it enabled them to explore the potential for literary language to chart a different course for mass culture, one that held onto the very notions of progress and totality that the new media technologies of the period seemed to fracture.

This sense of transition and potentiality—of being caught in between an older media regime and a still-emerging new one—imparts analytical and creative force to Biers's argument. She finds in each of her key texts "a 'modernist' formal experimentation, inspired by the deforming and subject-defying energies of mass culture, [that] is still tied to realist and naturalist convictions about the representational power of language, the importance of progress, the viability of the public sphere, and the reality of common experience" (7). From this vantage point, Biers gives an illuminating reading of Crane's "The

Open Boat" as marking his emerging awareness of "the inchoate critical and analytical difference between the mass public sphere and literary culture" (68). The story relates its own vision of the future that literary writing might find in such a context by suggesting "that the experience of language itself might offer a way to save the American writer's mission from being swamped by a rising tide of spectacular entertainments" (68). The correspondent in "The Open Boat" finds a way, however fleetingly, for the experience of thought and wonder to overcome the blinding impact of sensation.

Each of Biers's subsequent readings repeats this act of locating a literary text and its author on a threshold between new and old media forms and related representational regimes. Situated in this way, James's late style resulted from rethinking his writing in the context of "the accelerated and expanded pictorialism enabled by illustrated print culture, photography, and early film" (73–74). Fueling his dense and image-centered writing starting from the mid-1890s onward is "the hope that the experience of a distinctively linguistic potentiality or citationality might help to rescue the literary itself as a site for the cultivation of reason" (74). Johnson's *Autobiography of an Ex-Coloured Man* (1912) explores another kind of potentiality by serving as "a crucible for the production of what Johnson called new 'mental attitudes' about race" (112). At a time when the rising popularity of the phonograph and ragtime music were inspiring a conversation about the distinctiveness of US music that too often chose to whitewash racial differences, Biers argues, Johnson's novel draws on ragtime culture to construct a "'phonographic' voice" that celebrates African American identity and that "inaugurates black modernism" (112, 138). Stein appears in Biers's analysis less as a fully fledged modernist than a media-savvy intellectual. Her 1930s writings, which accompanied her highly publicized US speaking tour, exhibit Stein straddling two worlds—modernist exclusivity and the publicity enabled by mass-circulating newspapers. Stein's own shrewd engagement of the resulting celebrity that she experienced leads her to contend that "the big city newspaper's one hope of replicating the face-to-face interaction of small town life without doing anything differently lies in the celebrity" (194). In each case, situating a literary text in the midst of a changing media landscape makes it possible for Biers to recover a forgotten set of concerns—and possible solutions—that once filled these texts with a sense of relevance, novelty, and potentiality.

If the potentiality once inhering in these texts sounds a little too optimistic at times, it helps to keep in mind that our twenty-first-century moment of media transition has its own ambitious claims of the possibilities of restoring individual agency, empowering communities, and even creating new and improved public spheres. Indeed,

Biers notes that her account of what we might call liminal literary modernism "stems from a set of frankly presentist concerns" (6). For Biers, the most pressing of these concerns appears to be one of terminology: "My hope is that attention to the late nineteenth- and early twentieth-century virtual will put the pervasive equation between the virtual and the digital to rest" (6). Yet the significance of her analysis extends further than she seems willing to claim. One way of articulating what Biers shies away from describing herself is to say that the writings she studies contain a similar "ethic of making" that fueled the insights delivered by *Comparative Textual Media* and *A New Republic of Letters* (Hayles and Pressman xv). For their acts of combining creativity and critique, Crane, James, Johnson, Barnes, and Stein may well be considered the vanguard of a prior moment of media in transition. In turn, *Virtual Modernism* itself may model the kind of historically specific and materially attentive (if not strictly philological) scholarly work on which McGann, along with Hayles and Pressman and their contributors, rest their visions of the future of the humanities.

  Comparative Textual Media, A New Republic of Letters, and *Virtual Modernism* suggest that looking backward may provide a way to unite humanists at a time when, as McGann puts it, "a major task lying before us . . . is to design a knowledge and information network that integrates, as seamlessly as possible, our paper-based inheritance with the emerging archive of born-digital materials" (22). In addition, and perhaps more surprisingly, the books considered here indicate that writing—and especially literary writing—enables greater understanding of our cultural past and of the ways in which scholars have mediated, archived, reimagined, and, at times, forgotten it. At a time when the future of the humanities is far from certain, it is invigorating to see these books engaging literary texts and media contexts that may be old, or even obsolete, but are far from irrelevant.

Notes

1. Boluk's reflection on the future of the Electronic Literature Organization, which has played a leading role in shaping the digital humanities, indicates that digital humanists have already started a conversation about the field's intersections with media history. Another example of this emerging conversation has taken place for the past two years at the Society For Cinema and Media Studies annual conference, in panels organized by Miriam Posner, Jason Mittell, and Jason Rhody.

2. These words come from the title of Carolyn Marvin's influential book, *When Old Technologies Were New: Thinking about Electric Communication in the Late Nineteenth Century* (1998). Other relevant studies that apply a similar approach include Friedrich Kittler, *Discourse Networks 1800/1900* (1992); Gitelman and

Geoffrey Pingree, *New Media, 1740–1915* (2003); and Asa Briggs and Peter Burke, *Social History of the Media: From Gutenberg to the Internet* (2005).

3. David Thorburn and Henry Jenkins have defined and theorized such periods by identifying what they call an "aesthetics of transition" that takes the form of "an acute self-consciousness" among cultural producers at certain key moments in media history (4). During such intervals, new technologies "provoke thoughtfulness, reflection and self-examination in the culture seeking to absorb it" (4). See *Rethinking Media Change: The Aesthetics of Transition* (2004).

4. This is the language used at MIT, through its Comparative Media Studies/ Writing program, in which Jenkins, Thorburn, and Uricchio have played founding and leading roles.

5. The editors define the digital humanities as "projects aiming to digitize historical information through virtual and augmented reality; text analytics intended to analyze corpora too vast to be read in their entirety ('big data' projects); and theoretical inquiries into the nature, effects, and specificities of different media" (xii).

6. Hayles herself, of course, has pioneered the analysis of electronic literature as a site for recognizing the cognitive and cultural changes brought about by digital media. Pressman, Hayles's former student, has recently published her own thoughtful contribution to this field with her book, *Digital Modernism: Making It New in New Media* (2014).

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