It's Just Different: Identifying Features of Disciplinary Literacy Unique to World History

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IN RECENT YEARS, disciplinary literacy has offered a promising approach to history instruction in K-12 schools.<sup>1</sup> Proponents of disciplinary literacy argue that to truly understand a discipline, students must engage in the specialized inquiry and literacy practices used by disciplinary experts.<sup>2</sup> These specialized practices include working with discipline-specific texts, synthesizing ideas across such texts, questioning and challenging claims, and communicating new ideas through modes valued within the discipline.<sup>3</sup> Disciplinary literacy in history (hereafter, "historical literacy") entails approaching texts with an awareness of the interpretive nature of the field, reading and analyzing a variety of primary and secondary sources in disciplinespecific ways, and constructing arguments and narratives using the linguistic and visual modes of communication valued within the discipline.<sup>4</sup> Historical literacy practices are an integral component of the National Council for Social Studies' College, Career, and Civic Life (C3) Framework for Social Studies State Standards,<sup>5</sup> and researchers who have studied the use of such practices in secondary classrooms report significant improvements in students' historical knowledge and reasoning skills.<sup>6</sup> By engaging in such disciplinary literacy practices, students can gain an understanding of how knowledge is constructed and communicated within the discipline, which, in turn, can help them become active and critical participants in the discourses that shape our understanding of the world.<sup>7</sup>

However, despite the important scholarship on historical literacy teaching and learning that has emerged in recent years, few studies focus on historical literacy specific to the subject of world history.8 Indeed, we have yet to fully articulate what world historical literacy is.9 This is unfortunate, given that world history poses unique challenges for both learners and teachers. 10 To be sure, as teacher educators and veteran world history teachers at both the secondary and college levels, our own ruminations have most frequently centered on struggling to conceptualize and teach a globalized world history course. We have found that helpful books on teaching world history do not fully account for the unique nature of historical literacy in world history. 11 Even the AP World History: Course and Exam Description outlines general historical literacy practices such as analyzing primary and secondary sources, but not specific world historical literacy practices. 12 While general historical literacy practices as defined in the literature are clearly important in world history, they fail to fully capture some of the intricacies and complexities of reading, writing, and understanding world history.

Therefore, the aim of this article is to define disciplinary literacy in world history, or world historical literacy, identifying how it is similar to and different from historical literacy practices in national or regional histories. One challenge of delineating world historical literacy has derived from the fact that world historians continue to debate a number of temporal, spatial, and thematic frameworks for world history. However, continuing developments within the field of world history do not negate the fact that students and teachers experience world history as a stand-alone subject in secondary classrooms throughout the United States. Thus, world history educators must take on the task of defining what it is to understand and become literate in world history.

# What is Historical Literacy?

Although the term "historical literacy" has been used by history educators for at least three decades, it is only within the last fifteen

years or so that it has become associated with competencies in the reading and writing of historical texts.<sup>15</sup> Within these years, multiple scholars have identified, explicated, and studied specific features of historical literacy, which can be applied across all types of historical study, whether national, regional, or global. <sup>16</sup> People who are historically literate are able to comprehend, analyze, and interpret a wide variety of historical texts as part of historical inquiry. Such texts include primary, secondary, and tertiary sources, which may be in some combination of a verbal, graphic, or visual format, and presented through a variety of media—in print, digital, video, oral, audio, or as 3-D artifacts.<sup>17</sup> Historically literate individuals engage in a close textual reading, carefully considering the meaning of words, passages, images, and other data, connecting the texts to their background knowledge and historical theories, and drawing inferences. They check for internal consistencies in texts, compare them with other texts, and look for discrepancies in information.<sup>18</sup> Ultimately, historically literate individuals consider how their evidence illuminates larger patterns of change and continuity, and what the significance of those patterns of change and continuity are. They then communicate their conclusions as argument or narrative, either in writing, as exhibit, or, increasingly, in digital format.<sup>19</sup>

When constructing their own accounts of the past, historically literate individuals gather information from a variety of primary source texts to attain as complete a picture of the past as possible. They consult multiple pieces of evidence, sourcing the texts by identifying the creator, considering his or her biases and motivations, and noting when and where the text was produced. They contextualize texts as well, thinking beyond the immediate context of the source itself and considering what other events were occurring at the time, and events that preceded and followed the event represented by the text.<sup>20</sup> The use of texts from the past, as well as interpretations of the past by others, guides the historically literate individual as they select texts, all the while recognizing the critical and evaluative stance with which other historically literate individuals will judge their work.

The epistemological stance with which historically literate individuals approach other historical accounts, or secondary sources, reflects their understanding of how such texts are produced. They understand that history is not simply a reporting of "what happened,"

or the whole of the past, but an enterprise in constructing accounts using incomplete vestiges of the past. Historically literate individuals understand well the role of historical imagination and perspective in constructing these accounts, as historians must make judgments about significance, patterns of change and continuity, and a multitude of proximal and distal causes and consequences. Knowing what they know about the discipline of history, historically literate individuals do not simply read a text with an eye toward decoding and comprehending it. Rather, they understand that any text about the past is an interpretation, influenced by the sociocultural context in which it was produced, the author's motivations and biases, the amount of evidence available at the time that it was produced, and the amount of evidence available to the person producing it.<sup>21</sup>

Though world historical literacy shares these historical literacy practices with other fields of history, the nature of the field also presents unique challenges. For one, the scope of world history is unlike any historical field. While differences remain among scholars of world history, all generally attempt to transcend traditional national, civilizational, or even regional borders. The broad scope of the field has led to disagreements among world historians about the best approach to the study of the global past.<sup>22</sup> Such disagreements among world historians have been a healthy and necessary aspect of the field, but they do little to address the pressing needs of world history teachers in secondary schools, who nonetheless face the daunting task of planning and teaching students in one of the fastest growing curricular areas of recent decades.<sup>23</sup>

In what follows, we clarify what we mean by "world history," given that there is wide variation in courses and curricula. We then draw from existing literature on world history scholarship and teaching to highlight literacy practices central to the field.

#### **Defining World History**

One challenge of describing world historical literacy is that world historians continue to debate a number of different temporal, spatial, and thematic frameworks as the field continues to evolve.<sup>24</sup> Such disagreement is reflected in the wide variety of curriculum models in the United States, all labeled "world history." Scholars have identified at least four patterns in the structure, content, and

approaches given to world history curricula. One pattern focuses on "Western heritage" as the core content, though it may tangentially discuss other areas of the world. Another pattern uses social studies themes with broad and grand generalizations about the past, with world history content offering examples of themes about time, continuity, and change. A third pattern has been variously called a "different cultures" or "different regions" model. This pattern studies regions and cultures in various parts of the world, often in isolation from one another. The fourth pattern focuses on change across time and around the globe. It requires students to move between regions over time to understand developments in the past in a more complex, global context. No one region or civilization is seen as normative.<sup>25</sup>

The fourth pattern, a global study of the world's past, best exemplifies the approach we employ when discussing world historical literacy. As Ross Dunn points out, this approach "advances the idea that social and spatial fields of historical inquiry should be open and fluid."26 It focuses on world historical changes and the causes of these changes. The National Standards for World History articulated this approach, and many states subsequently appropriated it for their world history curriculum standards.<sup>27</sup> The website World History for Us All provides a model for this kind of curriculum. as does the AP World History Course Framework.<sup>28</sup> According to the AP Framework, students should learn "to analyze and interpret historical facts and evidence to achieve understanding of major developments in world history."29 The learning objectives of the course are grouped under themes like "interaction," "development," "building," "expansion," "conflict," "creation," and "transformation." These themes, the framework states, "connect the historical content [students] study to broad trends and processes that have emerged over centuries."30 As the framework makes clear, the focus is on historical phenomena as they have developed over time and space.

Our interpretation of world historical literacy is grounded in this conception of world history. We see world history as encompassing historical processes and problems on a global scale. Examining the past on this global scale requires broad interpretations across time and space, which regional or national histories do not regularly require. Inquiry into the past where temporal and special boundaries are open and fluid requires habits of mind and literacy skills that are distinctive enough to merit special attention. As we will argue,

world historically literate people must (1) navigate competing world historical narrative frameworks, (2) recognize and appropriate multiple periodization schemes, (3) shift and connect multiple levels of space and time, (4) possess fluency with complex concepts that connect global events, (5) reimagine spatial constructs and regularly employ maps to visualize and analyze complex global processes and changes, (6) use a variety of data visualizations like tables, charts, and maps to compress and analyze broad, otherwise invisible patterns, and (7) exercise a high degree of cross-cultural historical empathy in order to understand multiple worldviews throughout time. We describe each of the features below.

### What Do World Historically Literate People Do?

Navigate Competing World Historical Narrative Frameworks

Narrative is central to the work of all historians. As John Lewis Gaddis argues, one of the historian's primary concerns is portraying "movement through time" and making meaningful narrative connections between events happening across space, at the same time, and over time.<sup>31</sup> For world historians, constructing a coherent, meaningful narrative that connects events and processes across multiple temporal and spatial frames is particularly challenging.<sup>32</sup> Indeed, as Dunn argues, part of what has defined the world historical enterprise over the past few decades has been "how to lay the conceptual ground for writing and teaching about historical developments whose dimensions fit badly into the classificatory schemes of nation-state or civilization."33 Efforts to answer questions about the proper "spatial and chronological architecture" for world history have preoccupied scholars in their attempts to "make the subject intelligible to students." Contrary to widespread beliefs about world history, historians who study and write about the global past do not attempt to weave a narrative about "everything." Nor do they try to establish a final, stable grand narrative that is fixed and unchanging.<sup>36</sup> In fact, world history generally problematizes grand narratives. Historians are fully aware that historical narratives are always open to challenges, additions, and modifications, but they nonetheless try to "explicate the human past in all its variety and confusion."37

The stories of the human past that emerge from these efforts to explicate it inevitably take shape as a story about "something" that is, some pattern, direction, or theme with power to explain the human record around the globe and across time. Just what this pattern, direction, or theme is can differ among world historians, and has been the source of some disagreement within the field. For example, Patrick Manning argues that world history is "the story of connections within the global human community" and that world historians "portray the crossing of boundaries and the linking of systems in the humans past."38 Jerry Bentley emphasizes that world history is a story of cross-cultural interactions, including technological, cultural, military, and biological.<sup>39</sup> Other scholars focus on the formation of increasingly elaborate economic systems throughout human history, while still others argue that world history is a story of the process of globalization.<sup>40</sup> Some world historians, several of whom have become associated with "Big History," argue that the human past cannot be separated from the physical and biological world in which it has unfolded, and in fact demonstrates similar patterns of increasing complexity.<sup>41</sup>

World historical literacy does not require taking up one of these approaches to framing the world's past, but it does require an understanding of the different approaches and their implications. The world historically literate person knows not only that various frameworks for world history exist, but also how these frameworks can shape the world history texts they read or construct. In particular, identifying the framework for a world historical narrative can help uncover which changes over time will be emphasized in a historical account, whether they are changes in systems of interconnections, in economic and technology systems, or in levels of societal complexity. Furthermore, the narrative framework will provide insight into why particular events or processes are deemed significant in the story of the global past.

There is some research to suggest that narrative frameworks may be difficult for students to grasp in all surveys of history, whether national, regional, or global. Lendol Calder argues, for example, that emphasis on testing in schools has elevated the importance of memorization in history and made students increasingly "narratively challenged"—more apt to see history as a compilation of disconnected facts instead of abounding with stories that connect past, present, and

future.<sup>42</sup> Yet, world history narratives may be even more difficult to construct, particularly if even teachers of world history struggle to formulate coherent narratives out of all the "stuff" they are charged with imparting to their students. Indeed, Robert Bain and Lauren McArthur Harris note that the history teachers with whom they work can fairly easily create a "five-minute history" of the United States, but struggle to do the same for world history. Teachers' U.S. history narratives typically begin with Native American peoples prior to European arrival, and march through the Colonial Period, the Revolutionary Period, and so on, indicating a shared narrative that is commonly used to organize U.S. history textbooks, trade books, and curricular resources.<sup>43</sup> However, the teachers generally lack a clear framework for the world history story they wish to tell, let alone an understanding that there are different frameworks from which to choose.<sup>44</sup> Without a clear narrative framework, it is likely that teachers will struggle to help their students develop or recognize them.<sup>45</sup> This is unfortunate, given that knowledge of potential frameworks for world history can provide people with the tools they need to give shape to events and processes in the world's past, and to see the ways that others may do it differently.

#### Recognize and Appropriate Periodization Schemes

Understanding that there are competing narrative frameworks in world history can provide insight into another aspect of world historical literacy: recognizing and appropriating various periodization schemes.<sup>46</sup> There are a wide variety of periodization schemes that can be used in world history, each reflecting the narrative framework employed by the world historian. Though all historians compartmentalize the past into different periods, eras, or epochs based on patterns of change or trends that they have identified as significant in the past, the process seems especially elusive in a historical enterprise that attempts to transcend national and regional boundaries, as well as the cultural features that shape them. World historians employ a wide variety of interpretive frameworks in trying to capture patterns of continuity and change over vast expanses of time and space as they deploy various periodization schemes. They privilege particular thematic lenses through which to judge global historical significance, or they emphasize changes and patterns in

World History Periodization Schemes in Traditions & Encounters	
"Part I: The Early Complex Societies"	3500-500 B.C.E.
"Part II: The Formation of Classical Societies"	500 B.C.E500 C.E.
"Part III: The Postclassical Era"	500-1000 C.E.
"Part IV: An Age of Cross-Cultural Interaction"	1000-1500 C.E.
"Part V: The Origins of Global Interdependence"	1500-1800
"Part VI: An Age of Revolution, Industry, and Empire"	1750-1914
"Part VII: Contemporary Global Realignments"	1914-Present

**Figure 1**: World History Periodization Schemes in Jerry H. Bentley and Herbert F. Ziegler, *Traditions & Encounters: A Global Perspective on the Past*, fourth ed (Boston, MA: McGraw-Hill, 2008).

World History Periodization Schemes in Prentice Hall World History		
"Unit 1: Early Civilizations"	Prehistory-A.D. 1570	
"Unit 2: Regional Civilizations"	730 B.CA.D. 1650	
"Unit 3: Early Modern Times"	1300-1800	
"Unit 4: Enlightenment and Revolution"	1700-1850	
"Unit 5: Industrialism and a New Global Age"	1800-1914	
"Unit 6: World Wars and Revolutions"	1910-1955	
"Unit 7: The World Since 1945"	1945-Present	

**Figure 2**: World History Periodization Schemes in Elisabeth Gaynor Ellis and Anthony Esler, *Prentice Hall World History* (Upper Saddle River, NJ: Pearson/Prentice Hall, 2011).

one part of the world over another as they determine how to set the periods of the past.<sup>47</sup> Periodization schemes for world history are thus vigorously debated among world historians, resulting in disparities across textbooks, trade books, curricular resources, and content standards.<sup>48</sup> For example, **Figure 1**, **Figure 2**, and **Figure 3** illustrate differences in periodization schemes across three high school world history textbooks, and these periodization schemes will likely differ from curriculum standards and online or print curricular resources.

World History Periodization Schemes in Worlds Together, Worlds Apart		
"Becoming Human"; "Rivers, Cities, and First States"	3500-2000 B.C.E.	
"Nomads, Territorial States, and Microsocieties"	2000-1200 B.C.E.	
"First Empires and Common Cultures in Afro-Eurasia"	1250-325 B.C.E.	
"Worlds Turned Inside Out"	1000-350 B.C.E.	
"Shrinking the Afro-Eurasian World"	350-100 B.C.E.	
"Han Dynasty China and Imperial Rome"	300 B.C.E300 C.E.	
"The Rise of Universal Religions"	300-600 C.E.	
"New Empires and Common Cultures"	600-1000 C.E.	
"Becoming 'The World'"	1000-1300 C.E.	
"Crisis and Recovery in Afro-Eurasia"	1300-1500	
"Contact, Commerce and Colonization"	1450-1600	
"Worlds Entangled"	1600-1750	
"Cultures of Splendor and Power"	1500-1780	
"Reordering the World"	1750-1850	
"Alternative Visions of the Nineteenth Century"; "Nations and Empires"	1850-1914	
"An Unsettled World"	1890-1914	
"On Masses and Visions of the Modern"	1910-1939	
"The Three-World Order"	1940-1975	
"Globalization"	1970-2000	
"Epilogue"	2001-Present	

**Figure 3**: World History Periodization Schemes in Elizabeth Pollard, Clifford Rosenberg, and Robert Tignor, *Worlds Together, Worlds Apart: From the Beginnings of Humankind to the Present*, Concise High School ed. (New York: W. W. Norton & Co., 2015).

Such disparities can be confusing for students, who may struggle to understand chronology and periodization in the first place.<sup>49</sup>

People who are world historically literate understand why different periodization schemes exist across world historical texts, can identify the changes upon which the scheme is focused, and are adept at working across different schemes.<sup>50</sup> They recognize

different periodization schemes as a reflection of competing narrative frameworks, each of which will emphasize certain historical changes over others, and use a different filter for determining significance on a world historical scale. For the historian who emphasizes crosscultural contacts, for example, times of more intense interaction will be important periods of historical change, and shifts in interactions across the globe will separate one period from the next. In a world economic systems narrative, periodization will reflect times when economic systems undergo major shifts in composition or locality, or when they expand or collapse. Being world historically literate means being able to connect the periodization scheme to the narrative framework, and identify what changed and what stayed the same across the pockets of time that are used to organize the historical narrative. Such understanding then allows the historically literate person to appropriate different periodization schemes as they weave their own arguments and explanations out of texts that do not fit neatly into one temporal formula.

## Shift and Connect Temporal and Spatial Scales

Although world historical narratives are typically shaped by an overarching periodization scheme, part of the work of world history involves zooming in to look at smaller frames of historical time and illuminate larger patterns or processes. Such shifting of scales must also occur in space. Patterns and processes that have happened on a global spatial scale only become clear when you examine changes at a regional, national, or local scale, while events within smaller spatial frames may make more sense when viewed within the context of global processes.

Skillfully navigating and connecting multiple levels of time and space in world history is a hallmark of world historical literacy.<sup>51</sup> As Bain argues, world history requires one to be both "parachutist" and "truffle-hunter" who can view the past at different levels, using "big' pictures or frameworks to situate and connect a wide range of macroand microhistorical details, details located across multiple temporal and spatial scales."<sup>52</sup> Though the world is ultimately the stage upon which world historians are trying to view the past, topics that are relevant to world historical research can be as small as a village in Africa, a commodity like salt, a single year in the seventeenth century,

or the travels of a Muslim trader.<sup>53</sup> Douglas Northrop points out that such topics might be "of either negligible or enormous relevance" to a national or regional history, but argues that is not the "metric by which [world historians] judge" them.<sup>54</sup> It is the ability to make connections between these micro-histories and more widespread or longer-term processes that is paramount in world history, and ultimately indicative of world historical literacy. Since world history encompasses such a large scale, moving from local to global in world history means traversing more distance than a regional or national history requires.

Furthermore, world historically literate individuals are aware of what can and cannot be known at different temporal and spatial scales, and which questions can best be answered at those scales. Recognizing that no one scale provides a complete picture or full understanding of the past, they will shift from scale to scale to answer historical questions. Even when their primary concern is addressing questions about a nation or civilization, a world historically literate individual should be able to "nest" a national or regional history within the world's history, making connections between significant episodes in the nation's or region's past and those occurring on a global scale. In his book on the United States' place in world history, for example, Thomas Bender argues that using a nested approach is both a way to help people better understand the nation's history, and a necessity in "this age of talk about globalization, multiculturalism, and diasporas."55 He states, "The nation is not freestanding and selfcontained; like other forms of human solidarity, it is connected with and partially shaped by what is beyond it."56 Scholars in the field of big history, which looks at the history of the universe, have made a similar argument. Fred Spier suggests, for example, that human history can be better understood within the context of big history because it shows "how humans and human societies have become the way they are; how they have been influenced by their planetary and cosmic environment, as well as how they have changed it; and more in general, how both living and lifeless nature have become the way they are now."57

Working across different scales also affects how world historically literate people think about human agency in history, particularly the way that human agents are influenced by the social and environmental structures in which they operate. Fernand Braudel's work, for example, emphasizes the importance of the *longue durée* in history—

the long-term, slow, nearly undetectable structural changes that have occurred throughout time, which he describes as the "deep currents of history...on which our frail barks are tossed." Similarly, Thomas Holt asserts that linking different levels of analysis in history—that is, explicating "more precisely the relation between individual agency and structural frameworks"—allows us to understand "how the large and 'important' are articulated with and expressed through the small and 'unimportant,' and vice versa." World historically literate people regularly address the "levels problem" described by Holt in the process of historical inquiry, recognizing humans as actors on a local, national, or regional scale, but occupying a small space on a much larger spatial and temporal stage.

Although several scholars have argued that making connections across different scales is important not only for world history, but also for historical understanding in general, making connections across time and space does not necessarily come easily to world history novices. For example, in their study of world history instruction in a high school classroom, Brian Girard and Lauren McArthur Harris found that students find it difficult to connect events at regional or interregional levels to larger global patterns without continuous support and practice. Without such an ability to shift and connect events and processes across temporal and spatial scales, it might be difficult to fully grasp the global historical narrative.

### Possess Fluency with World Historical Concepts

One way that world historians connect events at different scales of time and space is through the use of concepts. While it is true that the use of substantive concepts (e.g., government, trade, migration) is central to understanding and reasoning in all of history, world historians rely upon them as tools to make connections across the various scales of time and space. To be sure, making sense of a global past requires a high level of abstraction; those who are world historically literate must categorize seemingly disparate events, which nonetheless share common patterns and attributes, into organizing ideas like nationalism, revolution, and genocide. Such concepts are essential in making broad cross-temporal or cross-regional comparisons, a central task of world historical inquiry. Recognizing events or processes as a "case of" a concept, the world

historically literate person can analyze similarities and differences between and among the cases, taking into account different contexts and nuances of the cases under comparison.<sup>66</sup>

However, the potential connections across vast scales of time and space that make substantive concepts particularly useful in world history are also what make them challenging, complex, and potentially misleading.<sup>67</sup> The large scope of the field requires that one must account for more variables over time and space than is necessary in regional or national histories.<sup>68</sup> For example, an otherwise historically literate person may recognize cases of nationalism across European states in the early twentieth century, but zooming out from that bounded time and space reveals that the concept of nationalism has changed from its earlier ideations in the eighteenth century to today, and has been manifest in different ways in non-European parts of the globe. Likewise, a person studying the concept of democracy in Ancient Greece need not account for the way the concept evolved over time and space, or how the word has been applied to describe political systems with very different structures and functions in the way that one does in world history. Finally, phenomena that are conceptually the same can go by very different names in practice across world historical time and space. Despots, for example, have been called emperors, kings, chancellors, generals, or some other variation of "leader" throughout world history. Without examination of shared attributes and conceptual underpinnings, such variation in names might lead novices to assume many more differences than similarities in the political structures and hierarchies that have existed across societies.

World historical concepts can also be challenging because of the prevalence of so-called colligatory concepts, which bring together a series of temporally extended, causally related events into a single event in a way to help make sense of the past. Examples of such colligatory concepts abound in world history. The Agriculture Revolution, Industrial Revolution, the Age of Empires, the Columbian Exchange, or the Renaissance are all concepts world historians use to make sense of the past, and all of them package into just a few words processes that spanned large amounts of time and space. The world historically literate person must know and use such complex concepts in analyzing cause and consequence and change over time, and in interpreting, analyzing, and constructing world historical narratives

and arguments. Furthermore, the world historically literate individual must be able to use and recognize specialized concepts that have been coined by world historians to describe large-scale processes, patterns, or structural entities. These include terms like "divergence," "convergence," "southernization," "universal religions," "networks of exchange," "world systems," and more. For a novice dealing with conceptual density in a world history text, the high demand on cognitive resources and a relative lack of background knowledge will likely prove a challenge to understanding.<sup>70</sup>

#### (Re)Imagine, Visualize, and Analyze Space

All historians manipulate time and space, but a large part of what distinguishes world history from other fields of history is the movement away from traditional boundaries in space, such as those of the nation-state, civilizations, continents, or even hemispheres.<sup>71</sup> To illuminate patterns that transcend traditional borders, world historians conceive of space in a multitude of ways, including regionally, inter-regionally, globally, and by world systems.<sup>72</sup> In addition, scholars of world history focus on mobile objects, tracing the movement of humans, processes, or commodities across space and studying the implications of such movement for developments in societies within their trajectory.<sup>73</sup> World historically literate people understand and are comfortable working with and across multiple units of space. They see the landmasses on a map or globe not just as the seven continents students learn in elementary school, but as continuous avenues of trade and human interactions. As a result, world historically literate individuals use spatial terminology like Afro-Eurasia, Inner Eurasia, and Indo-Mediterranea, and physical boundaries like mountain ranges or oceans are as meaningful as—or perhaps even more meaningful than—political boundaries.<sup>74</sup> Indeed, world historians see waterways as surfaces of human activity that have been as busy and rich with significant stories as the land. World historically literate people view the Earth as one continuous surface of movements, migrations, conflicts, and exchanges.

The fact that the entire globe serves as a staging ground for world history, coupled with the ways that world historians manipulate space, make maps—and a variety of maps to be sure—fundamental texts for telling and reading the stories of world history. Maps are

visual representations of space that, as Clara Webb argues, "can be powerful visual tools that provoke us to think about the how and why of history." Maps allow world historians to discover and visualize relationships hidden in written text and graphs, and conceive of space, place, and time in concert, at both small and large scales. Maps make the invisible visible—revealing ways that people moved over long stretches of time, or how diseases or languages spread. Maps can show both the world and parts of the world at the same time, and, thus, have made the shifting of scales a possibility for world historians.

The usefulness of maps as physical tools of world history has given them a prominent role in central works of world history. For example, in their book, *The Human Web: A Bird's-Eye-View of World History*, world historians J. R. McNeill and William H. McNeill use over a dozen maps in an otherwise visual-free text to show historical phenomena such as how agriculture was invented in separate parts of the world, or how Muslim empires expanded from the seventh to the tenth century C.E.<sup>78</sup> Maps have dominated the visuals in other defining works of world history as well, including Philip Curtin's *Cross-Cultural Trade in World History* and Janet Abu-Lughod's *Before European Hegemony: The World System A.D.* 1250-1350.<sup>79</sup>

Curricular resources provide additional illustrations of maps' importance in world history, and underscore the degree to which the world historically literate must be practiced in analyzing and interpreting them. For example, out of seventy-five units of instruction on the curriculum website World History for Us All—all designed by scholars and instructors of world history—fifty units contain at least one map. Across all units, there are a total of 211 maps. Maps also have a prominent role in the textbooks students might use to learn world history. In a recent study of data visualizations in social studies textbooks, Tamara L. Shreiner found that, although maps are important in all social studies texts, they are more frequent in world history texts than in any other social studies texts. For example, maps accounted for approximately 72% of all visualizations in middle school world history textbooks and 59% in high school world history textbooks. This was compared with U.S. history textbooks, where maps accounted for 58% of all visualizations in middle school and 49% in high school. Moreover, maps in world history texts included a wide variety of map types, including choropleth, connection, and flow maps, and used a wide variety of scales, from large-scale maps of states or regions to small-scale maps of the entire globe. Perhaps more striking is the degree to which world history texts used maps combining spatial and temporal elements—that is, maps layered with data indicating change, growth, or movement over time. These are the most frequent kind of visualizations students encounter in a world history textbook, and accounted for 42% of all visualizations in high school world history texts, versus 28% in U.S. history texts.<sup>80</sup>

While maps serve as visual aids to world historical understanding, they can also be primary sources that serve as evidence in world historical inquiry. Indeed, maps as way-finding tools have played a significant role human lives throughout the world's past, and have been as wide-ranging as an early map created by Egyptians of the twelfth century B.C.E. to find their way to gold and silver. to the iconic 1930s map of the London Underground. Some wayfinding devices proved truly transformative in world history, such as the map that encouraged Christopher Columbus to find his way to the East Indies with a westward route, charting the course to the great global convergence of the eastern and western worlds.81 Other maps—such as those of the Chinese in the Classical Age, or the British at the height of imperialism—reveal to the historian the habits, thoughts, and perspectives of the people who created them, helping us understand how people of the past saw the world, where they had gone, and where they thought they could go.82

Because someone within a particular context and with a particular purpose created any given map, world historical literacy also entails looking at maps with a critical eye. It means questioning the premises and choices that underlie maps, analyzing the arguments that the maps are conveying, as well as the features that were included and left out in making these arguments.<sup>83</sup> Maps have been and continue to be keys to knowledge and power, as well as mediums of propaganda. Those who are world historically literate see maps as they are, with all their potential to communicate information about time, as well as space.

# Visualize and Analyze Data at a "Macroscopic" Level

All historians are experts in looking at information from the past through a microscopic lens—sifting through large amounts of information for clues about the past and weaving a narrative by extracting "complex knowledge from the smallest crumbs of

evidence that history has left behind."<sup>84</sup> However, world historians must also regularly test relationships between that which they see through their microscopes, and larger patterns and trends occurring at the global level.<sup>85</sup> To that end, data visualizations such as tables, charts, and graphs are useful "macroscopes" in world history. By aggregating, compressing, and reducing complexity until obscure patterns and relationships become clear, they make it easier to grasp the incredibly large. <sup>86</sup> World historians can use these visualizations to make connections between local and global, to make comparisons between regions or time periods, or to illuminate global patterns. Data visualizations are thus an important complement to the microscopic lens of the world historically literate, and are critical for testing hypotheses and providing evidence for historical interpretations about how and why past changes occurred.<sup>87</sup>

Indeed, as with maps, recent research shows that temporal and topical graphs and charts are prevalent in middle and high school world history textbooks, providing information that is not in the written narrative. Moreover, the curriculum website *World History for Us All* includes at least one data visualization, such as a table, chart, or graph, in thirty-six of its seventy-five units, with a total of 177 data visualizations across all lessons. In a review of world history articles from the *Journal of World History* over the last ten years, we found that 13% of the original articles contained tables, graphs, or charts to help support authors' arguments. Authors use visualizations to make original arguments about historical change, to compare changes or consequences across regions, or to critique other historians' interpretation and use of comparative data. 99

The increasing availability of big data has made fluency with data and data visualizations a necessary skill in all historical fields, but particularly in world history. Reflecting the crucial role of data in weaving world historical narratives, a relatively new journal, the *Journal of World-Historical Information*, provides a forum for issues relating to the collection and display of world historical data and claims to be distinct in focusing on the interplay of creating, curating, and analyzing world historical data. Otherwise, the World-Historical Dataverse, the public archive of the Collaborative for Historical Information and Analysis, houses data that allow researchers to explore relationships among various collections, including datasets focusing on topics like place, population, precipitation, and war

since 1800, or points of embarkation and patterns of movement in the Atlantic Slave Trade.<sup>91</sup> As Manning states, "To conduct global historical studies we need global historical data."<sup>92</sup>

Given the role that data visualizations play in world history, world historically literate people must be equipped to make sense of data and data visualizations and to construct, interpret, and critically analyze world historical arguments that use them. Viewers must be able to connect the visualization with its context, comprehend how the author is using the data to support or illustrate their argument, and apply heuristics like sourcing and questioning methodology—skills that extant research suggests students often lack. 93 Students of world history who are not fluent in such literacy practices will likely miss key aspects of world historical argumentation and narrative.

#### Recognize and Empathize with a Variety of Worldviews

When approaching historical texts, historically literate individuals exercise a high degree of historical empathy. They try to understand the motives, beliefs, and behaviors of people in the past. Historical empathy also requires a sophisticated understanding of worldviews in history, or knowing that people in the past did not view the world in the same way as people in the present.<sup>94</sup> This means understanding people in the past on their own terms and making sense of them in terms of their ideas about the world. As Stéphane Lévesque argues, "People in the past not only had different forms of life but also experienced, interpreted, and acted according to different norms, values, and belief systems."95 Moreover, people in the past may have had completely different conceptions of the physical world and their place within it.<sup>96</sup> In order to properly make sense of the past, then, historically literate individuals must consider the different contexts in which people lived and how their understanding of the world shaped their actions. At the same time, they must recognize how their own worldviews shape how they approach the study of the past.

The scope of world history, once again, poses additional challenges to this key feature of historical literacy. World historical literacy requires one to deal with texts from throughout time and across the globe. The worldview present in any given text may differ greatly from the one of the reader. Being able to empathize with the creator of a text across temporal and spatial distance, while possessing an

entirely different worldview, makes the reading of texts in world history particularly demanding—as well as rife with potential misinterpretations. Peter Stearns warns that the multitude of sources from different cultural traditions throughout time and across the globe in world history multiplies opportunities for "misunderstanding and oversimplification."<sup>97</sup> Thus, readers must possess a high level of cross-cultural empathy in order to appropriately contextualize, interpret, and use the text to make claims about the past and its historical actors.

Compounding the challenges of historical empathy in world history is the fact that it is common for a world historical question to require that one looks at different sources from different cultural traditions, all at the same time. This entails a highly sophisticated level of contextualization, which novices in history seldom possess. 98 Consider, for example, a popular reader for world history, Worlds of History: A Comparative Reader, Volume 1, by Kevin Reilly.99 Reilly's book brings together a number of primary and secondary sources aimed at helping students answer historical questions. Sources in the book are from across the globe, including Africa; the Mediterranean region; West, Central, South, and Southeast Asia; Australia and the Pacific; Europe; Russia; and the Americas. One chapter of the book, "Gender, Sex, and Love in Classical Societies: India, China, and the Mediterranean, 500 B.C.E.-550 C.E.," asks readers what it was like to be a man and woman in the Classical Era, and what similarities and differences existed across societies. The chapter contains texts by Ban Zhao, the leading female Confucian scholar of classical China; Vatsyana, author of the classic Indian book on karma, written in the Gupta period; the well-known and influential Greek philosopher, Plato; and Ovid, one of the leading poets of the age of Augustus, the first Roman emperor. Reading and analyzing these texts requires understanding the various worldviews that produced them in order to fully grasp the similarities and differences at a nuanced, sophisticated level. The ability to fully contextualize these different works requires a sort of mental gymnastics of flipping back and forth between worldviews—likely a difficult task for someone unpracticed in exercising historical empathy and considering the influence different worldviews have in history. Additionally, the world historically literate person must recognize their own worldview as they approach the text. The distance between the historian and

the text, whether temporally, spatially, culturally, or intellectually, will determine how foreign the text is for the historian. Being able to span these distances through experience and practice in crosscultural historical empathy is indicative of world historical literacy.

#### Conclusion

World history courses have become a regular part of the secondary curriculum throughout the United States, and thus a regular part of the experiences of teachers and students. Though a uniform curricular and instructional approach to world history remains elusive, several scholars have argued that world historical inquiry that transcends national or civilizational boundaries and reveals patterns of change across time and space has an important role to play in preparing students for global citizenship. 100 However, to truly understand world history, students must do more than read and comprehend world historical accounts—they must also understand how world historians produce and communicate knowledge. They must be equipped to interpret and critically analyze world historical texts, and become active participants in knowledge production and dissemination. Pulling back the curtain on how world historically literate people understand and work with texts, as we have tried to do here, invites students into the work of critiquing, constructing, and communicating world historical arguments and narratives as they develop as global citizens. It provides a clearer picture of the habits of mind students need to unpack the work produced by others in world history, and to build and defend their own claims about the global past. We also believe that this work adds nuance to skills outlined by the C3 Framework for Social Studies State Standards. It suggests, for example, that "spatial and environmental data; statistics, [and] map representations" are just as critical to the world historian's toolbox as they are to the geographer's, and provides insight into the nature and role of "key concepts" in world historical inquiry and narrative. 101 This is important for educators trying to help their students make sense of and use a vast array of world historical sources and evidence. In sum, we believe that by engaging in the specific disciplinary inquiry and literacy practices of world history detailed here, students will be better positioned to become active and critical participants in the narratives that animate our collective understanding of the globalized world.

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