

from patrons to the printing press, and sometimes even the writing process itself, as “editing” is invoked in examples of life writing from memoirs to *romans à clef* (5).

These shortcomings are especially unfortunate in light of the work this volume aims to do. Reading over the essays, I often wished they had gone through more rounds of revision or wondered how a faulty explanation of a concept had made it past review. This is all the more regrettable because the volume’s intervention is crucial and necessary. If an editor can do all the things this volume argues — clarify the histories of these texts, advocate for their essential importance, contextualize them attractively for decades more readers — then, as the best essays in the volume show, an editor is what the Harlem Renaissance most needs now.

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## Works Cited

- FAREBROTHER, Rachel, and Miriam THAGGERT. 2021. “Introduction: Revising a Renaissance”. In *A History of the Harlem Renaissance*, edited by Rachel FAREBROTHER and Miriam THAGGERT, 1–18. Cambridge: Cambridge University Press.
- MITCHELL, Ernest Julius. 2010. “‘Black Renaissance’: A Brief History of the Concept”. *Amerikastudien / American Studies*, 55.4: 641–665.
- WRIGHT, Richard. 1994. “Blueprint for Negro Writing”. In *Within the Circle: An Anthology of African American Literary Criticism from the Harlem Renaissance to the Present*, edited by Angelyn MITCHELL, 97–106. Durham: Duke University Press.

KIRSCHENBAUM, Matthew. 2021. *Bitstreams: The Future of Digital Literary Heritage*. Philadelphia: University of Pennsylvania Press. Pp. 145. ISBN 9780812253412, Hardback \$65.00. ISBN 9780812224955, Paper \$24.95. Ebook, \$18.99.

Matthew Kirschenbaum’s *Bitstreams* arises out of the 2016 A. S. W. Rosenbach Lectures in Bibliography at the University of Pennsylvania, originally organized under the rubrics of “the archive”, “the computer”, and “the book”. His thinking in this beautifully written and thoroughly researched book extends considerably beyond these guiding conceptual “fictions”, as he puts it, into bibliography as “a way of knowing, a habit of mind whose remit is nothing less than accounting for all the people and things that make meaning possible, each in their own irreducible individuality” (14).

He positions the book as a sequel to his work in *Mechanisms* (2008) on “formal” and “forensic” materiality, the way in which digital mechanisms intersect with computational regimes, the dust of the archive, and the rot of particular methods of preservation. In its investigation of particular and irreducible meanings, *Bitstreams* begins with a set of case studies in digital heritage and preservation and then moves back and forth between the materiality of its digital materials and the profound bibliographical and indeed ontological consequences of digital literary composition and preservation.

The “bitstreams” of the title “denotes any continuous sequence of bits for storage or transmission”, or in digital preservation, “a complete copy and surrogate for all data contained on some unique piece of storage media, sometimes also known as an ‘image’” (ix), but also more generally the increasing stream of digital cultural material moving to an uncertain fate. What would we do with the composition process of a latter-day poem like *The Waste Land*, Kirschenbaum asks, a poem with multiple stages of revision, many new “versions” and edits and copies, comments in Word from a good poet friend, penciled notes on a printout, final changes to a printer’s proof formatted through Adobe InDesign? The process of decoding such composition histories must attend to shifting regimes of computational and medium history, the shift from Apple’s Hypercard to advanced “desktop publishing” to the current mediation of cloud storage. This latter regime will pose particular problems for later bibliographers interested in digital literary heritage, Kirschenbaum acknowledges; he periodizes his work here in the regime that runs between the invention of desktop computers in the 1970s to the entrance of remote storage in the early 2000s.

Kirschenbaum’s first chapter moves between the case of Toni Morrison’s manuscript for *Beloved* (1987) and an inquiry into the archive in the age of digital preservation. The manuscript for *Beloved* survives in Princeton’s archives as a scanned digital document as well as partial Word document, its title page partially burned by a house fire, and its code rotted by time and transfers. This chapter investigates the harmonies between *Beloved*’s notion of “rememory”, “a way of naming a past trauma externalized beyond an individual consciousness”, and the returns to disk memory and remediation required to access the novel’s publication history. Like the ghostly reappearances of characters in Morrison’s novel, Kirschenbaum reads digital memory as “*always* unfolding amid a precarious temporality that cascades like the semantic relations of the bitstream itself, data only ever given meaning by other data” (31). Archival work, then, requires constant attention to infrastructural meaning and digital protocol preservation, as

well as “dusting”, a word like “archive”, “both noun and verb, a Janus-word that encompasses acts of both application and removal”, a word at play in Morrison’s writing as well (32). *Bitstreams* puts both Jacques Derrida’s and Morrison’s sense of archive and memory to work for the purposes of bibliographic thinking, in a beautifully resonant evocation of the ghostliness of digital memory itself, neither present nor absent, but re-membered by archivists, scholars, and readers alike.

The second chapter, “The Poetics of Macintosh,” is an impressively detailed media history of 1980s-to-1990s “desktop publishing”, in dialectical relation to the poetic work of William H. Dickey and of Kamau Brathwaite. Dickey used the early Macintosh program “Hypercard”, given a fascinating early history here, to write a series of erotic and personal Hypercard poems that Kirschenbaum reads as a “framework for experience” (49). Kirschenbaum employs a wide variety of scavenged materials to re-member Dickey’s work in its intended form: “the bitstream owes whatever persistence it has to the material idiosyncrasies of a wide variety of more or less resilient surfaces, conductors, and conveyances, all of them the essential prerequisites for the maintenance of the enduring ephemeral” (53). Brathwaite used the Macintosh’s new font capabilities to develop a “Sycorax Video Style”, a distinctive mix of jagged fonts and layouts, and named for the witch-mother of Caliban. Brathwaite’s distinctive Sycorax style is read both bibliographically and critically, as a restoration of an oral and/as literary tradition newly remediated into digital literary heritage.

“The Story of S.” is the most astonishing of the many amazing case studies: the story of a trans-media book, or what Kirschenbaum calls an artifact of “bookish media”, released by Doug Dorst, J. J. Abrams’s media company Bad Robot, and the fascinating Melcher Media. “Bookish media” for Kirschenbaum refers to “the way in which books have been fully subsumed by the homology of contemporary media” (80), in this case through a “book” that also becomes a participatory game, marketing tie-in, found object, locus of ephemera, and cult object: a post-digital mode of books as “consensual hallucinations enabled by the continuity and internal consistency of the encompassing franchise and brand” (88). The story of Melcher Media and S. itself is both unique and entirely diagnostic of the book-printing industry now, demonstrating how logistics, offset publication, and transmedia tie-ins matter more than the final “bookish” artifact. Apart from the fascinating study of S. as transmedia object, Kirschenbaum here usefully articulates a notion of “secondary materiality”, on the model of Walter Ong’s “secondary orality”: “not [. . .] the abstraction or abnegation of materiality, but its transposition: that is to say, new materialities imposed by

the exigencies of artificially representing some putatively authentic material particular” (90), in this case “annotations” layered over “manuscript” pages bound within a cloth cover “textured” to look like linen. The book becomes a media artifact haunted by bookishness, and its readers become the lay critic-priests of its media hermeneutics — a model that Kirschenbaum provocatively offers to us as the future of digital bibliography.

In the concluding Coda, Kirschenbaum champions bibliography as a “habit of mind and a habit *to* mind”, an inductive process of reasoning from the huge diversity of materials and examples that constitute literary heritage now. Kirschenbaum frames this as an ethical imperative, an “*uncompromising commitment to the individuality of all things, every instance, every copy*”, which must necessarily be embedded in a diachronic and historical understanding of the material conditions that enable that individuality (98). “E-paleography”, and the recovery of the digital literary heritage, will always depend on speculative, conjectural, as well as material acts of mediation, as in the move from floppy disks to disk images. “Bibliography of the born-digital proceeds from the inference that attends all historical knowledge, even as it acknowledges the fundamentally arbitrary and discrete nature of computation”: it thus investigates the gap between “the formally idealized state machine of the digital computer and the messy, human, and asymmetrical lifeworld of the people who use them” (110). Kirschenbaum’s book rests precisely in that uncertain, speculative gap between the bitstream and its readers, between literary heritage and literary experience, between intention and act. His is a wonderfully literary exploration of the glorious mess of bookish media and mediated archives now, required reading for the next generation of digital archivists, bibliographers, and textual scholars.

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