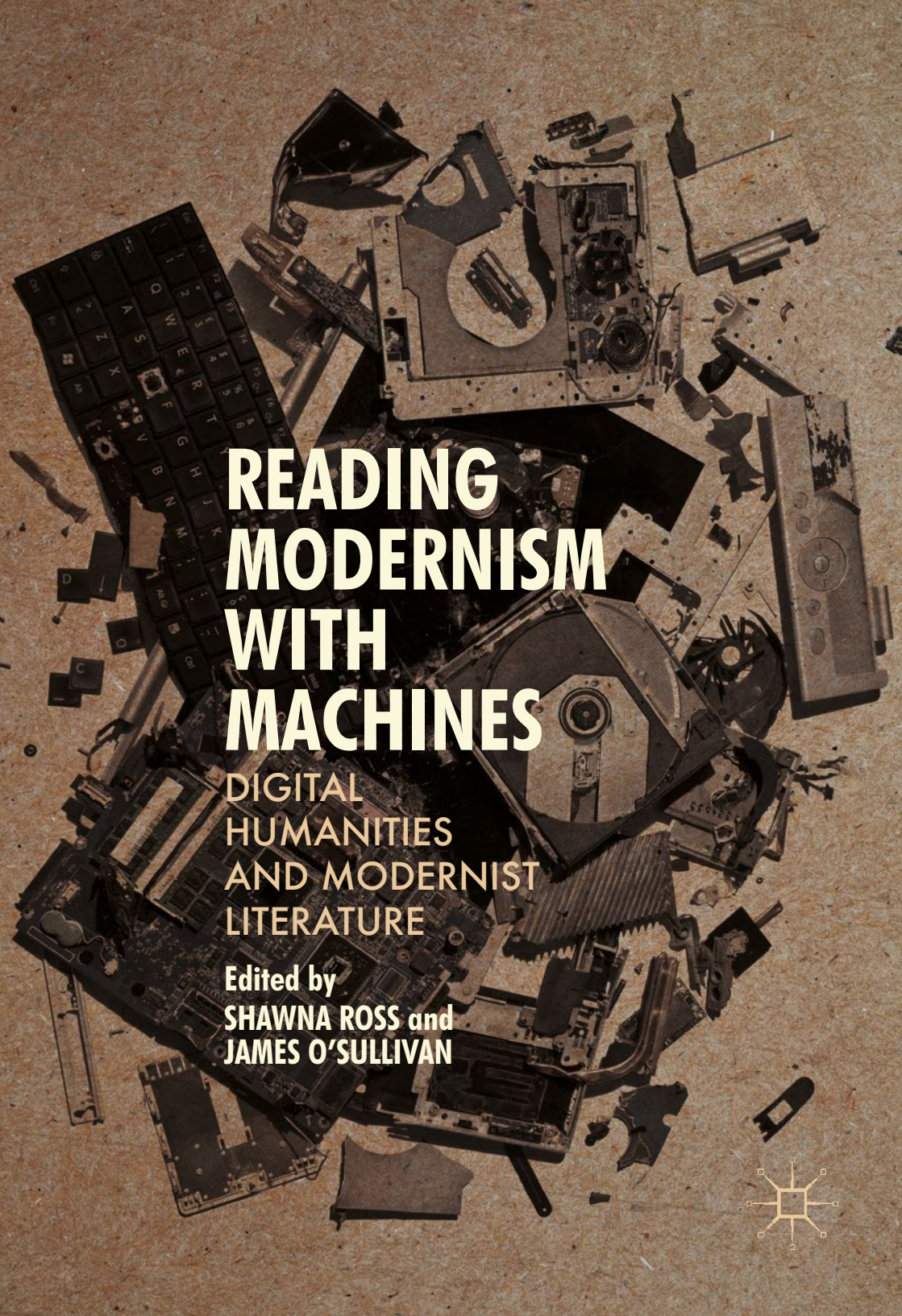

READING MODERNISM WITH MACHINES

DIGITAL HUMANITIES AND MODERNIST LITERATURE

Edited by
SHAWNA ROSS and
JAMES O'SULLIVAN

Reading Modernism with Machines

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Editors

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Digital Humanities and Modernist Literature

palgrave
macmillan

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ISBN 978-1-137-59568-3 ISBN 978-1-137-59569-0 (eBook)
DOI 10.1057/978-1-137-59569-0

Library of Congress Control Number: 2016955951

Cover illustration: © Cultura Creative (RF)/Alamy Stock Photo
Cover design by Oscar Spigolon

Printed on acid-free paper

This Palgrave Macmillan imprint is published by Springer Nature
The registered company is Macmillan Publishers Ltd.
The registered company address is: The Campus, 4 Crinan Street, London, N1 9XW, United Kingdom

Preface

This volume is comprised of essays that are, methodologically, rooted in the digital, but the significance of this collection is to be found in the *results* of the studies—the literary interpretations that are supported, not dictated, by the machine. In taking such an approach, it is our hope that this collection represents precisely what digital literary studies should be: a field in which computers assist in the discovery of new forms of evidence, evidence which is in turn used to further existing critical arguments, while shining a light on new, previously unforeseen strands of enquiry worth pursuing. The method is just that—the *method*—and while we must strive to ensure that the techniques of this field remain valid, it is what we derive from the method, rather than the method itself, that should be, as literary and cultural scholars, our primary focus. A fascination with method is important to the development of more robust and sophisticated techniques, but any such research should always be conducted in the service of those disciplines and activities that constitute the Arts and Humanities.

Saying this, the value of method should not be diminished, and thus, this collection also serves as a timely demonstration for those scholars who wish to see the validity of the Digital Humanities. These essays should act as a template for those seeking to juxtapose computer-assisted techniques with critical enquiry, particularly in a field such as this, where modernism's central tenant, the desire to "make it new," seems as readily applicable to the scholar's method as it does the artifact's content.

While the Digital Humanities are comprised of various and sometimes dissonant activities, the methods that have emerged from this community of praxis are applicable to a multiplicity of literatures. The analysis of most,

if not all, literary movements, epochs, genres and styles can be assisted by a computer. Yet, while these techniques are the progeny of interdisciplinary efforts, and entirely transferable in their application, we should not lose sight of our own humanistic origins. Many of the Digital Humanities' existing collections are broad in their focus, covering a variety of disciplines. Undoubtedly a product of the field being inherently interdisciplinary and collaborative, while this trend is to be encouraged, there is also a need for disciplinary focus.

This collection offers an example of such: while there may be some appeal to a wider set of literary scholars intrigued by recent shifts in the way that scholarship is conducted, this is a collection about modernist literature, comprised of contributions by scholars who are humanists first, technicians second. In being so, it is an example of precisely what the Digital Humanities promises: a robust interrogation of the literary, informed by methods which do not replace, but rather, supplement, existing modes of criticism. And in doing so, it does not render the long-established principles of modernist scholarship obsolete—it merely contributes to making them new.

James O'Sullivan

Acknowledgements

The editors would like to acknowledge the pioneering work done by the Modernist Journals Project (Robert Scholes, Sean Latham, Susan Smulyan, Jeff Drouin, Clifford Wulfman and Mark Gaipta), the Orlando Project (particularly Susan Brown), the Modernist Versions Project (particularly Stephen Ross), and Editing Modernism in Canada (Dean Irvine). We would also like to thank April James, Ben Doyle, and Peter Cary at Palgrave Macmillan for their support of this collection, as well as our tireless copyeditors.

Portions of Chapter 1 have appeared in *Digital studies/Le champ numérique*, vol. 6 (2016).

Shawna would like to thank Andrew for his attentive willingness to talk in perhaps excruciating detail about this project. She wants to dedicate her work on this book to her mother, Cynthia Jordan.

James would like to thank Graham Allen and Órla Murphy, University College Cork, for their continued support and guidance.

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CHAPTER 1

Introduction

Shawna Ross

In his 1922 constructivist manifesto, László Moholy-Nagy proclaims that technology is the "reality of this century." In defining technology as "the invention, construction and maintenance of the machine" and proclaiming that to be "a user of machines is to be of the spirit of his century," Moholy-Nagy characterizes avant-garde modernism in terms uncannily similar to our own twenty-first century justifications of the timeliness and significance of digital humanities.[1] After all, what unites the disparate projects of digital pedagogy, data collation and visualization, archive and tool construction, cultural studies of media and computation, and all of the other disparate projects under the umbrella term digital humanities (DH), is the common denominator of the machine known as the computer. If we accept Moholy-Nagy's claim that machines create reality—"reality" being, according to his definition, that which "determines what we can grasp and what we cannot understand" (299)—then our computational machines constitute the foundation of our episteme as they did in Moholy-Nagy's modernist episteme. In this episteme, technology determines what emerges as real, as palpable, as capable of producing truths, and what recedes, unreal, ungraspable and unrepresented. Digital humanists doing

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S. Ross, J. O'Sullivan (eds.), *Reading Modernism with Machines*,
DOI 10.1057/978-1-137-59569-0_1

research in modernism are thus truly reading modernism with machines: more than simply means to an end, our machines underwrite the reality of our scholarship. Their processes and outputs influence what emerges as knowable and what counts as proof, bending modernist texts and modernism itself toward our contemporary machinic episteme. Of course, it is no more willfully anachronistic than any school of literary criticism—so long as we do not silently attribute to modernism itself our own contemporary revolutionary digital rhetorics of the new.

This is the danger of our work, this all-too-satisfying equation of modernists' fascinated celebrations and critiques of *their* technological present with our *own*. The best work in digital humanities addresses this spurious resemblance by reflecting both on the conditions of its own production and on the world-making (and world-limiting) powers of our machines. Consider, for example, the reflexivity of certain DH schools of thought (such as critical code studies and minimal computing) and certain DH thinkers (particularly Johanna Drucker's critique of techno-positivism and Alan Liu's mandate that digital humanists engage in cultural criticism).[2] With modernist studies' similar emphasis on the reflexivity, poetics and cultural criticism, it could still seem possible to stretch the modernist episteme of the machine comfortably over ourselves, making, temporally, a very big tent indeed. It would undoubtedly be a tent particularly flattering to modernists. But Moholy-Nagy's twentieth-century optimistic fervor cannot quite be our own, though his insight into the constitution of an episteme by the machine can be—with the addendum that a succession of technological presents has superseded the putatively universal machinic episteme posited by the modernist avant garde. We cannot claim, as he does, "There is no tradition in technology, no consciousness of class or standing. Everybody can be the machine's master or its slave" (300). We can, now, point to such a tradition, the elaboration of which demonstrates the distance between our particular machinic episteme and the modernist machinic episteme. More alarmingly, Moholy-Nagy's uncritical invocation of the master/slave relationship, which he seems to applaud for its apparently utopian potential, could itself be interrogated as a troubling, dystopian reinscription of imperial forms of cultural and economic production. The critical work of postcolonial and feminist digital humanities—*critical* in every sense of the term, as Jesse Stommel writes of critical digital pedagogy[3]—has been engaging in such interrogations. When these interrogations are done in the field of modernism, they certainly point to parallels between modernism and the Digital Humanities, but they are parallels not at all desirable.

A Call for Field-Specific Digital Humanities

This principle applies to other DH subfields as well. Any proposed parallel between *any* literary period and the contemporary digital culture and scholarship needs to be specified (is this stylistic, political, material, rhetorical, methodological or philosophical?), qualified (acknowledging gaps, errors or hyperbole), and historicized (accounting for both material and discursive change). This is not to deny, outright, any contemporary recurrences of certain avant-garde rhetorics and representational strategies. Such arguments have been persuasively cast at least since 1989 with the publication of Richard Lanham's "The Electronic Word," which posits that modernism and humanities computing share the avant-garde rhetoric he calls "experimental humanism."[4] More recently, Jessica Pressman's *Digital Modernism* observes recurrence of modernist representational strategies in contemporary electronic literature, and Stephen Ross and Jentery Sayers trace "productive convergences" between modernism and the Digital Humanities (625). [5] My own work has participated in the digital revival of modernist avant-garde forms,[6] although I have also argued that this neomodernism results from the shared methodology a modernist scholar brings to bear on modernism and on the Digital Humanities rather than from inherent resemblances between digital humanities methods and modernist literature.[7]

By dwelling on this impulse to draw parallels, I mean not to reject these arguments wholesale but to affirm that they are only successful when they are informed by and grounded in field-specific literary criticism. This is true even when those arguments reject or revise the assumptions common to that critical field. It is to affirm that within disciplinary traditions lay a rich, vetted and productive method of avoiding the continually renewed claims that DH is undertheorized.[8] Certainly, other ways of debunking those claims exist: Natalia Cecire points to the greater significance of measuring the ethical implications of choosing certain models for DH, and Steven E. Jones notes that "those outside DH often underestimate the theoretical sophistication of many in computing" (10).[9] Jean Bauer argues that work already undertaken is inherently theoretical, and Chris Forster, in responding to Bauer, deconstructs the "slippery grammatical place" of the term *theory* to reveal the fundamental incoherence of demands to be theoretical.[10] All of these defenses provide a solid defense against these claims, but our disciplines offer another way out.

This way does not require another volume of debates or definitions but instead an explicit grounding within individual academic fields that have individually wrestled with theory since it became legible as a scholarly value. Institutionally, traditional disciplines may exist (to put it mildly) in tension with newer DH initiatives and practitioners, but this tension neither precludes the enrichment of DH by disciplinary knowledges nor nullifies our obligation to learn and apply them. Admittedly, some varieties of DH may require more creativity in identifying their theoretical forebears (critical makers may have to turn to art and architecture), but in the case of digital literary studies, such indebtedness seems so obvious as to require no special acknowledgement. Yet it does need saying. As Brian Croxall observes in his Call for Papers for the Association of Computers and Humanities-sponsored panel at MLA 2014, "what is sometimes forgotten is that the output of digital analysis is not itself the goal; rather, such analysis is a means to an end, and that end is the interpretation of a text or corpus (understood widely)." Croxall's panel was intended to "re-establish this understanding and conversation, defamiliarizing the conversation about the digital and making it re-familiar."[11] Both of us answered Croxall's CFP, and our presentations at MLA 2014 both argued that this interpretation, this focus on the literary ends rather than (only) the digital means, requires invoking, engaging with and ultimately contributing to discipline-specific arguments. This roundtable was in fact the starting point for *Reading Modernism with Machines*, which similarly asked contributors "to focus not on their methods but instead on the interpretations they have reached as result of their digital praxis," as Croxall phrased it.

The chapters in this volume therefore use digital methods to intervene critically in conversations current in modernist studies, foregrounding the interpretive significance of their results rather than devote the larger portion of their argumentation to technical excursuses or methodological summaries. This significance does not reference the statistical variety—though of course that is also necessary—but the literary-critical variety. Doing so avoids "the fetish of technology" that Hal Foster argues were typical of "machinic modernisms" of Futurism and Vorticism (and of Moholy-Nagy), under which "a machinic style was held out as the lure of a technological future to which people were asked, indeed compelled, to accede," treating technology as "a force in its own right and/or an emblem of 'the modern spirit'" (7).[12] A properly modernist digital humanities will not fall into the traps that F. T. Marinetti and Wyndham Lewis fell into, but will instead use disciplinary norms to avoid fetishizing

technology—whether that is the technology of the modernists or the contemporary technology of the Digital Humanities—and will reflect on the distance between our two machinic epistemes. As Foster warns of avant-garde machinic modernisms, the task of modernist digital humanities is not "to extrapolate the human toward the inorganic-technological" or "to trope the inorganic-technological as the epitome of the human" (15), but to identify when, how and why that happens, whether interpreting it as a trend in our object of study or observing it in other works of scholarship. This requires combining digital and traditional methods judiciously, allowing a space to reflect critically on the aesthetic, political and philosophical ramifications of the ever-changing definitions and dependencies that connect humans, technology and the humanities.

Teasing out these relations requires not a new platform or tool but renewed, sustained engagement in field-specific conversations. It requires raising awareness within these individual literary fields, advocating for digital work by making explicit connections between these ongoing debates and by winning over scholars who do not identify as digital humanists or who show resistance or hostility to it. It requires creating formal and informal contexts for DH-minded scholars in the same field to work with one another, encouraging conversations over social media and list-servs, during regional and national conferences, between faculty and students at the same institution or graduate students at different institutions. It requires addressing the canon—the canon that exists and the canon that does not exist. Making new contributions to the literary analysis of canonical works will help to ensure continued buy-in from the particular discipline; we do, indeed, always need another interpretation of *Ulysses* or *Mrs. Dalloway*. At the same time, though, DH is well suited to interrogating the canon, analyzing its origin and tracing its effects. Most importantly, it is, due to increased opportunities for electronic publishing, especially well suited to expanding the canon. It requires taking an inventory of the methods common to the individual field and comparing these to DH methods in order to devise tailor-made DH processes appropriate to a specific field. Devising these will in turn require returning to questions of style, to aesthetics and revisiting the period's or field's non-fiction, manifestoes, artist statements and contemporaneous reviews and criticism—particularly with an eye toward book history, media and technology. Over time, a flexible collective identity, something close to a brand that is always close to disbanding, should emerge. And it should employ a different style and tone for each audience: inward toward other disciplinary DH specialists,

across to disciplinary specialists who do not identify with DH and outward to the broader DH community.

The kind of field-specific work outlined in these propositions has just begun to emerge, with publications such as *Comparative Textual Media* in new media studies,[13] *Digital Rhetoric* for rhetoric and composition,[14] *Early Modern Studies after the Digital Turn*[15] and *Shakespeare's Language and Digital Media*[16] for the early modern period, and *Virtual Victorians* for Victorian literary and cultural studies.[17] Like *Reading Modernism with Machines*, these collections similarly examine the relationships between machinic epistemes—for example, "The virtual Victorian era that is emerging from our algorithmic searches, our digital editions and tools, and our data visualizations necessarily reflects that era's own navigation of changing media and information technology"[18]—without oversimplifying. *Making Canada New: Editing, Modernism, and New Media*, edited by Dean Irvine, Vanessa Lent and Bart Vautour,[19] does so through its laser-sharp focus and its reflexive analyses of the processes of digital editing. *Reading Modernism with Machines* is meant to participate in and advance this flowering of discipline-specific work in the Digital Humanities. In this collection, we attempt to provide a context for a "modernists only" conversation, present new analyses of canonical works, use DH methods to revise and expand the modernist canon, reflect on the intimacies and distances between our two machinic epistemes, test new digital methods of analyzing modernist texts and examine the limitations of certain DH strategies for understanding modernism.

In the context of modernism, this attention to discipline-specific approaches toward literary interpretation arrives almost belatedly, considering the past twenty years of exciting modernist digital archives, from the maturation of early initiatives (such as the Modernist Journals Project, Modernist Versions Project and Editing Modernism in Canada) to the flowering of second-generation initiatives (such as Linked Modernisms, the Modernist Commons and the Open Modernisms Anthology). On the other hand, it is *because* of these twenty years of modernist digital humanities initiatives that *Reading Modernism with Machines* can attempt to isolate a relatively coherent, specifically modernist set of approaches, while leaving room to evaluate (especially to critique) our characteristic digital methods. Our contributors' professional experiences with modernist digital initiatives ensure that the collection not only takes stock of what digital modernism has looked like and has enabled over the past twenty years, but also projects new methods of interacting with these resources and suggests

what kind of modernist digital resources are still needed. Taken as a whole, these essays serve as a barometer for future forms of modernist digital humanities. They foreshadow more critical labor: work done to identify problems in the "big data" we generate about modernism while nevertheless continuing to experiment in quantitative methodologies. This work will likely reconsider and expand the canon, develop feminist digital modernisms and postcolonial digital modernisms, and consider the importance of pedagogy and student labor. Following trends in modernist criticism, it will also likely visualize transnational or global networks of modernism and engage with book history (particularly regarding copyright and publication history) and new media studies.

Field-Specific Digital Humanities in Action: Chapter Summaries

Appropriately, then, *Reading Modernism with Machines* opens with Chap. 2, Dean Irvine's "ModLabs," which makes great strides in this latter project by adapting the methods of new media studies to the specific context of modernist literature and culture. Irvine recontextualizes twentieth-century laboratory environments—from Bell Labs to the Stanford Literary Lab—as sites of modernist creation and critique. Identifying a core concept, the "modular," that links this century of laboratories, Irvine historicizes, and thereby demythologizes, current work in the Digital Humanities that appears to be *sui generis*. Irvine's corresponding remediation of the modernist avant garde links modernism and digital cultures methodologically, revealing commonalities through histories of laboratory practice. In doing so, Irvine not only reveals the modernist practices surviving in digital laboratories and DH centers (including a compelling reading of Bruno Latour and Steve Woolgar's *Laboratory Life*), but also advances a useful critique of labor practices inside these labs.

One motif in Irvine's contribution—a rejection of the oversimplified perspective that pits distant reading against close reading—swells into the dominant strain with Chap. 3, "Modeling Modernist Dialogism: Close Reading with Big Data," by Adam Hammond, Julian Brooke and Graeme Hirst. This essay flexibly combines an impressive range of texts, seamlessly incorporating modernist criticism, DH theory, modernist literature and the data they produced into two different projects—one designed to autodetect the many speaker transitions in T. S. Eliot's *The Waste Land* and the other designed to identify free indirect discourse in texts by Virginia Woolf

and James Joyce. Reflecting on the "hybrid approach" they developed to combine close and distant reading methods, Hammond, Brooke and Hirst link these two projects under the rubric of "dialogism," managing both to leverage the power of big data and to deliver a sophisticated revision of the dialogic theories of Mikhail Bakhtin and Erich Auerbach.

Chapter 4, Alex Christie and Katie Tanigawa's "Mapping Modernism's Z-axis: A Model for Spatial Analysis in Modernist Studies," completes a classic DH methodological trifecta by adding digital mapping to Irvine's cultural studies analysis and Hammond, Brooke and Hirst's big data collection. Christie and Tanigawa's pioneering work on the "z-axis" methods of mapping literary texts, developed collaboratively as an arm of the Maker Lab in the Humanities at the University of Victoria, distorts historical maps according to the frequency and depth of the text's engagement with a particular locale. By highlighting the discrepancies, exaggerations and elisions that differentiate a modernist text's spatiality from that produced by contemporaneous maps, Christie's map of Djuna Barnes's *Nightwood* and Tanigawa's map of Jean Rhys's *Quartet* avoid a spuriously objective approach, instead introducing anti-realist style of mapping. This subjective geography enables Christie and Tanigawa to develop innovative queer and feminist readings of these modernist novels and to posit new connections among gender, sexuality and space in modernist literature.

Chapter 5, Kathryn Holland and Jana Smith Elford's "Textbase as Machine: Graphing Feminism and Modernism with *OrlandoVision*," continues this emphasis on using digital humanities tools to advance feminist approaches to modernism. Rather than visualize primary texts, however, they visualize modernist feminist scholarship by analyzing the scholarly articles comprising the digital resource *Orlando*. A case study on suffrage societies sheds new light on Dora Marsden's crucial mediation of feminist politics through her editorship of *The Freewoman*, while a case study on Newnham College, Cambridge, recovers the college's centrality as a site of modernist production, weaving a rich cultural and intellectual history that, among its other insights, reveals an important new context for Virginia Woolf's *A Room of One's Own*. Beyond reconstructing feminist networks in modernism, their analysis makes explicit the networks implicitly created by the *Orlando* database's metadata, showing how digital resources and archives themselves, not simply their contents, constitute fertile subjects for research.

Chapter 6, Hannah McGregor and Nicholas van Orden's "Remediation and the Development of Modernist Forms in *The Western Home Monthly*," continues this focus on digital archives. Their analysis advances theories

of mediation by interrogating it as not only an operation performed by the digital archive on its objects of representation, but also as a mechanism at work in the layout of early twentieth-century magazines, and as a specifically modernist technique. Focusing on a middlebrow Canadian magazine, McGregor and van Orden pivot between close and distant reading to question long-standing assumptions about the differences between middlebrow periodicals and modernist little magazines. Their findings therefore substantiate recent scholarship reconsidering the middlebrow, and as McGregor and van Orden engage substantively with recent developments in new media studies—particularly through a fascinating discussion of the remediation of the phonograph and radio in *The Western Home Monthly*—they forge a new method that combines strategies from new media studies and modernist studies.

In Chap. 7, Wayne Arnold's "Stylistic Perspective Across Kenneth Fearing's Poetry: A Statistical Analysis," also adjusts the modernist canon by reappraising neglected Canadian literature. Best known today for his 1946 novel *The Big Clock*, Fearing presents a fascinating test case for stylometry because, as Arnold explains, critics have cited a lack of stylistic change or development to explain the decline of his reputation as a poet. Arnold tests this claim by statistically analyzing 142 poems to establish usage patterns for words that, in other digital methods, are often thrown out as stop words or simply not retained as useful data. This includes pronouns, question marks and repetition, all of which Arnold traces to verify the existence of a stylistic change in Fearing's oeuvre. Arnold's chapter therefore demonstrates the play of scale invoked by DH—scanning hundreds of poems for variations in words of two or three letters—enables significant interventions in understanding the course of a poet's career.

Chapter 8, Adam James Bradley's "In the End Was the Word: A Computational Approach to T. S. Eliot's Poetic Diction," similarly focuses on the large-scale analysis of small-scale choices made by a single poet, but unlike Arnold's contribution, Bradley's chapter explores Eliot's penchant for exotic, archaic or self-coined terms. With the precision and patience of a linguist, Bradley outlines the precautions, extensive research and subtle reasoning necessary for preparing poetic data for submission to computational processes. By running comparisons of Eliot's diction with the *Oxford English Dictionary* and with contemporaneous journalism, Bradley tests the accuracy of Eliot's and Ezra Pound's claims about modern poetic diction and of modernist scholars' generalizations about Georgian poetry (and its differences from Victorian poetry and from high modernist

poetry). The results, which are, unsurprisingly, mixed—some truisms are confirmed, others disconfirmed—should be required reading for anyone engaging with Eliot's criticism, particularly "Tradition and the Individual Talent" and "The Metaphysical Poets."

Equally as attentive to the nuances of diction and etymology, Chap. 9, Jonathan Reeve's "A Macro-Etymological Analysis of James Joyce's *The Portrait of the Artist as a Young Man*" also sheds new light on high modernism through macroanalysis. Reeve's deep familiarity with and engagement with contemporary criticism of Joyce, along with his focused close readings of significant passages in *Portrait*, demonstrates how comfortably digital and analog forms of reading can be interwoven. Though Reeve primarily uses his statistical results to confirm the scholarly consensus regarding Stephen's characterization, his individual discussions of each etymological origin in the narrative—the changing proportions of Latinate, Germanic, Hellenic, Celtic and unidentified words—unearth new facets of Stephen's religion, sexuality and politics. For Joyceans, Reeve's hypotheses regarding Joyce's attitude toward Irish nationalism will be of especial interest, while the more general audience can attend to Reeve's broader thesis that macro-etymological analysis reveals that etymology and narrative structure are fundamentally related.

Chapter 10, "Body Language: Toward an Affective Formalism of *Ulysses*," by Kurt Cavender, Jamey E. Graham, Robert P. Fox, Jr., Richard Flynn and Kenyon Cavender, similarly tackles Joycean style, while also intervening in critical conversations about sentiment analysis (in DH) and affect theory (in literary theory). Critiquing machine sentiment analysis for their hard-wired conceptual slippages, Cavender's team builds a "bodily lexicon" from *Ulysses* itself to compensate for the shortcomings of existing sentiment lexicons, then close read passages in the text suggested by results from their custom program, Affectcrawler. These close readings are solid examples of DH analysis successfully incorporating literary theory, yielding an ingenious theory accounting for Bloom's centrality in the text and a comparison of modernist and Victorian affect (by running a comparison with George Eliot's *Middlemarch*). Perhaps most excitingly, they generate a reading of disability in the "Calypso" episode, demonstrating the unintuitive power of using algorithms to explore bodies in modernism.

Bodies also matter in Andrew Pilsch's Chap. 11, "'We Twiddle … and Turn into Machines': Mina Loy, HTML and the Machining of Information." Pilsch explains the difficulties he encountered while coding

poems such as "Parturition" (Loy's physically intense poem about childbirth) for inclusion in his archive, Mina Loy Online. Linking Loy's powerful representations of modern bodies under the stresses of sex, childbirth, industrial labor and world war to her critique of androcentric futurism, Pilsch establishes the significance of Loy's idiosyncratic typography as a mode of feminist embodiment. Insistent on the duty of digital archives to preserve the precise typography of modernist poetry, Pilsch uses the resistance of HTML against Loy's typography as a context for comparing Karl Marx's and Alan Turing's different concepts of the machine and for unpacking the history of hypertext. Arguing that the theory of textuality inhering in HTML is regressive, non-modernist and anti-feminist, Pilsch ends by advocating the creation of a more fluid, fragmented and feminist markup language.

A similarly strong critique of contemporary digital culture motivates our final Chap. 12, Eunsong Kim's "CGI Monstrosities: Modernist Surfaces, the Composite and the Making of the Human." Also like Pilsch, Kim uses the modernist methods of critique that motivate the other essays in order to pursue the political ramifications of modernist concepts inhering in our contemporary machinic episteme. Kim identifies the perpetuation of modern philosophies of positivism in criticism on contemporary film editing, then adapts modernist methods to provide an alternate reading of CGI (Computer Generated Imagery). Deconstructing the visual techniques used in CGI animation for the HBO series *John Adams* and the South Korean horror film *The Host*, Kim reveals the same colonial tropes that are at also at work in literary modernism. CGI's compositing of the human body, its erasure of labor through editing, its collapse of three-dimensional figures into two dimensions, and its neocolonial logic that produces monstrous others and monstrous crises while ignoring the monstrosity of its own methodical nanoscopic processes—all of these paradoxes inhering in the fabrication of the human body by algorithms, Kim shows, are the endpoint of a process begun in modernism.

Unlike the other essays, Kim's essay does not read a modernist text, but rather teaches us how to read *Reading Modernism with Machines*; it anatomizes the procedures of digital representation to remind us that each computational transformation of a text, whether through the creation of an archive or tool or through data analysis or visualization, crystallizes each decision made by a scholar into a representational given. These givens are too often invisible, ignored or suppressed, all in the name of strengthening our arguments—yet it is only by including our disciplinary knowledges at

every level of digital analysis that we can control for, compensate for or minimize the distortions of texts and humans by machinic representation. Moholy-Nagy was therefore correct to assert that the task of the subjects of each machinic espisteme is "to fight for a new spirit to fill the forms stamped out by the monstrous machine" (300). Indeed, all the chapters comprising *Reading Modernism with Machines* engage in some way with Moholy-Nagy's call, whether they leverage or critique the stamped-out forms of our own machinic episteme. As a result, in reading modernism with machines, our contributors not only illuminate the modernist episteme of the machine, but also, just as significantly, add their own inflections to the "new spirit" of our century's new machines.

Notes

1. László Moholy-Nagy, "Constructivism and the Proletariat," in *Modernism: An Anthology of Sources and Documents*, ed. Vassiliki Kolocotroni, Jane Goldman and Olga Taxidou (Chicago: U of Chicago P, 1998): 299.
2. Johanna Drucker, "Humanities Approaches to Graphical Display," *DHQ* 5.1 (2011); Alan Liu, "Where Is Cultural Criticism in the Digital Humanities?" *Debates in the Digital Humanities*, ed. Matt K. Gold (Minneapolis: U of Minnesota P, 2011): 490–509.
3. Jesse Stommel, "Critical Digital Pedagogy: A Definition," *Hybrid Pedagogy* (18 Nov. 2014).
4. Richard Lanham, "The Electronic Word: Literary Study and the Digital Revolution," *New Literary History* 20.2 (1989): 265–90.
5. Jessica Pressman, *Digital Modernism: Making it New in New Media* (Oxford: Oxford UP, 2014); Stephen Ross and Jentery Sayers, "Modernism Meets Digital Humanities," *Literature Compass* 11.9 (2014): 625–33.
6. Ross's collaborative effort, "Manifesto of Modernist Digital Humanities" (Alex Christie, Andrew Pilsch, Shawna Ross and Katie Tanigawa, http://www.shawnaross.com/manifesto, 14 Nov. 2014) self-consciously adopts the style of Wyndham Lewis's manifestoes into HTML format to argue that modernism can be seen as a particular methodology used by the Digital Humanities, not only as an object of analysis. This adoption was intended to reproduce Lewis's tone of playful antagonism and to perform, in an exaggerated fashion, the tendency of modernist digital humanities to value modernist argumentation but enact realist methodology. Though readers are certainly free to interpret the Manifesto as they like, the intention was not necessarily to *privilege* modernist methods monolithically but to raise awareness that they could be developed alongside realist methods.