INTRODUCTION

Recast in the mold of a taxonomic ordering of things, chronology becomes the alibi of time, a way of making use of time without reflecting on it.

—Michel de Certeau (1986: 216)

[Time] has its origins in the life process, in the creativity of the mind, and in social conventions and modes of communication.

—J. T. Fraser (1987: 4)

The denial of time and complexity was central to the cultural issues raised by the scientific enterprise in its classical definition. . . . Today interest is shifting from substance to relation, to communication, to time.

—Ilya Prigogine and Isabelle Stengers (1984: 8)

My title is admittedly provocative.¹ My point is not to conceive of a history shorn of time, nor is it a denial of successivity; it is not an end to history. Instead, I argue that history must embrace the richness and variability of different times that exist throughout our lives, are evident in nonmodern societies and historical writings about them,
and have become common in various sciences throughout the twentieth century. To conflate time and chronology is to succumb to what Michel de Certeau calls an alibi—to make “use of time without reflecting on it.” Moreover, it is to ignore (as J. T. Fraser, one of the great scholars on time, points out) time as emanating from life (biological and social processes) in favor of a mechanical metric that I will argue has restricted the possibilities of history. The physicist Erwin Schrödinger writes, “We must be prepared to find [the structure of living matter] working in a manner that cannot be reduced to the ordinary laws of physics” ([1944] 1967: 76). And the “denial of time” referred to by Ilya Prigogine and Isabelle Stengers ignores life processes and the structure of living matter by using Newtonian time (now called “classical time” in the sciences). I engage with what they identified as a shifting interest (thirty years ago!) that was moving from substance—the question of what is—to relations and communication. My hope, then, of a history without chronology is an engagement in the multiple times that already exist but have been subsumed or ignored by classical time.

The slowness of the shifting interest identified by Prigogine and Stengers suggests that this is not another fashionable “turn” of academic production; it should be more. To punctuate a need for such an inquiry, I will invoke two major intellectuals, Norbert Elias and Michel Serres. During the last decade of the twentieth century, both argued that we need a different understanding of time; they criticized the prevailing understanding of modern time that we use in everyday life, liberal-capitalism, and scholarship, especially in the humanities and social sciences. This is the time of Newtonian science, an absolute time, external to human society. First, Elias wrote, “An enquiry into ‘time’, as one may have noticed, is a useful point of departure for the great spring-cleaning that is long overdue. There is always a need for it when an intellectual tradition providing the basic means of orientation within its societies has run its course for several centuries, as ours has from the (so called) Renaissance to the present time” (1992: 93–94). Second, Serres
went further, pondering whether progressive time is a persistent myth like the idea that the earth is flat: “But, irresistibly, I cannot help thinking that this idea is the equivalent of those ancient diagrams we laugh at today, which place the Earth at the center of everything, or our galaxy at the middle of the universe, to satisfy our narcissism” (Serres with Latour 1995: 48).

I believe that it is an important moment to take up Elias’s challenge for a spring cleaning, and as uncomfortable as Serres’s statement might be, he is not an intellectual who can be easily dismissed. Over the past decade or so, scholars have been increasingly discussing time and temporality, and there have been many excellent interventions from which I have benefited. But popularity has also brought what one might call a casual use of the nouns *time* and *temporality*. Too often, despite this move toward a reflective understanding, time and temporality still operate within a notion of absolute time; they merely denote the past, sequence, or history (with all its ambiguity and generality).3 Tom Boellstorff has pointed out that when anthropology shifted from the hierarchical notion of “Culture” to heterogeneous cultures, it did not also discard the linear time—here, chronology—that undergirded the former (2007a: 30–34). In spite of the occasional and quite powerful inquiries into the problem of time, historians and historical thinking still operate within a framework that predisposes us toward a progressivist and mechanistic desire (or, at minimum, vocabulary); time is still accepted as absolute and natural. Such work reaffirms Certeau’s assertion of chronology as the “alibi of time,” an unreflected-on category in the discipline of history. Linearity and taxonomy continue—barely modified, at best. We need to do more than change a few nouns and verbs. Unless historians—who should be better equipped?—also decenter chronological time, we still operate within the nineteenth- and twentieth-century frameworks, despite our denials.

I take seriously Eelco Runia’s refreshingly honest but damming comment that opens his book: “Sometimes, in unguarded
moments, I mutter to my students that ‘historians don’t think.’ . . . the discipline puts a premium on ‘sorting things out,’ . . . And ‘thinking,’ I go on, is turning things upside down, is awakening dogs that lie sleeping, is taking things apart, is, in short, willfully making a mess” (2014: xi). This “mess” is thinking anew—questioning existing structures, categories, and methods that have delimited the relation of the present with what is previous (past) as well as anticipated. Elizabeth Ermarth recognizes the potential of the sciences (physical and biological) since Newton for reconsidering our understanding of societies. She writes, “We are surrounded by a world that operates on the principles of quantum theory; we are living in mental worlds that operate on the principles of Newton. . . . But in the subvisible and stellar worlds that surround us, things have changed, and those changes limit the scope and importance both of Newtonian mechanics and of historical thinking” (1992: 10). Thermodynamics, special relativity, quantum mechanics, chronobiology, and cybernetics (complexity) have changed the scientific understanding of time, and these times alter how we understand physical and social processes. To this, we need to add work in cognition that shows that the modes of transmission of information—reading and learning—are but one part of a complex of environment, inherited understanding, and moment. To ignore more recent understandings of time and cognition gives credence to Serres’s indictment that those who deny (or ignore) such scientific understandings are like those who persisted that the earth is flat. In short, our understanding of history is now mythical. We must recognize that continued use of classical time destabilizes those ideas based on it and potentially places them within a mythical mode of thought. Hans Blumenberg warned, “The mythical mode of thought works toward evidentness in the articulation of time; it is able to do this because no one ever asks for its chronology” (1985: 100). If myth is understood as the “practical verities in which the members of the community all believe and live” (Mali 2003: 4), then absolute time has achieved a mythical
status in the merger of chronology and history. Blumenberg’s mythical mode (our current system) prevails; that conceptual system is linear and regular, and it homogenizes life according to mechanical, linear processes. In its merger with history, chronology has become a social technology that guides and controls us (Mumford 1934). It imposes structure, an ordered mechanical life; it relegates humanistic work—ideas, culture, interpretation, and ethics—to a secondary or lesser value compared to measured work; and it guiles us into thinking that we are better than those before.

The epigraph from Fraser captures the difficulty of posing an inquiry into the relation between time and history. Indeed, time is embedded in life and in modernity; one can go so far as reiterate Marx: “Time is everything, man is nothing; he is at the most the incarnation of time” (quoted in Lukács 1971: 89). Fraser unpacks Marx’s statement a bit. Time is embedded in life processes, human reckoning, and cultural practices—that is, the rhythms of all types of organisms as well as the movement of the planets, stars, and galaxies. But there is an ambiguity in Fraser’s statement and classical time. Classical time is external to human activity; it is based on Newtonian physics. It has been critical in the formulation of modern systems that guide, organize, order, and control. He points out that we have been using a mechanical metric to order and understand life processes. Another way of conceiving of the difference is that the former necessitates knowledge of the past; history through chronological time has emphasized measurement of categorical units. In contrast, the latter—histories based on times that are from life processes, human cognition, and social activity—becomes an important inquiry that can emphasize human relationality and communication about pasts and their relevance to the present. It allows for multiple forms of evidence, and it suggests narrative strategies to broaden the connections of pasts to some present. I don’t think this is a very controversial statement, and many historians have been trying to do so. Yet the problems I outline above persist or are getting worse.
My hope is that in this renewed interrogation of time, scholars, especially historians, first recognize the historicity of chronology as a construct that claims externality and has gained material expression through the clocks, calendars, conceptual forms, and social structures built on them (chapters 1 and 2). Second, I hope they consider how scientific understandings of time that have emerged in the twentieth century might be adapted to reconceive relations of the present and pasts (chapters 3 and 4). A history without chronology is an attempt to offer to history—and the humanistic sciences—a significance that, I believe, they deserve in our lives and our world. It is my attempt to think anew, to make a “mess” (which includes recovery) where we incorporate the multiple times and various temporalities that simultaneously operate in our worlds.

DIGITAL HUMANITIES

Origin stories in history (including my three beginnings in the acknowledgments) are always suspect. Indeed, this is especially a problem of chronological structures; they often disclose the conclusion. Nevertheless, in an essay that will argue for the transparency of process and the efficacy of stories, I should come clean. This project was born out of frustration and liberation. The frustration is my own failure; I have long been interested in the relation between pasts and history (Tanaka 1993), which led me to absolute time and modern society (Tanaka 2004). Yet I recognize that these books failed in my attempt to move beyond a teleological history. Criticism often reinforces the status quo despite reflection and what seems like separation. In writing those books, I was influenced by a number of intellectuals, such as Walter Benjamin, Michel de Certeau, Reinhart Koselleck, Siegfried Kracauer, and Hayden White. I still am. I see my failure, though, as verification of Lev Vygotsky’s theory of learning as a zone of proximal development (discussed in chapter 3). As I learn more, I continue to see
things they wrote that I had overlooked. I now see those historians as questioning change in history and believe that history is a discipline that does not describe how change happens; the problem of change is discussed in chapter 4. Instead, history describes how societies, nations, and people (biography) became what we know them to be. The very structure of the historical discipline, despite the intent of historians, is conservative. History—whether through acclaim or criticism—reinforces the status quo.

The liberation is in my engagement with digital media and work on new media. I see this book as a project of the digital humanities. This text is certainly not a typical digital humanities product; it is the same long-form (hopefully shortened enough to get the message across) text formatted into a pdf that is printed electronically or on paper. Yet it is a part of the digital humanities because my engagement with digital media has forced me to look anew into how I conceive of and write history. I have been cajoled by what I now call O’Donnell’s Law—uptake of digital media increasingly pushes us toward first principles (O’Donnell 2016)—and these first principles seem just to keep coming! Initial use of digital media often enhances current practices, and we have developed new resources, tools, and practices that help us port current analog practices to digital tools and media—for example, electronic dissemination of published work, building digital archives, using mapping software, and adding pictures to narratives. That process, however, gradually raises questions and exposes inconsistencies that lead toward an inquiry into first principles. This process has led me to questions of evidence, of a “fact,” how things are categorized, how we connect (or not) those pasts, and finally to the viability of absolute time and absolute space in understanding human activity. These inquiries today range from long-accepted assumptions and categories to considerations of purpose and audience. The opportunity is the possibility of other ways to know about and re-present pasts.

I consider this a digital humanities study in another sense. This book is short; that is intentional. The affordances of digital
media encourage scholars to think about audience and how we communicate—it would be ironic (but not uncommon) for a narrative that argues for communication to be monologic. A regular academic monograph on time that covers the topics here would be much longer. I remember a panel at the American Historical Association annual meeting where I interpreted a statement by David Armitage as something like “historians publish to close off discussion.” Arguments are carefully argued with much detail, many caveats, and footnotes that show the nuances of the argument. We write, well aware of potential criticisms, and employ preemptive tactics. The result is a carefully argued narrative that is written for a rather tiny audience of fellow specialists.

The advocacy for communication, then, appears in two ways. My hope is that by unleashing history from chronological time, we might again allow history to be also a form of communication about pasts and their relevance to the present, not just a knowledge about the past. Ultimately, I hope to suggest a history that enlarges the past into pasts as well as pasts in the present, allows for multiple forms of evidence, and suggests narrative strategies to broaden the connections of histories to the present. With this book—and its relative brevity, the copyright, and the digital affordances—I hopefully help move academia another step from publishing toward scholarly communication. I had hoped the digital version would incorporate some of the affordances of that media not available in print. The one exciting addition is the opportunity for readers to comment and annotate the text online. This can be a different form of review—not only of books but also of ideas in books. These annotations will be open, and annotations can also be annotated. This can be a way for readers to amend and correct this book (occasional corroboration or praise would be nice!); in my idyllic world where we return to scholarly communication (as contrasted with publishing), the comments would accumulate into another (collectively authored) book. These forms do put into practice some of my key arguments: the value and richness of
heterogeneity, the presence of multiple perspectives, and the recognition of differentials in reception/learning. In short, it is not meant to be a book that explains a topic but one that opens up conversation on historical thinking.

Digital media raises another issue for humanistic scholarship, boundaries between objects, information, facts, knowing, and understanding. Throughout the twentieth century, intellectuals have variously questioned the role of the human and cognition in relation to technology. This continues, and despite (or because of) the current obsession with STEM, it remains unresolved (and is not readily resolvable). When we step back, we can learn from work on new media and media archaeology that emphasizes that we are in an era of information inflation (Castillo and Egginton 2017; Huhtamo and Parikka 2011; Smith Rumsey 2016; Standage 2013; and Zielinski 2006). Such work shows that history also has a context. Castillo and Egginton describe inflationary media as a saturation that “is provoking a crisis in how we perceive and understand reality” (2017: 1). They place the first major era subsequent to the spread of the printing press. It led to new ways of seeing, knowing, and experiencing through visual perspective, print culture, and the theater. We are in the second major era, the electronic (beginning with the telegraph), where information (transmitted and stored) is separated from the materiality of what it represents. Information is at the center, and time-space has been continually compressing.

History has an interesting place in this transformation; this will be sketched in chapter 2. On the one hand, it becomes a knowledge system that creates a new reality following the first crisis. Castillo and Egginton point to the nation-state as one of the outcomes of the earlier era of inflationary media (2017: 2). History helped stabilize the uncertainty that followed the spread of print; it created a new reality. Again, this speaks to the conservative tendency of history and its complementarity to printed work, especially the book. On the other hand, from a different vantage point, history can be seen as an early moment in the history of information. Information,
according to Claude Shannon, is separated from meaning (Shannon and Weaver 1949); this abstraction is at the heart of the rise of computer science, artificial intelligence, and robotics. History’s notion of “facts” can be seen as a predecessor to Shannon’s definition. This similarity requires that we look beyond the division between science and the humanities and instead consider this understanding of information as the naturalization of a mechanical system of ordering with its various biases. In the formation of modern history, “facts” are the contents of documents abstracted from their sites of creation and places of meaning. Though perhaps not at the same level as cliometrics, algorithms, and Big Data today, chronological time, nevertheless, is a metric that quantifies. As I show in chapters 1 and 2, it does change what counted as history from a qualitative to quantitative mode of analysis, from individual accounts to knowledge of some collective singular. We must also remember that history itself is being formed at the same time that statistics and probability were entering our knowledge system. Clifford Siskin (2016: 43–77) shows that the words system and history became common and connected at the end of the eighteenth century.

If history is indeed interested in qualitative accounts, then historical thinking must also be open to qualitative ways of representing pasts; the digital has pushed me to think not only about facts and recorded happenings but also about the similarities between oral and electronic forms of communication (Foley 2012; Herman 2013; Saussy 2016; Standage 2013). Digital media, then, offers us an opportunity to reevaluate the nature and use of past material and whether this flattening is an extension of the “fact” and to use the affordances of technology to present history in multimodal forms, beyond the text (this will be the next part of this project: to “write” examples of a history without chronology). Once we understand the ways that chronology orients us in particular directions away from people and experience and see that the long-form text, the book, complements that emphasis, we can open history to other forms (storytelling and databases) and media
(comics and visual forms). My hope is not to make history more enticing (this, I believe, is an important concern) but to write histories that maintain the heterogeneity of and interweave human experiences and sensibilities with “major” events.

Finally, the pervasiveness of digital media; the concern about time, especially the compression into presentism; and the angst of the discipline make this a good moment to think about historical inquiry. While this is not a study that directly addresses the angst of the historical field in the second decade of the twenty-first century, we can see the calls from Elias and Serres to reconsider the way we understand time and the past as their engagement with the second era of information inflation. When we ignore the temporal distance (and presumption of advancement) enforced by dates, we can see a different “reality.” For example, we open up the possibility for connections between our current states and pasts, what some are calling “deep time” (Zielinski 2006). Smith Rumsey, for example, chastises us: “Now that we have discovered through empirical science that memory is a dynamic process, strongly inflected by emotion and spatialized in the brain, we have almost caught up with the ancient Greeks” (2016: 171). Certeau, in his encounter with mystics of sixteenth- and seventeenth-century Europe, looks for how they operated during moments when their “reality” changed in a world destabilized from the epistemology that had provided order (1992, 2015). As we know, mystics did not prevail; they were dismissed to a newly created past by a rational and scientific knowledge system—the basis of our modern knowledge system. We too are in transition; we now know that Enlightenment thought has not delivered the promised certainty and truth, and its limitations are increasingly apparent. Our scientific understanding of time has changed, and the gulf with the basis of our modern knowledge system, absolute time, is widening.

Like the mystics, today we are uncertain how to proceed. One reaction might be to wonder whether history is also in danger of becoming, like the mystics that history helped suppress, what
Certeau calls “a proud tradition humbled” (1992: 21). Perhaps there is some danger—but certainly if we don’t consider these developments in other fields. Barbara Adam suggests the importance of a better understanding of time: “The explicit focus on time forces us to question established traditions, deprives us of old certainties and presents us instead with potential” (1995: 11). I agree; the recent decline in enrollments and criticism of humanistic inquiry make this a good time to reconsider our relation with pasts and our surroundings. Luce Giard’s description of Certeau’s goal helps reorient us: “to learn from the past how a social group traverses the desertion of its beliefs and how it might profit from the conditions to which it is subjected in order to invent its liberty and plot out a space of movement” (Giard 2015: ix). In his *Rhythmanalysis*, Henri Lefebvre argues that it is not about the self; he asserts that Descartes’s cogito has run its course. Instead, to think is to consider “the diverse relations between human being and the universe” (2004: 17).

In the same way that the absence of chronology helps us see isomorphisms across eras, a “future” can also provide us hints. By future, I am thinking not of what is unknown and ahead of us but of the ideas and understandings of twentieth-century science, many of which have not yet had a significant impact on history, and of affordances offered by digital media. Various theories, laws, and research—for example, on relative time, thermodynamics, biological times, and cognitive science—have suggested the simplicity and even inaccuracy of our current understandings of absolute time, absolute space, and the direct correspondence between object and meaning. Similarities between earlier modes of understanding and recent science raise the question of whether the rationality and science of the past three hundred years is the anomaly rather than the norm. The cognitive scientist David Herman suggests an understanding that connects nonmodern forms of understanding with current cognitive science: “The real becomes not a kernel of factuality to which all world-versions can and
should be reduced, but rather a zone of potentiality that refuses reduction to any single account of the way things are” (2013: 149).

OCCLUSIONS AND INVERSIONS

That there is a problem with linear time is certainly not a new contribution; scholars, including historians, have long criticized linearity. Today, more scholars acknowledge a general decline of the idea of “progress” and are critical of teleology, and the hope for some future seems absent, shallow, or short term (Bowker 2014). In German history, David Blackbourn and Geoff Eley (1984) raise the possibility of multiple modernities to get away from the teleology of modernization theory; the writings of Harry Harootunian, Masao Miyoshi, and Tetsuo Najita have been central to the current denial of modernization theory in Japanese history (Najita and Scheiner 1978; Miyoshi and Harootunian 1989, 2002). Of course, the rise of subaltern studies has decentered the imperium (Chatterjee 1986; Chakrabarty 2000), and an important debate calling teleology into question exists in queer studies (Boellstorff 2007a; Traub 2013). There is much more.

Yet despite a long history of criticism, the persistence of linear conceptualizations can be attributed to the way that chronological time is hidden, lurking in the shadows of such critiques. This will be discussed in chapter 2 on history. There are two basic acts that have recurred as I have considered chronology and historical understanding. In my readings on historiography, scholars often use words like occult, masquerade, specter, and so on to signify hidden forms that obscure the production and presentation of research. Often, it is unwitting, necessary for the reduction of vast material into relatively short (but still long) books or essays. Even more, there is a powerful structure that maintains the knowledge system, channeling historians to predetermined categories and questions. Thomas Kuhn writes, “In history, more than in any other discipline I know, the finished product of research disguises
the nature of the work that produced it” (1977: x). I doubt that history is alone here, but this is a lack of transparency for a discipline that prides itself on documentation (i.e., footnotes).

When I first encountered Kuhn’s comment, I thought about the primary material—the documents, stories, details, contingency, and discoveries—that is a part of the pleasure of research but is written out of our (often soporific) monographs. On the one hand, the criteria of documentation and the “fact” delimits and often eliminates experience, emotions, and the senses from modern history; the erasure of individual details, sensibilities, and their accounts is a part of the shift to a modern history. I recognize that numerous historians have been trying to reinstate many of these human sensibilities for decades but, I argue, have been restricted by a structure and methodology institutionalized over the past two hundred years. With the digital technologies, expanded archives, creativity of many historians, and multiple times, we can bring the heterogeneity of human experience as well as the variability of change back into history. In chapter 3, I argue that an understanding of heterogeneous pasts aids in recovering human sensibilities as a part of history.

I now read Kuhn’s statement to reflect a more sinister problem, a hidden (yet in the open for all to see) framework—chronological time. The difficulty of unpacking modern time is evident in Walter Benjamin’s critique of this empty, homogeneous time (1968b: 262). Benjamin’s words have been popularized by Benedict Anderson’s reuse of modern time as empty and homogeneous, thereby providing a critique—but one that reconfirms absolute time. While absolute time homogenizes (while recognizing unevenness), it is certainly not empty. It is only so if one overlooks the politics of its making—that is, the history of time and the history of history. When this recurs, the politics of time disappear into the particulars of becoming. This notion of empty is the working of chronology as an “alibi of time.”

Chronology emphasizes succession, the chaining of things one after another. It fosters a language of accumulation and
replacement. Inherited knowledge and practices, *historia magistra vitae* (history as life’s teacher), were reclassified into some collective singular—primarily the fragmentation of worlds into nation-states—while chronological time provided the structure for new arrangements, recategorization, and manipulations. In twentieth-century language, it is the organization of diverse places into the international order as well as a universal understanding of the world. In a different language, it is the ordering of heterogeneity into one homogenized system. For example, Steven Shapin describes the common notion of the Scientific Revolution as a rhetoric of “wholesale rejection and replacement” of new for old or modern over traditional (1996: 65–80). Chronological time is behind the rhetoric of many Enlightenment intellectuals who denigrate the old as a ploy to elevate their “new” ideas. It complements the presumption that humans (or, more accurately at that time, men) through reason effect change; they are not beholden to God, gods, or nature. And from this activity, societies can move from an originary state to an increasingly improved state to civilization—progress. We should not facilely follow the rhetoric, which is clearly an ideology (but our ideology). Chronology is the “hidden” foundation that enables the facile argument that the new is better than the old. Instead, this transformation was less a “new” that replaced an “old” and instead an inversion of the relation between inherited forms and the present. 

In *The Mystic Fable*, Certeau suggests that this emphasis on succession occludes other processes, especially that of reassignment and inversion. He argues that a way to understand and move beyond this linearity is to recognize the inversions that occurred and the need to historicize our research—that is, the very frameworks we operate within—and dehistoricize the objects of study. This is perhaps an odd statement for a discipline that considers itself reflective about historicism, historicity, historiography, and so on: the various ways that research and interpretation inflect the past. Certeau’s statement is a recognition of the ways that our
current scholarly practices, though historical and performative, have been accepted as natural and objective. This performativity is hidden in chronological time through the use of inversion but masked historically as succession. Inversion is a process that was central to the formulation of chronological time. By recognizing inversions masked through a framework of linear replacement and an ideology of progress (or development), we too can employ inversion to move away from the straightforward chaining of things as succession or replacement (from old to new).18

The trope of inversion recognizes that at the foundation of this adaptation of absolute time is the shift toward a structure that prioritizes change and movement over stability, and in that transformation existing practices and ways of knowing were inverted, not necessarily replaced. Inherited knowledge and practices were reclassified into new categories; primarily, the dead past or old things and worlds were fragmented or consolidated into nation-states. Chronological time provided the temporal order for new arrangements, reclassification, and manipulations. What had been a relational condition now became fixed; spatial units, using absolute space, were organized into a hierarchical order based on absolute time and naturalized through temporal narratives of becoming.

This Newtonian time inverts the norm of stability from one of repetition and recurrence to change and motion. This move is brilliant. Diverse times (that are largely cyclical and recurrent and that exist biologically, physically, and socially) are emplotted as some condition before or closer to nature (again, repetition). But this linear system depends on the unending recurrence of past and present. This separated past becomes a boundary marker, a way to contrast the present to what is dead and outmoded, thereby “proving” progress. It takes a relational and heuristic description and fixes the relationship as a function of time. Serres describes this process that reinforces oneself: “The advantage of having at one’s borders an hereditary enemy is immense. So is that of having a
dialectic in one’s logic. It allows one to remain comfortably within the concept, never to contemplate multiplicity” (Serres 1995: 83–84). Repetition is inverted from the stability of the society to the stability of the system. The separation of old from new becomes the repeated foundational process for the maintenance of the modern.

Chronological time also changes what we know and what we look for. Certeau argues this new history makes time, via chronology, a way of classifying data; it creates scriptural tombs.¹⁹ These “tombs” have been an important way to order the heterogeneous societies and new forms of objects being discovered since the fifteenth century. Time becomes a quantitative measure to determine distance, difference, and relations. Each place, object, event, and document becomes a unique point on a grid of time and space. Time establishes a distance between events, a sequencing for making connections, and a way to mark repetition or recurrence. It simultaneously establishes a value system—motion is better than stasis, linearity better than repetition, and new better than old—while depending on that which it denigrates.

BEGINNING: HISTORIES WITHOUT CHRONOLOGY

This did not start out as an ambitious project—to change how we think about time and history. But my historical training took over; historians follow the evidence. My evidence, reframed by the digital humanities, took me into the ways that humans have conceived of and use time. This inquiry ran into history—that is, the ways that our particular understandings of pasts have remained stable as understandings around them have changed. As I continue, my readings extend beyond the discipline. I must admit, I enjoy reading accounts of the Macy Conferences on cybernetics, whose purpose Gregory Bateson described as “the biggest bite out of the fruit of the Tree of Knowledge that mankind has taken in the last 2000 years” (Pias 2016: 11), or Lefebvre’s
*Rhythmanalysis*, which proposes “to found a science, a new field of knowledge: the analysis of rhythms” (2004: 3). I find these to be earlier versions of the quotes from Elias and Serres at the beginning of this introduction. I have constantly been reminded as I continued this work that despite the brilliant work of scholars before me, historians tend not to appropriate material and ideas unless it suits the discipline. For a discipline that is strongly empirical, this is at best ironic. It confirms Blumenberg’s statement that “no one ever asks for [time’s] chronology” (1985: 100). Chapters 1 and 2 ask.

This raises an interesting tension in this short book. I am not nearly as confident (nor able) as Bateson or Lefebvre. My goal has been to provoke discussion in the historical discipline. Yet by pushing to expand how historians approach pasts, it connects to historical thinking that is tied to so many fields of the humanities and social sciences. I see this as the need for and centrality of historical thinking, of history in our contemporary world.

The digital humanities has also offered hope that there are other ways to do things. This, of course, is a frustration, as so much of digital media (and, even more, technology) is used to reinforce the existing system and conceptual structures. So be it; it can also offer ways outside of the silos. But to do so, we must both embrace and interrogate basic structures. It is not that hard to see the possibilities, once we start looking for understandings of pasts based on heterogeneity and nonlinearity (chapters 3 and 4). It is the basis of human life and societies (in Fraser’s words [1987], life processes, the creativity of mind, and social activity); it is in science—the role of perspective, location, and situatedness; and it is biology—the ways that time is internal to organisms and communities of practice. These reinforce a comment by psychologist Sam Wineberg that historical thinking “goes against the grain of how we ordinarily think” (2001: 7). In short, heterogeneity, multiple times, and complexity are around us but are obscured by a knowledge system that emerged to control this heterogeneity through an orderly and
homogenizing system. The potential is to recover these human practices and sensibilities.

In the second half of the book, I explore how we can attend to this world of multiples—heterogeneity of pasts and multiple times—to understand how people use and appropriate pasts in their present. This statement can also describe history today, but the key difference is in the multiple, which inverts time from an externality to a part of human activity prior to categorization, and in the need for other ways to connect these multiples—for example, through conjunction (Braudel 1980) or coincidence (Boellstorff 2007a) rather than successive emplotment.

In chapter 3, I reconceive of how we represent pasts, allowing for a preservation of the heterogeneity of forms prior to categorization into homogenizing categories. First, we need to reengage with history again to dehistoricize what we study, placing things, people, and objects back into their “contemporary configuration.” This effort to use the situatedness of things is in contrast to the way that objects have been abstracted by using dates along a universalizing chronology to enable separation and reinsertion. When we do so, we find layered and complex interactions that help us see the myriad influences on people, ideas, and things as they interact and transform. Second, to historicize our research is to pay attention to what Fraser (1987) calls histories, a notion of history as a place of local knowledge where diversity is preserved.

Chapter 4 explores ways that such activities connect—sharing, interaction, relations, adaptation, and transformation—or don’t with other communities of activity. The goal is to think anew of relationality and emergence, what historians usually reduce to change. But change is not a truism (“change across time”), something that happens or does not in relation to movement. Indeed, these units emerge from repetition, and if we accept entropy or homeostasis, change is much more various: it can be a part of the process of maintenance, of a dynamic equilibrium; it can be decay, occurring at different rates depending on the internal
time of the activity and happening through various layers both in and not in connection with others. These histories are independent, coterminous, or parallel each other and exist within, alongside, or autonomous from a universalistic, linear time, what Fraser (1987) calls (and fears) the world-time compact.

Finally, for the practice of history in the digital age, with increasingly instant accessibility to information about pasts, the role of the historian as expert of “facts” during a particular time and space of the past becomes decreasingly important. Instead, the historian, whose strength has always been interpretation of myriad pasts, becomes highlighted. Again, we should remember Droysen’s sage comment that is reducible to a meme: “Facts are stupid without interpretation.”20 The inversion we need is to consider facts as what they are—information. Information can be abstracted—Shannon’s bits separated from meaning—or “facts” can be abstracted from the situated conditions. Information can also be ideas, things, memory, and inherited knowledge that people use to create understanding, make decisions, and convince others. As Paul Duguid and John Seely Brown (2000) argue, information has a social life. Instead of knowing, the historian who can make sense of data—judgment, manipulation, interpretation, and rhetoric—becomes even more important in the digital age.

History is much too important a field to be limited to a knowledge system of places and things. It will be needed and can be even more important (my hope) in the future. I will end by invoking Prigogine and Stengers (1984), a physicist and a philosopher of science on complexity, and Certeau, a historian of sixteenth-century mystics. In their epigraph the former see how our understanding shifts from objects and being to relations and communication; the latter uses this as an intellectual quest, to “reorganize places for people to communicate” (1992: 165).