

ARTICLE

HISTORICAL PRACTICE IN THE ERA OF DIGITAL HISTORY

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ABSTRACT

The current digital historical moment is an opportunity to formulate a new theory of historical practice. Our field's long-standing passive reliance on the widespread explanation of historical practice as deriving information from "primary sources" is unhelpful, incoherent, misleading, and an active inhibition to new opportunities. Our reliance on an incoherent explanation means our students are not given a precise description of our historical practice but instead learn to imitate us by gradually adopting disciplinary norms conveyed through exemplary models and the critique of work performed. Furthermore, our reliance on a misleading explanation of method means we lack a common terminology with which we all can coherently explain to our peers what we actually do. We know this, and yet we have provided no alternative. The current moment offers an opportunity to provide a theory of the practice of history that encompasses contemporary, traditional, and even ancient historical methods: capturing *sources*, producing *data*, and creating *facts*. Wide acceptance and implementation of a sources-data-facts model of historical practice will accelerate student understanding, improve communication with other disciplines, erase the apparent distinction between (so-called) analog and digital history, and provide a framework for the publication of historical data as a valuable end in and of itself.

Keywords: Augustine, data, Eusebius, method, pedagogy, practice of history, sources

To the extent that it is possible, use clarity to recognize the nature of the investigation which confronts you, and then proceed resolutely.
—Eusebius of Caesarea, *Chronicle*²

1. I offer sincere thanks to the contributors to the 6 May 2022 virtual roundtable "What Makes History Digital? Why (and How) Digital History Is Happening Now" for reflections that became the direct impetus for this article. I thank the journal editors and Elizabeth Boyle for their feedback, suggestions, critiques, and expert copyediting. Kathryn L. Jasper and Tyler Lange both dropped what they were doing to try to help me bring order to the ideas here, and I cannot thank them enough for the good humor and generosity with which they did so. This article is dedicated, with thanks for their unending enthusiasm, to my students.

2. Eusebius, *Chronicle*, transl. Robert Bedrosian, accessed 31 July 2022, <https://rbedrosian.com/euseb1.htm>. This translation by Bedrosian comes from the Armenian version of Eusebius's *Chronography*. For Bedrosian's complete translation, see "Eusebius' *Chronicle*: Translated from Classical Armenian," History Workshop, <https://rbedrosian.com>. For the original text, see the critical edition in *Eusebii Pamphili: Chronicon bipartitum*, ed. and transl. Jean-Baptiste Aucher, 2 vols. (Venice, 1818), 1:4–5.

The present theme issue found its impetus in the contributors' shared desire to articulate and thereby clarify the nature and implications of practicing digital history. Our shared understanding is that the question of what to do with or about digital history is a crisis that can be turned into an opportunity for both historical practices and historical pedagogies. For many historians, the phrase "digital history" is the sound of yet another crisis in the ongoing clash of old practices with present trends. For many, digital history means Digital History: not just something *new* but something *other*. Furthermore, it is not only the digitally wary but even some digital practitioners who sense there are deep, structural inhibitions to the field of history's incorporation of the digital. The context for this tension raises the stakes of the discourse. There is a field-wide awareness that students and the public want something more from the study of history and are turning to other disciplines (and genres) to find it. My contribution in this moment at the crossroads begins from the premise that our students' disciplinary recalcitrance is linked directly to our own disciplinary crisis. I argue that we can do something that can address both problems. That something is to retheorize historical practice by revisiting the role of *data* in the practice of history. If we do so, we can empower exponentially more practitioners of history, we can greatly expand the number of activities we consider to be historical publications, and we can make it possible to communicate and collaborate with our colleagues in the digital humanities, in data science in particular, and in the sciences and humanities in general in a much more coherent and open manner.

In order to theorize historical practice for the digital historical moment, I propose that we finally explain how it is that we turn *sources* into *facts*. I argue that the key lies in identifying the creation of historical *data* as integral to any historical practice. I set up this argument by defining *data* as including, but not limited to, *digital data* (section 2). I then argue that the assumption of the *auctoritas* to define materials as *sources* is an active step in historical practice, the first in any historical inquiry (section 3). Examples from the works of Eusebius of Caesarea and Augustine of Hippo illustrate the point by first distinguishing their selection of materials as *sources* from their construction of *data* and by then distinguishing their subsequent creation of *facts* from that *data*; each are distinct and dynamic steps in their practice of history (section 4). In conclusion, I propose (section 5) that the theorization we require consists of defining how central the creation of historical data is *and always has been* to the historical method and acknowledging that the present moment offers an opportunity imbued with some urgency. Our problem is not that historians lack interest in practicing digital methods or that there is anything fundamentally at odds between "analog" and "digital" history. At this point in history, we demonstrably *all* use digital practices.³ Our problem is

3. See Stephen Robertson, "The Properties of Digital History," *History and Theory* 61, no. 4 (2022) and Laura K. Morreale and Sean Gilsdorf, "Introduction: The Medievalist, Digital Edition," in *Digital Medieval Studies—Practice and Preservation*, ed. Laura K. Morreale and Sean Gilsdorf (Leeds: Arc Humanities Press, 2022), 1–2.

that we have failed to explain what we do in clear and colloquial terminology, and in terms that align with both common usage and actual practice.⁴ The apparent conflict is simply the result of this absence. But to change any of this, we first must stop telling our students lies.

I. THE LIES WE TELL

Historians teach students that history is created through primary and secondary sources.⁵ Historians also do not, in actual practice, do anything of the sort: we do not categorize objects of study into primary and secondary sources, nor do we conduct research in terms of *primacy* and *secondness*. Nevertheless, this terminology is as ubiquitous as it is useless. I do not need to prove this point to the present reader. What I will evoke in my reader—my fellow academic historian—is guilt over how pervasive this terminology is. You, me, we all are to blame for what follows. First, consider what any student who wants to understand the term “primary source” just uttered by their high school history teacher will read on Wikipedia today: “In the study of history as an academic discipline, a *primary source* (also called an *original source*) is an artifact, document, diary, manuscript, autobiography, recording, or any other source of information that was created at the time under study. It serves as an original source of information about the topic.”⁶ A source is an original, and the sign of its originality will be in the nature of its form: an archaic form lends nearness to “the time” of “the topic” about which it can provide “information.” Unsurprisingly, nothing in this entry explains what a historian does with source material, or what actually leads to materials from the past being designated as “sources.”

Another popular example comes from one of the most visited undergraduate guides for history research in the United States, that of Georgia State University (Figure 1). At that portal, students are instructed in the following way:

4. Wild On Collective, “Theses on Theory and History,” *Verso Books Blog*, 25 June 2018, <https://www.versobooks.com/blogs/3893-theses-on-theory-and-history>: “Norms of training and publishing reinforce disciplinary history’s tendency to artificially separate data from theory, facts from concepts, research from thinking. This leads ‘theory’ to be reified as a set of ready-made frameworks that can be ‘applied’ to data.”

5. Even for William H. Sewell Jr., “history is . . . defined by its careful use of archival or ‘primary’ sources, its insistence on meticulously accurate chronology, and its mastery of narrative” (*Logics of History: Social Theory and Social Transformation* [Chicago: University of Chicago Press, 2005], 3).

6. Wikipedia, s.v. “primary source,” last modified 5 August 2022, 15:22, https://en.wikipedia.org/wiki/Primary_source.

Primary sources are the **raw materials** of historical research - they are the documents or artifacts closest to the topic of investigation. Often they are created during the time period which is being studied (correspondence, diaries, newspapers, government documents, art) but they can also be produced later by eyewitnesses or participants (memoirs, oral histories). You may find primary sources in their original format (usually in an archive) or reproduced in a variety of ways: books, microfilm, digital, etc.

In contrast...

Secondary sources are interpretations of events written after an examination of primary sources and usually other secondary sources, such as books and journal articles.

Figure 1. Screenshot from the Georgia State University Library's webpage for history research. See "History: Primary Sources: Definition," GSU Library Research Guides, Georgia State University Library, last modified 15 July 2022, <https://research.library.gsu.edu/primaryhistory>.

Primacy, here, inheres ontologically in explicit *rawness* and nearness to the topic, as indicated by the corresponding bolded enlarged maroon font. Secondness in sources is made visible by a multi-space break and an "In contrast" border wall delineating these sources that are marked by interpretation and by their dependence on the items that are *primary* in relation to *the event under investigation*. But, if we are honest with ourselves and with our students, what is in any way *secondary* about the scholarly literature that frames an investigation and is the material from which a nascent researcher almost always acquires their idea for an investigation?

In pursuit of explanation of the historical method, we will find the same discourse in portals with claims to authority. An Oxford University undergraduate is directed by the Bodleian Library to subject-specific research guides,⁷ and a student pursuing history is encouraged to read "Research Training for Historians,"⁸ wherein one of the first links is to the intimidating academic URL of the Institute of Historical Research: www.history.ac.uk. The IHR provides truly impressive up-to-date modules for historical researchers interested in full integration into the current digital history moment; the available modules cover topics including databases, data preservation, database design, digital tools, digital citation, digital mapping, digital paleography, and online history.⁹ Nevertheless, under the fundamental module for historical research—"Methods and Sources for Historical Research"—a student will find the following description:

Original research on primary sources lies at the heart of the historian's enterprise, yet the techniques necessary to locate and obtain archival materials are rarely taught and can be hard to acquire. The aim of Methods and Sources for Historical Research is to equip

7. "History," Oxford LibGuides, Bodleian Libraries, last modified 26 April 2022, <https://libguides.bodleian.ox.ac.uk/history>.

8. "History: Research Training for Historians," Oxford LibGuides, Bodleian Libraries, last modified 26 April 2022, <https://libguides.bodleian.ox.ac.uk/history/training>.

9. "Research Training," Institute of Historical Research, University of London, accessed 31 July 2022, <https://www.history.ac.uk/study-training/research-training>.

researchers with the knowledge, skills and confidence to track down and use all the sources relevant to their projects, wherever they are to be found, be that in published form, online or in repositories.¹⁰

Students are promised sources, *primary* sources.¹¹ And though every student who visits this website will certainly intuit that they *know* what this *means*, could any student coherently explain what is *actually primary* about a primary source?

Like every historian, I teach historical practice through sources and source material. But at no stage in my instruction do I actually engage in meaningful analytical distinctions between the relative ontological primacy of the sources with which my students are working. Instead, in practice, we historians survey anything and absolutely everything that can help us understand what it is we are trying to investigate. If I am trying to pursue the reckoning of historical time in ancient Babylon (an example that will reappear later in this article), I will pursue the best records of Babylonian historical timekeeping that I can find. That will involve pursuing scholarly critical editions of ancient Greek accounts of Babylonian writings. It will involve trying to identify actual surviving cuneiform inscriptions in museums that I can ideally visit both in person and through online exhibits. It will also involve my thorough reading of everything I can find and comprehend about what scholars over the previous 150 to 200 years have had to say regarding Babylonian chronology. In a meaningful way, not a single one of these items is *primary*. To actually understand the creation of historical time in Babylon, I would need to observe and follow an ancient Babylonian chronographer in their process and method of creating an indigenous chronology. In a meaningful way, it is also true that every single one of these items is *primary* in the sense that they are each *essential* to the practice of history. To pursue my investigation from the remove of the twenty-first century, I would not dare to proceed without each of these resources and more: the ancient Greek accounts will be essential sources on how non-Babylonians understood Babylonian historical time; the inscriptions will be essential sources on written forms of Babylonian historical time; and the scholarly studies will be essential sources on how these items have been understood, interpreted, and discussed up to the present. There is no meaningful way in which these materials can or should be distinguished as primary, secondary, or tertiary. What do we *actually do* with and to all of those sources in order to turn them into historical *facts*, *arguments*, and *narratives*?

The path that I believe we must follow, and for which I will argue in this article, lies in the language of digital history. This path reveals itself in a telling misnomer found in a standard handbook of historical methodology in American undergraduate education: *The Craft of Research* (now in its fourth edition). There, we find

10. "Methods and Sources for Historical Research," Institute of Historical Research, University of London, accessed 31 July 2022, <https://www.history.ac.uk/study-training/research-training/methods-and-sources-historical-research>.

11. The approach articulated by the Stanford History Education Group (which is led by Sam Wineburg) is similar; it ignores the question of describing method in favor of providing outstanding education in the close and careful reading of many different kinds of materials by labeling everything "evidence." See "History Lessons," Stanford History Education Group, Stanford University, accessed 31 July 2022, <https://sheg.stanford.edu/history-lessons>.

the authors explaining sources for historians by contrasting “the sources” for two related fields. To do so, they turned to the term “data”:

[Primary sources] provide the “raw data” that you use first to test your working hypothesis and then as evidence to support your claim. In history, . . . primary sources include documents from the period or person you are studying, objects, maps, even clothing; in literature or philosophy, your main primary source is usually the text you are studying, and *your data* are the words on the page.¹²

The Craft of Research's authors explicitly used the term “data” to describe historians' relationship to their materials. Literature and philosophy take words on the page *as data* for granted. The validity of these comparative caricatures aside, the distinction here is in truth merely rhetorical and relies on an inaccurate and incorrect use of terminology. If historians' “primary sources” are “documents”—which, in most instances, consist largely of words on pages—does that not make “words on the page” also the “data” of historical practice?

The authors of *The Craft of Research* offer their undergraduate readers no usable explanation of the relationship between “sources” and the “data of history.” Their explanation—like all explanations that try to use the idea of a “primary source”—immediately collapses upon interrogation. Every one of my readers could supply this and numerous other critiques of this set of instructions. And yet, as a collective, we historians have failed—completely—to provide an alternative. Where *The Craft of Research*'s authors turned to the term “data”—which, it will be worth remembering, means “givens”—is the thread to follow. I contend that if we can explain historical *data* (whether digital or not)—what we take to be the *givens* in our arguments, and how we get or make those *givens*—and its long-standing place in historical practice, we can clarify our method. Historians certainly *do* have material that we take to be *given* or “for granted,” but there is a different relationship between *sources* and *data* than is stated in *The Craft of Research*. The difference is the black box of historical practice—the black box that our students, those of us practicing “digital history,” our colleagues in the digital humanities, and our peers in fields from data science to economics to geology would have us make clear. This black box of historical practice—or, to use another metaphor, our mystery cult's dearly protected secret rite—is simply the process whereby historians go about *creating our own data*.¹³ Historians create data by first turning everything we can find into a source. This is the secret

12. Wayne C. Booth, Gregory C. Colomb, and Joseph M. Williams, *The Craft of Research*, 3rd ed. (Chicago: University of Chicago Press, 2008), 69 (emphasis added). For additional context, see *ibid.*, 68–70.

13. In this theme issue, Silke Schwandt uses this same metaphor to argue for the same general point of methodological explanation: “We need to break our research interests down into manageable steps, document our hypotheses and conclusions, and open the ‘black box’ of our interpretation processes” (“Opening the Black Box of Interpretation: Digital History Practices as Models of Knowledge,” *History and Theory* 61, no. 4 [2022]). Schwandt builds from this to propose wider practices of making the entire process of historical epistemologies explicit (or “operative”) through modeling and apparent to others through visualizations of working hypotheses. In using the same metaphor for different aspects of historical practice, I join Schwandt in calling for greater methodological openness and greater valuation of the *process* of knowledge creation.

act—unanalyzed and undiscussed but completely universal—with which we must begin.

II. DATA IS NOT (NECESSARILY) DIGITAL

In order to move from criticism into the propositional portions of this article, I need to make clear the concept of *data* upon which my argument builds, for “very few traditional humanists would call their source material ‘data.’”¹⁴ In their 2019 *Internet Policy Review* article titled “Datafication,” Ulises A. Mejias and Nick Couldry distinguished between two ideas of *data*. On the one hand is the specific kind of data that data analysts (academic, commercial, and governmental) are interested in generating: “*digital data* out of human life.”¹⁵ On the other is a more general idea of data for which Mejias and Couldry quoted Rob Kitchin: *data* in this larger sense is “material produced by abstracting the world into categories, measures and other representational forms . . . that constitute the building blocks from which information and knowledge are created.”¹⁶ My argument here relies on retaining that latter, general concept of data (which includes the former) both because data in this sense can serve as a shared term (keeping digital and analog historical practices within the same methodological discourse) and because data in this sense can enable us to communicate our methods clearly to peers and to students in a shared, common terminology. *Data* in what follows therefore includes, but is not limited to, *digital data*, since data includes all abstractions of experience set into commensurate “building blocks from which information and knowledge are created.”

As I will argue below, the creation of such data is and always has been central to the practice of history. That point, however, should not be taken to mean that there is no good reason behind historians’ struggles with *digital data* and *digital history*. In previous eras, almost all of the data used for history was data made by previous historians. *Digital data* is different not so much because it is digital but because it is created by non-historians and not (necessarily) for the purpose of historical investigation. The difference with *digital data* is that it is rarely our own. Using *digital data* as a source means developing a source criticism specific to that source, as in Jennifer Guiliano’s *A Primer for Teaching Digital History: Ten Design Principles*.¹⁷ This is urgent work: digital data for history now includes not only digital-born data (which has only ever existed in computer-readable

14. Miriam Posner, “Humanities Data: A Necessary Contradiction” (lecture, Harvard-Purdue Data Management Symposium, Harvard University, Cambridge, MA, 17 June 2015), <https://miriamposner.com/blog/humanities-data-a-necessary-contradiction/>.

15. Ulises A. Mejias and Nick Couldry, “Datafication,” *Internet Policy Review* 8, no. 4 (2019), 2 (emphasis added). For more discussion of related key terminology as it relates to digital scholarship, see Johanna Drucker, *The Digital Humanities Coursebook* (New York: Routledge, 2021). On “data” in particular, see *ibid.*, 20–27; on distinctions between what is meant by “humanities,” “digital,” and “computation,” see *ibid.*, 1–2, 4–5, 9.

16. Rob Kitchin, *The Data Revolution: Big Data, Open Data, Data Infrastructures and Their Consequences* (London: Sage, 2014), 1, quoted in Mejias and Couldry, “Datafication,” 1–2.

17. On practices of source criticism, see Jennifer Guiliano, *A Primer for Teaching Digital History: Ten Design Principles* (Durham: Duke University Press, 2022), 85–95, especially 89–91. Specifically, Guiliano pointed out the need to distinguish between *structured* and *unstructured* data (20) and built

form) but digitizations of objects (artifacts, manuscripts, sites, et cetera) and texts (editions, studies, et cetera). As Mateusz Fafinski has made clear, when we use digital archives of digitized manuscripts, we are (for instance) looking not at the original material but at a distinct digital object.¹⁸ The *Biblioteca Apostolica Vaticana* (Vatican Library) contains objects that are distinct from those contained in the DigiVatLib even though all of the objects (whether actual codices or digital images thereof) have the same shelfmarks, titles, and folio numbers.¹⁹ The digital object is not the material object; it is a separate entity that requires its own critical analysis and source criticism and that also then permits of different questions than the material object it represents.²⁰ This is hard work, and even historians who (like myself) came of age in the era of digitization did not receive formal training in best practices for how to use *digital data*—created by others for the simple purpose of recording and creating digital data out of human life—as a *source* for history.²¹

Nonetheless, the tension between these two approaches to data is a productive tension and is exactly what this article aims to turn from an apparent division between “digital” and “analog” history into a point of commonality not only among historians but between practitioners, students, and collaborators. Guiliano’s approach in her brilliant *Primer for Teaching Digital History* also uses this point as a premise when her discussion moves from the narrower definition of data as *digital data* (“information that a computer can understand”²²) to the point that all historians already use data. If for a scientist data means “observable and reproducible,” for historians data is both “historical remnants” *and also* “material that we’ve assembled in the process of our own research.”²³

It is essential to underscore this hybrid nature of historical data today. Historians now build our arguments and narratives out of both digital and analog materials. Historians treat past materials as *data* in their own right (“past” here encompasses ancient and modern eras) and also create our own data out of *sources*. It should also be clear that there is nothing fundamentally new about historians’ use and creation of *digital data* as opposed to their use and creation of data *generally*: “Data is our raw material for historical analysis. It is also the output of our research processes: monographs, articles, digital projects, digital assets, and

on Jill Walker Rettberg’s adaptation of the language of “situatedness” (22) to critique the process of the creation of data before making use of it in historical analysis.

18. Mateusz Fafinski, “Facsimile Narratives: Researching the Past in the Age of Digital Reproduction,” *Digital Scholarship in the Humanities* 37, no. 1 (2022), 98: “Digital facsimiles are representations, not reproductions. . . . This can only be fully understood when we view digital facsimiles as entities separate from the sources they aim to represent. . . . The very creation of a digital facsimile is a complex process of remediation.”

19. See DigiVatLib (website), Vatican Library, accessed 4 August 2022, <https://digi.vatlib.it>.

20. Fafinski, “Facsimile Narratives,” 101: “Digital facsimiles are separate ontologically from their exemplars, bringing with them their own problems and narratives. But at the same time, they are also anchored in the already existing narratives surrounding their exemplars. This double narrative entanglement of digital facsimiles makes them particularly complex methodologically.”

21. Fafinski, “Facsimile Narratives,” 103: “the question of digital methodology in history is no longer (if it ever was) confined to the field of digital humanities.”

22. Guiliano, *A Primer for Teaching Digital History*, 19.

23. *Ibid.*, 21.

the like.”²⁴ We—all of us—already “use various forms of data” from everything that has and can have a digital form or representation, from prose text and images to cutting-edge digitizations such as those created through the Digital Analysis of Syriac Handwriting project.²⁵ It is, in other words, only a matter of time before no practicing historian will be able to claim to be “analog” only. The practice of history is as digital as the world in which it is being made and with which it communicates.²⁶ What we need to do is describe and define what we already practice: What is the relationship between *data* and *sources*?

Having defined specific aspects of historical work as data, Guiliano specified the process of data creation within traditional practices of history by making a distinction between *data* and *sources*: “*Sources* must be contextualized in terms of their acquisition, analysis, and interpretation *in order to render them as* meaningful pieces of *data*. This is the work we’ve been doing as historians for centuries as we discuss source context and how sources relate to questions of authenticity, power, and identity.”²⁷ The practice of history is built upon (though not limited to) the practice of turning *sources* into *data* (as we have defined it). Such *data* is—and, I will argue, always has been—fundamental to history. I can now pursue that argument and its implications by focusing on the prior step: What do historians actually mean by “sources,” and how does history’s definition of all its subject materials *as sources* implicate the sort of data we produce?

III. SOURCE-ERY: THE HISTORIAN’S BEWITCHING GAZE

Historians think in terms of sources, by which I mean that perhaps the most uniquely distinctive act in the practice of history is to take each and every object that is pertinent to our research and determine *on what* (singular or plural) is that item *a source*. This includes *all* items we consult. In the above fictional example of Babylonian chronology, I would never draft, publish, or teach anything about the subject without consulting the work of my colleagues. This is because my colleagues’ publications are an essential *source on* what is known and understood about Babylonian chronology and the current state of the collective investigation. Such scholarship is of primary importance, an essential source for any inquiry. Furthermore, just because something is relatively proximate in time and space does not mean it will give access to knowledge, let alone to truth. To study the (hypothetical) surviving cuneiform tablets well, I need to distinguish in my mind *on what exactly* these are good sources. Exactitude here means specificity and a limited scope: these tablets primarily testify to what has survived from one

24. *Ibid.*, 22.

25. *Ibid.*, 20. See also Michael Penn et al., “A New Tool for Computer Assisted Paleography: The Digital Analysis of Syriac Handwriting Project,” *Hugoye* 24, no. 1 (2021), <https://hugoye.bethmardutho.org/article/hv24n1penn>.

26. As Shahzad Bashir argues in this theme issue, this does not mean that the transition to digital forms of publication (for instance) does not require difficult and unfamiliar work. Bashir proposes beginning this change with a paradigm shift that recognizes the traditional print book not so much as a *structure* but as a *performance*. See his “Composing History for the Web: Digital Reformulation of Narrative, Evidence, and Context,” *History and Theory* 61, no. 4 (2022).

27. Guiliano, *A Primer for Teaching Digital History*, 22 (emphasis added).

moment in the past and from one place at a moment when this particular chronology happened to be inscribed in this specific form by some specific person (or group). To derive anything from said items (which I have decided are my *sources*), I need to honestly account for the limitations of the evidence. No matter what item I am looking at and turning into a *source*, the process of doing so is the process of (with great care and much consideration) determining *on what* each item could be a *source*. To continue working with the tablets, as above, I will ask whether most temporal accounts at the time were written down differently and whether they were written on materials that did not survive: my tablet may well be an anomaly. I will investigate whether most temporal accounts were transmitted or experienced, say, orally as poetry or through performances and liturgies. And so on. We do this as a habit, but we must make clear to ourselves, to our students, and to our colleagues how and why this part of our historical thinking and practice is so essential. To do so, we must abandon any and all descriptions of sources as inherently *primary*, *secondary*, *tertiary*, et cetera, and in place of those terms, we must apply the conclusions of a decades-long discourse in the digital humanities that was initiated by Drucker's distinction between *capta* (what is taken or seized) and *data* (what is given).

3a. Sources: Are They Data (Given) or Capta (Taken)?

Drucker's discourse-shaping 2011 article titled "Humanities Approaches to Graphical Display" called for "a radical critique" that would "return the humanistic tenets of constructed-ness and interpretation to the fore."²⁸ Specifically, Drucker's critique identified that preconceptions about the nature of *data* led to uncritical readings of visualizations produced from that data. In other words, simplistic uncritical readings of visualizations were not so much evidence of problems with the visualizations as they were the result of misconceptions about the nature of the data being visualized. Drucker argued that this uncritical approach to data had led to a troubling realism in her field:

Realist approaches depend above all upon an idea that phenomena are *observer-independent* and can be characterized as *data*. Data pass themselves off as mere descriptions of a priori conditions. Rendering *observation . . . as if it were the same as the phenomena observed* collapses the critical distance between the phenomenal world and its interpretation, undoing the basis of interpretation on which humanistic knowledge production is based.²⁹

There are certainly parallels between this critique and the familiar methodological straw man of historical positivism's "objective" approach to *the sources*. Nonetheless, Drucker did not merely critique; she also provided a solution to this way of thinking. That solution was to "*reconceive all data as capta*."³⁰ This new description of the originating materials of her field was the means to confront the embedded realism in how digital humanists treated *data*. Drucker explained:

28. Johanna Drucker, "Humanities Approaches to Graphical Display," *Digital Humanities Quarterly* 5, no. 1 (2011), para. 1, <https://www.digitalhumanities.org/dhq/vol/5/1/000091/000091.html>.

29. *Ibid.*

30. *Ibid.*, para. 3.

Capta is “taken” actively while *data* is assumed to be a “given” able to be recorded and observed. From this distinction, a world of differences arises. Humanistic inquiry acknowledges the situated, partial, and constitutive character of knowledge production, the recognition that knowledge is constructed, *taken*, not simply given as a natural representation of pre-existing fact.³¹

In a one-decade-on reflection, Matthew Lavin proposed that digital humanists had received and sufficiently incorporated this gospel.³² Lavin argued that *capta* is no longer needed as a distinct concept: everything Drucker wanted to get out of the etymology of “*capta*” is also present in a more nuanced history of the use of “*data*” in English. Thus, for Lavin, “*data*” can continue to be the central originary term in the field as long as it is taught not as “*givens*” but as (for instance) “*situated knowledge*”³³ or, more specifically, “*situated data*.”³⁴ That may be the case. But the point for my purpose here is that this debate in the digital humanities over whether *data* are actually *capta* is a model for historians to finally explain what it is that *we* do and—particularly pressing for digital history—to do so in a manner that makes obvious how to connect traditional historical practice to the creation and use of data to make any historical argument.³⁵

Drucker redefined how digital humanists conceive of their *data*, insisting that the field recognize that “*data are capta*, taken not given, constructed as an interpretation of the phenomenal world, not inherent in it.”³⁶ I propose that historians retain both concepts—*data* and *capta*—and identify a distinct part of the historical method for each. That is, historians can productively make use of Drucker’s intervention and her proposed terminology in two ways. The first is to apply Drucker’s idea of *capta* to the mental operation historians do in turning every item we work with into a *source on something* about which we want to know. The second is to use the concept of *data* to distinguish and define a middle step in the historical method: what historians do with our *sources* before we go about constructing our *facts*. That second step is defined in section 4 of this article. First, I will apply Drucker’s notion of *capta* to how historians use source materials in order to forever leave behind the idea that historians divide sources into “primary” and “secondary.”

31. Ibid.

32. Matthew Lavin, “Why Digital Humanists Should Emphasize Situated Data over Capta,” *Digital Humanities Quarterly* 15, no. 2 (2011), para. 25, <https://www.digitalhumanities.org/dhq/vol/15/2/000556/000556.html>. See also *ibid.*, para. 30, 35–36.

33. *Ibid.*, para. 9–23.

34. On the work to apply the concept to the digital humanities and digital history, I follow Guiliano in pointing to Jill Walker Rettberg, “Situated Data Analysis: A New Method for Analysing Encoded Power Relationships in Social Media Platforms and Apps,” *Humanities and Social Sciences Communications* 7, no. 1 (2020), <https://www.nature.com/articles/s41599-020-0495-3>, and Roopika Risam, “‘It’s Data, Not Reality’: On Situated Data with Jill Walker Rettberg,” *Nightingale*, 29 June 2020, <https://medium.com/nightingale/its-data-not-reality-on-situated-data-with-jill-walker-rettberg-d27c71b0b451>.

35. Stephen Robertson and Lincoln Mullen, “Arguing with Digital History: Patterns of Historical Interpretation,” *Journal of Social History* 54, no. 4 (2021), 1008: “argument-driven scholarship based on digital research is not always visible as digital history when the emphasis is on interpretation rather than on method.”

36. Drucker, “Humanities Approaches to Graphical Display,” para. 8.

3b. *Capta for Historia: Seizing Sources, for Worse or for Better*

As a careful historian, I thoughtfully define exactly *on what* the surviving material evidence from the past can be a good *source*, and I work to limit my hypotheses to those strictures. I might, for instance, decide that the cuneiform tablets I am examining are a really good *source on* inscription practices *in general* and perhaps a viable *source on* chronological thinking at the time of their creation. I will generate and file away notes on both of these investigations.³⁷ I might also—using the same material evidence but for an entirely different inquiry—decide that the same cuneiform tablet (let us say it is now held in a museum in Europe) is an excellent source on the seizure of artifacts at the service of European imperializing colonialism.³⁸ The methodological impetus here is the determinative *authority* of historical investigation: to categorize anything and everything under view *as a source*, and to then wield the authorial power to decide *on what* those items are going to be used *as sources*.³⁹

How any historian wields the authority to make these determinations has been analyzed, critiqued, and allegorized by most all theorists of historical practice: this *authority* embeds into our investigation what students like to call “bias,” the subjective positionality in the performance of any investigation. Metaphors aptly describing how historians turn all materials into *sources* may indict the work of doing history. If they do, that indictment applies with equal force to the practices of much, if not all, modern academic inquiry as well as to other sorts of inquiries, such as legal investigations into causation and guilt. For instance, a historian might begin with a preconceived historical hypothesis and, like a conqueror, seize everything in sight in order to solve a preconceived, predetermined historia, their investigation.⁴⁰ As Priya Satia has made strikingly clear, in an actual—not

37. In this analytical process, we might still find a use for the terms “primary” and “secondary,” but that use may be as adverbs referring to our intended usage rather than as adjectives denoting a quality of the item in question. That is, there are aspects of my investigations *for which* any given item might *primarily* or *secondarily* be used as a source, and I will organize and categorize different portions of my notes accordingly.

38. See, for example, Dan Hicks, *The British Museums: The Benin Bronzes, Colonial Violence and Cultural Restitution* (London: Pluto Press, 2020).

39. On this point, see Lisa Regazzoni, “Unintentional Monuments, or the Materializing of an Open Past,” *History and Theory* 61, no. 2 (2022), 242–68, wherein Johann Gustav Droysen’s concept of “intentionality” is used to clarify the same specifically historical activity with which I am concerned here. According to Regazzoni, “it is the inquiring historians or antiquarians who turn to the past and whose choice of meaning is determined by their subjective position. *They* invest these objects with historical value or give them meanings that may not have originally been intended by their makers. . . . [I]t is vital to emphasize that *the distinction between intentional and unintentional monuments is by no means an ontic one*, since witting monuments and other items can also acquire new historical significance that is alien to their original purpose. In other words, *it is the question that transforms intentional monuments into historical monuments*” (249; emphasis added in the final two sentences).

40. The depiction of the historian as an imperialist explorer is offensive, but it is nonetheless a commonly used metaphor, as in *The Craft of Research*: “If you plunge into any and all sources on your topic, you risk losing yourself in an endless trail of books and articles. . . . [I]f you have a deadline, you need more than luck to find good sources in time: you have to search systematically for those sources whose data will let you test your hypothesis, by supporting it or, more usefully, by challenging you to improve or abandon it” (68). This final suggestion is less of an improvement than it might at first seem.

just a metaphorical—sense, modern history practiced in this manner *has been and is* a colonial enterprise, for it approaches material remains of the past with intellectual violence and force.⁴¹ Alternatively, a historian might begin an investigation by surveying the landscape as a flâneur, a surveying observer piercing a land- or city-scape with an analytical, critical gaze.⁴² In this approach, the historian might seek to consider on what each of the materials at hand is a good source on its own terms and use a description of materials to arrive at a suitable line of inquiry. Or, historians might pursue their work to cull sources as Benjaminian collectors, performing a certain sort of liberation.⁴³ That work of liberation has been explicitly advocated as, nearly, a revolutionary act in Michel-Rolph Trouillot's call for "historians to position themselves regarding the present" and for our archival work to take on the "silences in world history."⁴⁴

All of these approaches are versions of the inescapable first action of historical practice: the practice of history begins with the act of reconceiving everything in view *as a source on something*. To again draw on Trouillot's work, I contend that the power to *make a source* is the historian's (as a guild and individually), and it is the central moral concern with which historians must contend: "Archival power determines the difference between a historian, amateur or professional, and a charlatan."⁴⁵ Even deeply revisionist historical practices are limited by what is still available to be viewed *as a source*: the archives themselves are "institutions that organize . . . sources and condition the possibility of existence of historical statements"; they have *already* wielded the power to turn materials into *sources*.⁴⁶

41. Priya Satia, *Time's Monster: How History Makes History* (Cambridge, MA: Harvard University Press, 2020). Guiliano succinctly made a similar point: "historical data has always been subject to the systems of knowledge that were used to capture, represent, and disseminate it" (*A Primer for Teaching Digital History*, 22). And according to Fafinski, "when working on the past with digital tools, we must incorporate digital methods, but also consider the political and practical consequences of our choice of digital facsimiles and their relationship with the sources. Only then can we grasp the relevance of digital facsimiles as elements of 'contemporary history'" ("Facsimile Narratives," 103). I join these scholars in being neither proud of nor pleased with either this legacy or (where it continues) this situation. Paths to doing better do exist, but they will not be found by pretending that we already walk them.

42. Gregory Shaya, "The Flâneur, the Babaud, and the Making of a Mass Public in France, circa 1860–1910," *American Historical Review* 109, no. 1 (2004), 41–77. I also find this viewpoint in the arresting introduction to Michel de Certeau's "Walking in the City," in *The Practice of Everyday Life*, transl. Steven Rendall (Berkeley: University of California Press, 2011), 91–110.

43. Walter Benjamin, "Paris, the Capital of the Nineteenth Century" (1935), in *The Arcades Project*, transl. Howard Eiland and Kevin McLaughlin (Cambridge, MA: Belknap Press, 2002), 9: "The collector . . . makes his concern the transfiguration of things. To him falls the Sisyphean task of divesting things of their commodity character by taking possession of them. But he bestows on them only connoisseur value, rather than use value. The collector dreams his way not only into a distant or bygone world but also into a better one—one in which, to be sure, human beings are no better provided with what they need than in the everyday world, but in which things are freed from the drudgery of being useful."

44. Michel-Rolph Trouillot, *Silencing the Past: Power and the Production of History* (Boston: Beacon Press, 1995), 151; the second quote comes from the section titled "Erasure and Trivialization: Silences in World History," 95–107.

45. *Ibid.*, 52.

46. *Ibid.*

Having recognized this, how can we honestly define the rest of our practice? How do we actually move from creating *sources* to constructing *facts* (and analysis, and argument, and narrative)? At the end of the first stage of the inquiry, every historical practice necessitates converting everything discovered into *a source on something* that will contribute to the inquiry. This act to re-author all materials *into sources* (parallel with Drucker's *capta*) facilitates the next step, which is as essential as it is unremarked upon. That next step is to convert all *sources* into commensurate *data*—the *givens* or *premises* of what will be the historical hypothesis, the *historical fact*. I will illustrate the applicability and value of the distinction between *sources* and *data* by turning to an ancient historian, the fourth-century polymath Eusebius of Caesarea. I will use this example to trace out how a concatenation of disparate materials became *sources on time* and were then turned into the neat *data* we know as chronology.

IV. THE DATA WE MAKE: OPENING THE HISTORIAN'S BLACK BOX

Chronology is taken for granted; it is truly *data*—a given in historical work.⁴⁷ At the same time (and though we so rarely remind ourselves of this reality), prior to serving as historical data, chronology is made; it is the *product* of historical work: in and of itself it is created, situated knowledge that must be subjected to critique. Any chronology is both the result—the *facts*—of historical work and a major category of the material (the historical *data*) upon which historical argumentation builds. Thus, the claims of any chronology—who lived for how long and at the same time as whom else—are historical *data* (givens) only *after* they are historical *facts* (claims or arguments). By articulating how Eusebius constructed the historical *facts* of his chronology from his *sources*, and by then examining how his chronology was subsequently used by other historians as historical *data* in their own projects, it will be possible to demonstrate not only the need to more uniformly adopt this terminology of “sources,” “data,” and “facts” but its versatility, applicability, and suitedness to describing the interlocking stages of historical practice.

4a. How Eusebius Made Temporal Data in His Chronicle

The *Chronicle* of Eusebius of Caesarea—a Christian bishop and one of the more prolific fourth-century authors in Greek—is a particularly useful example for the present argument.⁴⁸ First, Eusebius provided an efficient critique of the status quo. The way in which Eusebius used his materials to complete his investigation

47. Sewell's classic *The Logics of History* relies on this principle that time is what historians “know well”: “social temporality,” or “the unfolding of human action *through time*” (an idea commonly referenced in the field with the phrase “Change over Time”). Nonetheless, this is “implicit rather than explicit, to be embodied in specific narrative accounts of particular series of events or particular transformations of communities, states, or fields of discourse” (Sewell, *The Logics of History*, 6; emphasis added). See also *ibid.*, 4–5, 6–11.

48. On the reconstruction of Eusebius's *Chronicle*, see especially Brian Croke, “The Originality of Eusebius' *Chronicle*,” *American Journal of Philology* 103, no. 2 (1982), 195–200. For a comprehensive discussion of earlier scholarship, see Alden A. Mosshammer, *The Chronicle of Eusebius and Greek Chronographic Tradition* (Lewisburg, PA: Bucknell University Press, 1979).

demonstrates how stable the basic historical method has remained over time: historians today work in much the same manner. Given this point, it is all the more striking that if we try to explain Eusebius's work as a historian by using the current standard terminology for the historical method (primary, secondary, and tertiary sources), this terminology not only proves to be unclear but does not explain anything about how Eusebius *as a historian himself* used his materials and how he turned them from *sources* into *facts* and arguments. Second, Eusebius demonstrated his results in forms that contemporary historians still create but (crucially) do not publish: the notes that are the *data* behind our *claims*, our *facts*. That is, Eusebius's *Chronicle* makes plain history's usually obscured method in that the work is a publication of historical *data*.

First, let us look at Eusebius's investigation. What was he trying to find out? According to Eusebius,

I thought it would be appropriate to write down everything in brief, especially the beneficial and important things, and further to put adjacent to [these accounts] the history of the Hebrew patriarchs as revealed in the Bible. And thus we might establish how long before the life-giving revelation [of Christ] Moses and the Hebrew prophets who succeeded him lived and what they, filled with the divine spirit, said before [the time of Christ]. In this fashion it might be possible to recognize easily when the braves of each nation appeared [compared with] when the celebrated Hebrew prophets lived and, one by one, who all their leaders were.⁴⁹

Eusebius, then, stated that his goal was to identify relative antiquity between the most ancient civilizations he knew in order to construct synchronicities between their different historical accounts despite their different contexts and languages. This is Eusebius's *historia*, his investigation.

Given that statement, correct use of standard historical terminology would define Eusebius's *Chronicle* as a direct ("primary") source only *on* that inquiry. Put better, the only event to which Eusebius's *Chronicle* truly gives us a direct witness is his own act of investigation. Eusebius's *Chronicle* is *primarily a source on* Eusebius's own conclusions as to the synchronicities that could be established between the works that he used to determine the commensurability of ancient chronographies. And that is all. Anything else one might ask of Eusebius's *Chronicle*—such as "When did Moses live?" or "What is Berossus's chronology of Babylonian rulers?"—is a question *on which* the work is (at best!) only *secondarily a source* because it is an indirect witness to those actual events or texts.

49. Eusebius, *Chronicle*, transl. Robert Bedrosian, accessed 31 July 2022, <https://rbedrosian.com/euseb1.htm>. Unless otherwise indicated, references to this text come from this edition, which is a translation from the Armenian version of the *Chronography* (the first half of the *Chronicle*). A complete translation is available at: "Eusebius' *Chronicle*: Translated from Classical Armenian," transl. Robert Bedrosian, History Workshop, <https://rbedrosian.com>. Bedrosian's online translation is the current definitive English translation. It is divided into sections and keyed to the Armenian critical edition (the oldest surviving version in any language): *Eusebii Pamphili: Chronicon bipartitum*, ed. and transl. Jean-Baptiste Aucher, 2 vols. (Venice, 1818). For the older German translation, see *Eusebius Werke*, ed. and transl. Josef Karst, vol. 5, *Die Chronik des Eusebius aus dem Armenischen übersetzt* (Leipzig: J. C. Hinrichs, 1911).

That point becomes striking when we look into one of Eusebius's sources, Berossus's account of Babylonian rulers (whom Greek authors called "Chaldeans"). Here is how Eusebius presented Berossus's reckoning:

Here is what Berossus related in Book One, and in Book Two what he wrote about the kings, one by one. . . . This is how he begins. . . . Alorus was the first Chaldean king to rule in Babylon, reigning for 10 *sars*. [*Berossus says that*] a *sar* consists of 3,600 years. . . . This is how the [Chaldean] ancients reckoned [periods of] years. Having stated this, he proceeds to enumerate the kings of the Assyrians, one by one. There were 10 kings from the first king, Alorus, to Xisuthrus. . . . He states that the reign of those kings consisted of a total of 120 *sars*, making a total [in our denomination] of 2043 . . . myriad years [*or 432,000*]. He describes them one by one thusly.⁵⁰

However, Eusebius did not have access to Berossus's text. As Eusebius stated in his heading to this section, he derived this information from Alexander Polyhistor's works on the histories of the Babylonians ("Chaldeans"). Eusebius's *Chronicle* is thus a "tertiary" source on Berossus's text because it is a "secondary" source on Alexander Polyhistor's account of Berossus's text. Here it should again be clear how dearly we need to do away with such terms in order to be able to speak to our students with clarity. *Primacy* or *secondness* does not inhere in any text or object; rather, it is the historian—in the context of their specific inquiry—who exercises *auctoritas* to determine *on what* any item is a source.

This distinction reveals a true difference, as we can see by consulting the surviving version of Alexander Polyhistor's work. Alexander Polyhistor explained that the goal, the *historia*, of Berossus was to demonstrate that, among humankind, there was no civilization—consisting of written language, laws, architectural construction, and agriculture—until a revelation provided humankind with these concepts and abilities:

In the first year a beast named Oannes appeared from the Erythraean Sea in a place adjacent to Babylonia. Its entire body was that of a fish, but a human head had grown beneath the head of the fish and human feet likewise had grown from the fish's tail. It also had a human voice. A picture of it is still preserved today. [Berossus] says that this beast spent the days with the men but ate no food. It gave to the men the knowledge of letters and sciences and crafts of all types. It also taught them how to found cities, establish temples, introduce laws and measure land. It also revealed to them seeds and the gathering of fruits, and in general it gave men everything which is connected with the civilized life.⁵¹

This event was the beginning of the reign of kings and, as such, was denoted as the beginning of time: Year One. Eusebius's account removes this content, thereby removing the entire context of the *data* that Alexander Polyhistor derived from his reading of Berossus's *Babyloniaca*. As far as we can tell from what Alexander Polyhistor did transmit, Berossus himself would seem to have been

50. Eusebius, *Chronicle*, <https://rbedrosian.com/euseb2.htm>. My bracketed clarifying additions are italicized; unitalicized bracketed additions belong to Bedrosian.

51. *The Babyloniaca of Berossus*, ed. and transl. Stanley Mayer Burstein, Sources and Monographs: Sources from the Ancient Near East, vol. 1, fasc. 5 (Malibu: Undena Publication, 1978), 13–14.

principally invested in making the above point about the shared political life of humankind, *not* in transmitting an exact chronology of kings in commensurate solar years.

Eusebius's *Chronicle* is not *primarily a source* on anything other than Eusebius's own *historia*. In practice, of course, not a single one of my colleagues will be either confused by this situation or duped into assuming that Eusebius's *Chronicle* is anything other than what I have just described. However, for our peers in other fields, and for our students, referring to Eusebius's *Chronicle* as a "primary source" is a misleading (at best) statement. The relevance of a *source* to a historical inquiry depends on the inquiry and the exact specificities of that *source*. The terms "primary source" and "secondary source" create a never-ending rabbit hole and induce students to make false claims about the materials with which they are working. We indicate to students that temporal proximity means primacy, when in fact primacy can only refer to our material's relative affinity to the central question of the *historia* at hand.

Instead, what we want to communicate is quite simple, and simply put. Alexander Polyhistor's account of Berossus's *Babyloniaca* is among the materials that Eusebius designated as *sources* in the service of his investigation. Eusebius used that work, along with all of the other material texts he found, as *sources* to create the *data* for his investigation. Eusebius explained:

I shall approach the task before me with writings which have come down from the past. First I shall present a chronology of the Chaldeans, then [I shall present a list of] the kings of the Assyrians, then the Medes, then the Lydians, followed by the Persians. In the next section [I shall present] the entire chronology of the Hebrews in order. [This will be followed by] a third section [describing] the period of the Egyptian dynasties including the Ptolemids who reigned after Alexander of Macedon in Egypt and Alexandria. Next, one by one, I will introduce the beginnings of other [nations], how the Greeks tell their own history. First, [I will tell] about those ruling in Sicyon then in the land of the Argives, then in the city of Athens itself, from first to last, those in Lacadaemon, those in Corinth, and whoever else ruled over any other part of the sea.⁵²

The texts behind each of these lists of kings that Eusebius promised to provide were of course Eusebius's *sources* for his investigation. In taking each of these as *sources* that he could use for his own *historia*—for example, Alexander Polyhistor's account of Berossus's account of the kings of Babylon (and Assyria)—Eusebius was asserting that each of them was commensurate, that each could be subsumed under a single investigation into past time. This is, of course, in spite of the fact that each text had its own manner of reckoning time. As in the above quotation on how Berossus communicated time, Eusebius accepted Alexander Polyhistor's explanation that a *sar* was equivalent to 3,600 solar years. This is explicit textual evidence of how the practice of a historical investigation subsumes and seizes what it identifies as "sources" for the investigation into the *terms* of the investigation: *sars* must become *years*. All of Berossus's indigenous representations are flattened into the terms of Eusebius's inquiry. These sources are all

52. Eusebius, *Chronicle*, <https://rbedrosian.com/euseb1.htm>.

capiant; they are all seized in subservience to the project and, in this way, *become* its *sources*. For the historian's inquiry, *sources* exist to be seized and made to contribute to the fulfillment of the *historia* by being used as the material to create the necessary historical *data*.

Eusebius's *Chronicle* visualizes the process of items being designated as *sources* and then being used to create historical *data*. We have already seen that Eusebius repeated his *source*'s statements about time but then translated Berossus's *sars* into the form of *data* that was commensurate with his investigation: years. This transformation made it possible to give the total of the reigns of the kings of Mesopotamia in antiquity according to Alexander Polyhistor's transmission of Berossus's text in Eusebius's own terms: ten kings reigning for a combined 120 *sars*, with a *sar* being equal to 3,600 years, means 432,000 years. This is a straightforward translation of Eusebius's specified *source*—Alexander Polyhistor's account of Berossus's *Babyloniaca*—into the terms of the *data* that Eusebius wished to produce: years. Eusebius so rigorously pursued an inquiry into the past by selecting *sources* and then creating *data* out of these *sources* that we can supply the terms "sources" and "data" (in the manner just defined) as the missing nouns in Eusebius's own description of his process:

I will convert all the material collected [*sources*] about all these folk into chronological tables. Including, from the beginning, who from each nation ruled as king and for how long, I will put these [*data*] into separate [chronological tables] together with the number of years involved. In this way, if we need to know who ruled and for how long [that *data*] will be easily and quickly accessible. Furthermore, the valiant deeds of each kingdom, which all nations have transmitted, I will place in summary form within [my account] of [these] kingdoms. However, that [*data*] will be in the second part of this work.⁵³

In that second part of the *Chronicle* (a portion that is entitled the *Chronological Canons*), Eusebius presented the synchronized and commensurate *data* he had derived from his *capta* in a visualization that made his *data* accessible to others in a form that might be unsurprising to find in the notes of a twenty-first century historian:⁵⁴

53. *Ibid.* My substitutions and additions are bracketed and italicized.

54. On the long-lasting impact of Eusebius's work on scholarly practices and the presentation of knowledge, see Anthony Grafton and Megan Williams, *Christianity and the Transformation of the Book: Origen, Eusebius, and the Library of Caesarea* (Cambridge, MA: Harvard University Press, 2008), 34–35.

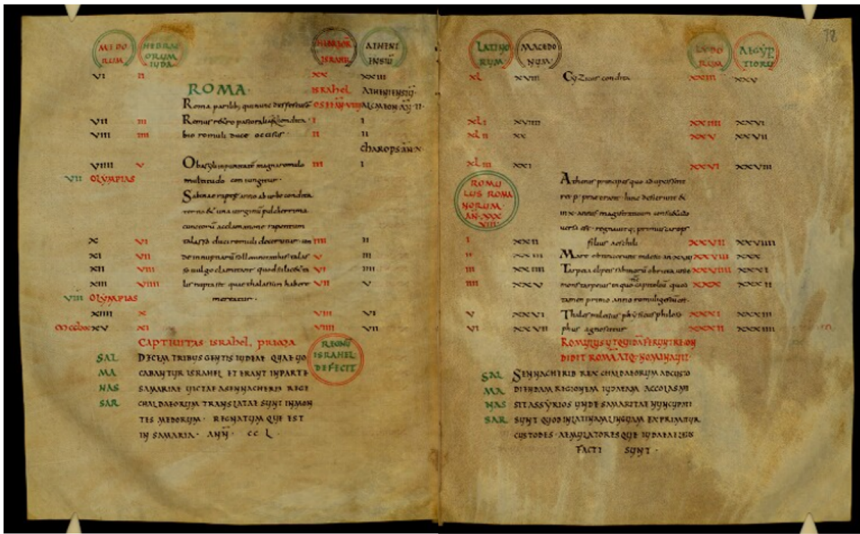


Figure 2. Merton College MS 315, fol. 77v–78r, Merton College, University of Oxford, Digital Bodleian, <https://digital.bodleian.ox.ac.uk/objects/6c2d7998-5b67-42ea-bfbd-8fd4c9bc4445/>. © The Warden and Fellows of Merton College, Oxford.

Permissions for use under Creative Commons License CC-BY-NC 4.0. Without the survival of a medieval copy of the *Chronological Canons* in the original Greek, we have to rely on medieval Latin copies of Jerome’s fourth-century translation for approximations of the original layout. This opening from one of these copies shows the founding of the City of Rome and the entry of the Latins into Eusebius’s chronology in the form of an added vertical column. Each vertical column represents a kingdom, with the larger central column on each page having been reserved for important historical notices; each horizontal row represents a year, a space that can be expanded to accommodate a historical notice that takes more than one line, of which there are several in this example. The columns, from left to right, are the years of the kings of the Medes, Hebrews of Judea, Hebrews of Israel, Athenians, Latins, Macedonians, Lydians, and Egyptians.

Eusebius turned his *sources* into *data* that consisted of commensurate, synchronized annual units, and for his *Chronological Canons*, he presented that data in a visualization that not only made his data accessible to others but also enabled them to see the answer to his investigation, his *historia*. He did this by arranging the annual data in a manner that allowed additional data (in the form of brief historical notices) to be included under any passing solar year.⁵⁵ Readers *see* when some figure lived in Eusebius’s tally of standardized years, alongside

55. Fulfilling his promise, Eusebius declared: “I shall add to this a description of the Olympiads, which the Greeks wrote. Once all these [parts] have been set forth, I shall record, one by one, the first kings of the Macedonians, and the Thessalonians, followed by the those of the Assyrians and Asiatics who ruled after Alexander. Next, each topic in a separate segment, I will describe those descendants of Aeneas who, after the capture of Ilium, ruled over the Latins later called Romans; then the descendants of Romulus who built the city of Rome; then the successors of Julius Caesar and Augustus who became emperors and the consuls who ruled in the intervening years” (*Chronicle*, <https://rbedrosian.com/euseb1.htm>) What we can’t miss in all of this is that ancient chronographers (“historians”) understood the politics of what they were doing. Making time is also a political act. Time is only as universal as the united political power of the entities that accept a single time as their standard. See Denis Feeney, *Caesar’s Calendar: Ancient Time and the Beginnings of History*

whom else, and during which world events. All of this fulfilled the stated *historia* of comparing the relative antiquity of the “Hebrew patriarchs . . . [and] prophets” to that of the rulers of other realms. That the creation of *data* is distinct from the creation of *facts*—conclusions drawn from the historical data—is actually visible (see Figure 2) because Eusebius presented his *facts* graphically so that readers could *see* the *facts* for themselves *in the data*. That is, the manner in which Eusebius amassed and presented his *data* made it possible for readers to have the experience of drawing their own conclusions—constructing the *facts* themselves.

Eusebius began his chronological historical work with a question, proceeded to capture or collect *sources* to answer that question, and subsumed the various forms and contexts of those sources into the single purpose of his *historia* by fitting every source into the single temporal system, synthesis, or synchronization of solar years. From this *data*, it was possible to establish historical conclusions that had not previously been available: *facts* are *faciunt*; they are *facta*—made, created, constructed—*after* the process of turning *sources* into *data*. *Facts* are made from *data*. This terminology fits the historical method of Eusebius’s *Chronicle*, but can it be applied universally? The *Chronicle* is a form of historical writing that is uniquely light on narrative and argumentation and uniquely heavy on *data*. Does my proposed terminology (“sources,” “data,” and “facts”) work as well when considering a more traditional historical composition? To answer this question, I turn to book 18 of Augustine of Hippo’s *City of God against the Pagans*, the portion of his ideological masterwork that can be read as a stand-alone history of the world. In doing so, I will demonstrate that book 18 enables us to see the work we have just been analyzing, Eusebius’s *Chronicle*, transformed by the exact same process that Eusebius himself employed.

4b. Augustine Used Eusebius’s Facts as His Data

Augustine of Hippo wrote his masterwork, *The City of God against the Pagans*, in the wake of the sack of Rome in 410 by Alaric, the leader of the so-called Visigoths.⁵⁶ One of the key *sources* Augustine used was the portion of Eusebius’s *Chronicle* that I have been calling the *Chronological Canons* (or simply *Canons*). Augustine did not access Eusebius’s *Canons* directly. In the late fourth century, Jerome had translated the *Canons* from Greek into Latin and updated it with more recent historical events. This translation is (confusingly) entitled *Chronicle* even though it did not contain the first half of Eusebius’s original work. Augustine therefore utilized Eusebius’s work via Jerome’s translation. Just as Eusebius had taken Alexander Polyhistor’s version of Berossus’s text as a *source*, so Augustine seized Jerome’s version of Eusebius’s text as one of his *sources* for the specific *historia* of book 18 of *The City of God*. In order to do so, Augustine converted what had been the *facts*—the concluding, constructed, created arguments—of Eusebius’s work and used these conclusions as the *data*—the givens—of his own work.

(Berkeley: University of California Press, 2007) and John Henderson, *The Medieval World of Isidore of Seville: Truth from Words* (Cambridge: Cambridge University Press, 2007).

56. For a succinct, lucid narrative account, see A. D. Lee, “Barbarians and Romans,” in *From Rome to Byzantium: AD 363 to 565* (Edinburgh: Edinburgh University Press, 2013), 110–33.

In doing this, Augustine provided us (and our students and peers) with a perfect example of why there is such a disconnect between the popular understanding of what historical *facts* are (“a *fact* is something that is true”⁵⁷) and historians’ understanding that any description of a historical event—Rome was sacked in 410; a group of British colonists signed the “Declaration of Independence” in 1776—is always the product of a historical investigation and never a direct observation. Historical *facts* are nothing more or less than historians’ arguments derived from the process of turning *sources* into *data* and then determining what—*given* that *data*—can be *facere*, or made. When the public and our students discuss “historical facts,” what they are doing is taking our *facts* as their *data*: they are accepting the conclusions of the practice of history (the *facts*) as the givens (the *data*) for a new historical inquiry, or argument. This is exactly the dynamic process that we can see by tracking Augustine’s use of Jerome’s translation of Eusebius’s *Chronological Canons*.

First, some context. Augustine’s work as a whole does not fit the definition of a history; rather, it is an apology or a polemic in response to the aftermath of Rome’s sack. As stated in his preface, Augustine took as his overall premise that the true dwelling place of humankind is “the City of God,” which, “in this passing age, . . . dwells by faith as a pilgrim [or vagrant, *peregrina*] among the ungodly.”⁵⁸ Augustine held that, in the coming age, the City of God would “possess perfectly” the permanence it now lacked and so would rest “in final victory and perfect peace.”⁵⁹ Augustine was determined to persuade his Roman readers that the hallmark of this true and future city was “the virtue of humility [*humilitas*] which . . . raises us above all the earthly pinnacles which sway in this inconstant age.”⁶⁰ Augustine set *superbia* (pride) in opposition to *humilitas*, claiming that this contrast was a truth understood by Christians and pagans alike, as proclaimed by none other than Vergil, who wrote that God would “spare the humble and subdue the proud.”⁶¹ In service of this mission of rhetoric, history, cultural criticism, and political ideology, Augustine spent his first ten books defining the respective ends of the City of God and its foil, the City of Man. In the following four books, he then pursued the origins of the two ideological cities, and in books 15, 16, and 17, he set out to give both cities a history up to the time of the birth of Christ. By book 18, however, Augustine found that, in fact, “my pen has dealt only with the City of God.”⁶² And so book 18 returned to “the time of Abraham” in order to give a proper account of “that other city . . . so that those who read may compare both cities and observe the contrast between them.”⁶³

57. Wikipedia, s.v. “fact,” last modified 2 July 2022, 00:21, <https://en.wikipedia.org/wiki/Fact>.

58. Augustine, *The City of God against the Pagans*, ed. and transl. R. W. Dyson (Cambridge: Cambridge University Press, 1998), 3.

59. *Ibid.*

60. *Ibid.*

61. *Ibid.*

62. *Ibid.*, 821.

63. *Ibid.*

Augustine therefore defined his *historia* for this portion of the overall project as an investigation into the contrast between the two ideological entities of the City of God and “that other city,” the City of Man. Augustine, like Eusebius, seized texts that he believed he could justifiably use for his inquiry even though none of these texts were created in order to give him such information: until Augustine wrote *The City of God*, no text had sought to define and identify (let alone argue on behalf of) such a historical entity. Augustine identified, seized, and repurposed other *sources* for his own *historia*.

The comparison and contrast that Augustine sought to draw between the two ideological cities was derived from the *facts* proposed by Eusebius but set to a different purpose. In setting them a new purpose, Augustine treated Eusebius’s *facts* as his own *data*. For instance, Eusebius had started his *Canons* with Abraham and the Babylonian ruler Ninus. Eusebius did so because the overlapping lifespans of these two figures was the first point where he could identify a secure chronological synchronicity in his sources. It thus constituted the beginning of chronologically verifiable historical time. Augustine, by contrast, seized these *facts*—Eusebius’s conclusions—for his own project and used them as the *data* for his claim that Abraham and Ninus were the historical starting points for the City of God and the City of Man, respectively.⁶⁴

Augustine repeatedly cited (directly and indirectly) Jerome’s translation of Eusebius’s *Chronicle* in book 18.⁶⁵ Section 37 most explicitly demonstrates how he repurposed Eusebius’s constructed *facts* as the *data* for his own historical argument. In that section, Augustine wished to make his broader comparison between the two cities into a more pointed polemic: “As far as the Greeks are concerned, in whose tongue the literature of this world flourished most greatly, they have no reason to boast that their wisdom, even if not superior to our religion, in which is true wisdom, at any rate seems to be more ancient.”⁶⁶ Eusebius’s constructed chronological *facts* were, for Augustine, the *data* that enabled him to make the historical argument that the great Athenian philosopher Socrates appeared in history quite late compared to the progression of Hebrew prophets: “Socrates the Athenian himself, who was the master of all who achieved the greatest eminence at that time, and who held the highest distinction in that branch of philosophy called moral or practical, is found to come after Esdras in [Eusebius’s] *Chronicon* [that is, via Jerome’s translation].”⁶⁷ Not only was Socrates later, but in fact even the earliest known Greek thinkers post-dated the wise prophets and authors of the Hebrews (whom Augustine appropriated as “our own”):

Even these do not come before our prophets, considered generally, in respect of temporal priority. . . . [O]nly the “theological” poets . . . are found to be earlier in date than those Hebrew prophets whose writings we hold to be authoritative. But not even these poets came

64. *Ibid.*, 822.

65. In book 18 of Augustine’s *The City of God against the Pagans*, see sections 7, 8, 27, 31, 36, 37, 38, 40, and 47.

66. Augustine, *The City of God against the Pagans*, 875–76.

67. *Ibid.*, 875.

before Moses in time: our true student of God, who truly proclaimed the one true God, and whose writings are now the first in our authorised canon.⁶⁸

Eusebius's chronological *facts* were taken up among Augustine's *sources*, reconceived of by Augustine as his chronological *data* (his givens), and then, in that context, redeployed to construct new comparative and polemicized historical *facts*.

Incorporating the term "data" into the description of historical practices makes it possible to speak with absolute clarity about the historical method that went into the construction of both Eusebius's *Chronicle* and the historical portions of Augustine's *City of God against the Pagans*. It is also possible to use the exact same terminology to clearly explain the way in which Eusebius's work was used (captured and seized) as a historical *source* for Augustine's project. None of this analysis is possible under the rubric of *primary* (et cetera) *sources*. In addition to analytical clarity, analysis via the (so defined) terms "sources," "data," and "facts" has indirectly demonstrated the way in which time—historically constructed chronology—is both *made* by historians via a historical inquiry and also *used* by historians as a set of givens, as *data*.⁶⁹

Data is anything but new to the historical enterprise. In fact, *data* has been central to historical practice for millennia. The reason that history as a field, subject, and discipline continues to struggle with how to incorporate and identify commensurabilities and shared approaches with the fields of the digital humanities and data science is not because of any *actual* fundamental incompatibilities but because of a lack of coherent terminology for our methods and practices. Historians have been creating, analyzing, and visualizing *data* for eons. We can open up the field of history to incorporate the production of historical data already being done by the wider public, and in doing so, we can bring a wider demographic into the actual practice of history. We can explain to students that a historical inquiry means identifying materials to seize, capture, or use as *sources*, converting those *sources* into *data*, and then arguing from that *data* for *facts*. Doing this will permit us to upend our pedagogies for the better. Instead of conceiving of students as absorbers of *facts*, we can collaborate with students as colleagues and partners in the creation of historical *data*.

68. Ibid.

69. Historians today take for granted (as *given*) at least three things about time that have been established through chronology. First, that it is linear, that it is the sort of thing that can be plotted on, and conceptualized as, a line. The effect of this is to establish a presumption of causality once sequence has been established. Second, that it is universal, or that there is a universal form of it that can be established. The effect of this is to suppress both an actual historical diversity of times and the experiential nature of time. Third, that this linear, universal progression is knowable through written records. That is, by relying on the time of chronology, historians are accepting these premises of linearity, of the possibility of time as a universal, and the validity of written accounts as witnesses to time.

V. CAPTURING THE ROLE OF *DATA* IN THE MAKING OF HISTORY

The connection between historical *sources* and historical *facts* can be explained with coherent terminology if we use the digital history moment to confront the way in which the idea of *primary* (secondary, tertiary) *sources* has confused our students and our colleagues about the actual practice of history.⁷⁰ This is not a new suggestion; it was articulated in different terms by Marc Bloch in *The Historian's Craft*: "Every historical book worthy of the name ought to include a chapter, or if one prefers, a series of paragraphs inserted at turning points in the development, which might almost be entitled: 'How can I know what I am about to say?'"⁷¹ We historians need to speak and write clearly about how we do our work by explaining how we first turn everything into a *source on* something and by explaining that we do so in order to create *data*—the *givens* of our historical investigations—*out of* those *sources*. How did we seize the sources for our project? How did we convert those sources into data for our inquiry? "How can I know what I am about to say?" The creation of historical *data* out of *sources* is a distinct, necessary, and inherently valuable step in the historical method. The future of history is digital, but in order to make that destiny a destination worth inhabiting, we need to finally name the ghost that haunts our method: *data*.⁷²

The inclusion of *data* in our explanation of method also enables us to return to using the term that the general public expects of historians but to which historians have become virulently allergic: "facts." Historians put together our *data* in a manner that enables us to create, to argue for, or to make apparent *facts*, and it is out of historical *data* that we construct our *facts*, our historical hypotheses. By incorporating *data* in its rightful place in our explanation of the historical method, we can use the term "facts" to mean the products of historical investigation, thereby retaining our deep commitment to their *createdness*.

Incorporating the term "data" into discussions of our research—ubiquitously—will not simply be a satisfactory clarification. In this article, I have used readily available and familiar terminology to redefine the historical method. But this should not be understood to mean that this thinking, research, and writing process is unique *to historians*. In truth, a significant part of my argument is that this is a way of thinking that other academics and the public in general frequently engage in and deploy when they think, and inquire, historically. It is therefore also the case that the method I am describing is not sufficient to capture everything that a historian does that is distinct from, say, what a scholar of historical literature does. Rather, my argument is that, by defining the stages in the process of

70. In reference to a specific historical investigation, the designation of "primary" can only be used relatively. Nonetheless, even when acknowledged, this dependency is not foregrounded. See Booth, Colomb, and Williams, *The Craft of Research*, 67–69, and "History: Primary Sources: Definition," GSU Library Research Guides, Georgia State University Library, last modified 15 July 2022, <https://research.library.gsu.edu/primaryhistory>.

71. Marc Bloch, *The Historian's Craft*, transl. Peter Putnam (New York: Vintage Books, 1953), 71.

72. For the importance of applying the metaphor to *digital history*, see Ethan Kleinberg, *Haunting History: For a Deconstructive Approach to the Past* (Stanford: Stanford University Press, 2017), 115–33.

the creation of the kind of knowledge that we identify today as historical, we can practice history in a manner that facilitates greater participation in the collective project, invites more widespread critique and collaboration, and attributes value to historical work that otherwise is given no meaningful recognition.⁷³

We have much to gain from this approach; I believe we may gain no less than a chance to alter the contours of the field, and its current trajectory, for the better. First, as a number of contributions to this theme issue make clear, historians must be able to methodologically distinguish the processes of datafication, digitization, and visualization. By distinguishing the particular kind of data creation or “datafication” that historians do, we will be able to contribute a much-needed perspective to the discourses around data creation.⁷⁴ And by bringing a clear understanding of what exactly it means for historians to determine what something is a *source on*, we have much to contribute to discussions about the nature of digitization projects.⁷⁵ Historians have been happy to critique publications such as the infamous 2020 study of European portraiture that attempted to use machine learning to identify historical changes in “trustworthiness.”⁷⁶ But although these critiques have been engaging, productive, and even entertaining, the entire situation emphasizes the degree to which historians’ field-wide expertise in creating *data* out of *sources* in order to propose *facts* is deeply needed but almost entirely unrecognized as a timely and relevant specialty.⁷⁷

Greater clarity about the place of *data* in all historical work will accelerate the process of familiarizing ourselves with how historical arguments arise from data-driven digital history projects.⁷⁸ *Data* is the language whereby—as actively practiced by Bielefeld University’s SFB 1288 working group—truly collaborative partnerships between computer (and other) scientists and humanists can be

73. According to Ethan Kleinberg, the “meta-language [of theory of history] is not restricted to the discipline of history but opens the discourse to all those interested in the past. The dialogue occurs across disciplines, across practices, and times. Theory of history polyphonic extends beyond disciplinary history, opening the field up to all those who engage with the past. It holds the potential to make audible those actors, events or stories traditionally kept outside the realm of conventional history” (“Reflections on Theory of History Polyphonic,” *Geschichtstheorie am Werk* [blog], 14 September 2021, <https://gtw.hypotheses.org/757>).

74. For more on datafication, see Mejias and Couldry, “Datafication” and Margarita Shilova, “The Concept of Datafication: Definition and Examples,” *Data Science Central*, 2 June 2018, <https://www.datasciencecentral.com/the-concept-of-datafication-definition-amp-examples/>.

75. See Fafinski, “Facsimile Narratives.”

76. Lou Safra, Coralie Chevallier, Julie Grèzes, and Nicolas Baumard, “Tracking Historical Changes in Trustworthiness Using Machine Learning Analyses of Facial Cues in Paintings,” *Nature Communications* 11 (September 2020), <https://www.nature.com/articles/s41467-020-18566-7>.

77. See Mateusz Fafinski, “Historical Data: A Portrait,” *History in Translation* (blog), 29 September 2020, https://mfafinski.github.io/Historical_data/; Yael Rice (@Yael_Rice), “As this brilliant thread makes clear, that evopsych paper tracks ‘trustworthiness displays’ in a database of portraits of WHITE Euro elites, using an algorithm engineered to detect `_contemporary bias_` in the perception of character of WHITE people,” Twitter, 26 September 2020, https://twitter.com/Yael_Rice/status/1309856150796595201?s=20; and Eoin Travers (@TraversEoin), “This paper has been widely slated, and rightly so. However, I want to say a bit about some of the statistical problems here, since they’re issues that aren’t restricted to this paper,” Twitter, 25 September 2020, <https://twitter.com/TraversEoin/status/1309549394178519040>.

78. Models of Argument-Driven Digital History (website), Roy Rosenzweig Center for History and New Media, George Mason University, accessed 4 August 2022, <https://model-articles.rchnm.org>.

formulated.⁷⁹ Normalizing this reality will make it more possible to realize the stated aspirations of the “Digital History and Argument” white paper, including recognizing the “arguments in . . . digital collections, datasets, and digital public history” and making clear that *data* itself is “a bridge for digital historians to directly contribute to . . . historiographical conversations.”⁸⁰

Finally, this bridge must be built not merely to bring more of our colleagues and peers into previously exclusive discourses but to open up the practice of history to more students in more classrooms by normalizing the creation of historical *data* as not merely an exercise, and not only as one part of a method, but as a fully valued and intended end in and of itself—as labor that is actual, publishable history.⁸¹ The identification of data creation in standard historical practice and thinking can be one of the means to accomplish these ends. But we must take positive steps: we are long past the quixotic idea that any *digital turn* will, of itself, diversify or even liberate.⁸² In *Misogynoir Transformed: Black Women’s Digital Resistance*, Moya Bailey narrated how Antoinette Luna Myers created, curated, and then ultimately erased the Ancestry in Progress project, a Tumblr gallery (with over eight thousand followers) whose “curatorial mission was to document those Black women who are never in the spotlight or on the national stage.”⁸³ This was a publication of historical *data* that was no less a practice of history than Eusebius’s construction of chronology. It is now gone. I have already drawn attention to Trouillot’s call to give voice to the silences in the archives, to pursue narratives with the power to transform and liberate.⁸⁴ Recognizing that such publications as Ancestry in Progress are historical *data* and acknowledging that the collection, curation, and publicization of that data is a historical practice and a historical publication in its own right can not only valorize and validate such precious, potentially transformative data; it can transform what future historians take as their *givens*.⁸⁵ As Guiliano’s *Primer for Teaching Digital History* makes

79. *Digital Methods in the Humanities: Challenges, Ideas, Perspectives*, ed. Silke Schwandt (Bielefeld: Bielefeld University Press, 2020), <https://www.degruyter.com/document/doi/10.1515/9783839454190/html?lang=en>.

80. Arguing with Digital History working group, “Digital History and Argument,” Roy Rosenzweig Center for History and New Media, published 13 November 2017, 2, <https://rchnm.org/portfolio-item/digital-history-argument-white-paper>.

81. See the resources in the “Teaching with Digital History” section of *Perspectives on History*’s website, <https://www.historians.org/publications-and-directories/perspectives-on-history/teaching-with-digital-history>. For an example from my own experience, see J. W. Torgerson, “Teaching Constantinople as a (Pixelated) Palimpsest,” in Morreale and Gilsdorf, *Digital Medieval Studies*, 77–98.

82. Roopika Risam, “Beyond the Margins: Intersectionality and the Digital Humanities,” *Digital Humanities Quarterly* 9, no. 2 (2015), para. 4, <https://www.digitalhumanities.org/dhq/vol/9/2/000208/000208.html>: “Those of us who work with issues of difference often perceive the ways that many digital humanities projects fail to engage with race, gender, disability, class, sexuality, or a combination thereof.”

83. Moya Bailey, *Misogynoir Transformed: Black Women’s Digital Resistance* (New York: New York University Press, 2021), 163.

84. Trouillot, *Silencing the Past*, 97–105.

85. On the importance of standardized documentation practices for projects such as these, see Laura K. Morreale, “History as Antidote: The Argument for Documentation in Digital History,” *History and Theory* 61, no. 4 (2022).

clear, if all we make of this moment is to translate “analog history” into “digital media,” we simply amplify the perennial sins of our discipline, including, but not limited to, “selection, bias, issues of institutional support, access to resources and materials, problems of racial hierarchies, the embrace of capitalism, and the consequences of colonialism.”⁸⁶ We can make this *digital history* moment matter, but *we* have to *make* it matter by making changes.⁸⁷ Identifying the role of *data* in history is an opportunity. It is an opportunity to valorize historical *data* professionally—and publicly. It is an opportunity to subject *data* and *the digital* to the legitimating discourses of analysis and critique.⁸⁸ It is an opportunity to attribute public and professional value to the creation of historical *data* in contexts ranging from the high school assignment, to the online social media archive, to the CV line in the tenure dossier.⁸⁹ It is an opportunity to recognize that digital histories have arguments,⁹⁰ that *data* and digital projects *are* reviewable historical publications in their own right,⁹¹ and that they must *all* be cataloged, indexed, and cited normatively because they are works of history.⁹² This much, I hope, can now be taken as given.

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86. Guiliano, *A Primer for Teaching Digital History*, 5.

87. Thus, according to João Ohara, “for all the potential benefits that larger canvases and time-frames could bring to our relations with and knowledge of the past(s), only theory can bring forth a polyphonic historical understanding” (“Towards a Broad and Inclusive Theory and Philosophy of History,” *Geschichtstheorie am Werk* [blog], 23 September 2021, <https://gtw.hypotheses.org/1241>).

88. Guiliano, *A Primer for Teaching Digital History*, 6–9.

89. Arguing with Digital History working group, “Digital History and Argument,” 27–28.

90. See the Models of Argument-Driven Digital History website, <https://model-articles.rchnm.org>.

91. See the website for the journal *Reviews in Digital Humanities*, <https://reviewsindh.pubpub.org>.

92. See Morreale, “History as Antidote.”