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Is History Still a Fraud?

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CYNTHIA STOKES BROWN. *Big History: From the Big Bang to the Present.* New York and London: New Press, 2007. xvi + 288 pp., illus., bibl., index. ISBN 978-1-595-58196-9. \$25.95 (hardcover).

DAVID CHRISTIAN. *Maps of Time: An Introduction to Big History.* 2nd edn. Berkeley: University of California Press, 2011. xxvii + 642 pp., illus., bibl., index. ISBN 978-0-520-27144-9. \$26.95 (paper).

EDMUND RUSSELL. *Evolutionary History: Uniting History and Biology to Understand Life on Earth.* Cambridge: Cambridge University Press, 2011. xxi + 216 pp., illus., bibl., index. ISBN 978-0-521-74509-3. \$23.99 (paper).

DANIEL LORD SMAIL. *On Deep History and the Brain*. Berkeley: University of California Press, 2011. xiv + 271 pp., bibl., index. ISBN 978-0-520-25812-9. \$21.95 (paper).

Frederick Spier. *Big History and the Future of Humanity.* Chichester, U.K. and Malden, MA: Wiley-Blackwell, 2010. xv + 272 pp., illus., bibl., index. ISBN 978-1-444-33943-7. \$130.95 (hardcover).

Roughly eighty years ago, J. B. S. Haldane questioned whether History, the academic and pedagogical discipline of History, was a fraud. New attitudes toward sacred texts and success in deciphering ancient scripts had made it possible "to-day for the first time to take a bird's eye view of history as a whole." By way of contrast with the prehistoric barbarism of invasions and stone ages revealed in art and human skulls, and, earlier still, of the prevalence of the "half-men" recorded in flint tools and Neanderthal skulls, History

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proper—that history made possible by written records—was no more than roughly seven thousand years in scope. With finality, Haldane declared: "We shall probably never know the name of any man, city, or nation before 5000 B.C."²

Current scholarship in "deep history," "evolutionary history" and, most popularly, "big history" continues to pose Haldane's question.³ Given the scope of their historical ambitions, I refer to such work here as universal history.⁴ To be sure, Haldane's view was that the history taught in schools, like in his own English public school and Oxford education, was a committed sham, if not an intentional fraud. It struck him as a parochial exercise detailing a progressive account of social organization and ethical life, treating only a few choice peoples who were celebrated as contributing to the culture of the European present. The universal historians of today are sympathetic to Haldane's attitude toward academic histories, and to the consonant critiques posed by contemporary world history, but assume a less polemic tone. They maintain a big tent argument: history is broad and robust enough to include research on scales of space *and* time larger than the usual academic case studies.⁵

Despite his accusations, Haldane suggested that academic, nonscientific history would be confined to the thousands of years in which written documents were available. Contemporary universal histories, by contrast, address materials covering hundreds of thousands to several billion years, refusing to honor demarcations separating written history from the unscripted eras preceding it. Specific names of men, cities, and nations are less the point than the forms of life, its groups (named or unnamed), or the impact of nature on human behavior and vice versa. They criticize older versions of History as too

^{2.} Ibid., 471.

^{3.} The choice of "big history" as a term of art appears to date to David Christian, "The Case for 'Big History," *Journal of World History* 2, no. 2 (1991): 223–38. The phrase "evolutionary history" in a disciplinary sense appears early in the last decade: see, for example, Edmund Russell, "Evolutionary History: Prospectus for a New Field," *Environmental History* 8, no. 2 (2003): 204–28, and Susan R. Schrepfer and Philip Scranton, eds., *Industrializing Organisms: Introducing Evolutionary History* (Florence, KY: Routledge, 2003). "Deep history," borrowing apparently from "deep time," emerges with particular strength as a term related to expanded chronological scales over the same years; see, e.g., Daniel Smail, "In the Grip of Sacred History," *American Historical Review* 110, no. 5 (2005): 1336–61.

^{4.} I share this vocabulary with David Christian. See David Christian, "The Return of Universal History," *History and Theory* 49, no. 4 (2010): 6–27.

^{5.} Christian, "Case for 'Big History" (ref. 3), 238.

temporally provincial, helping to prop up a deception still at play today: that human history began with written records.⁶

Universal historians who are based in the humanities or the human sciences themselves intersect with different disciplinary traditions. Advocates of "big history" include David Christian, who specializes in Russian and Soviet history, Cynthia Stokes Brown, a former professor of education, and the cultural anthropologist Fred Spier, trained in his undergraduate years in biochemistry. "Evolutionary History" remains closely associated with Edmund Russell, who holds a doctorate in biology and has worked with, for example, the environmental historian Susan R. Schrepfer and the historian of industry and technology Philip Scranton. Daniel Lord Smail, however, whose other main research interest is early modern Mediterranean Europe, advances work on "deep history" in conjunction with other historians, as well as with anthropologists of varying specialties, having co-authored articles with Andrew Shryock, Mary C. Stiner, and Timothy K. Earle. Despite the disciplinary differences, these humanities- and human sciences-based universal histories constitute a common embrace of earlier emergent historical syntheses within the natural sciences, with their own crisscrossing historical roots: "cosmic evolution," "evolutionary epic," the "modern scientific myth."8

BIG, EVOLUTIONARY, AND DEEP: NEW UNIVERSAL HISTORIES

In *Maps of Time: An Introduction to Big History*, Christian argues that big history provides a new "creation myth": a framework in which all smaller historical research can be fixed, through which the overall project of history can be understood and made more relevant to a wider public and by which

- 6. Smail, "Grip of Sacred History" (ref. 3), 1337, 1339.
- 7. See, e.g., Schrepfer and Scranton, *Industrializing Organisms* (ref. 3), and Andrew Shryock and Daniel Lord Smail, eds., *Deep History: The Architecture of Past and Present* (Berkeley: University of California Press, 2011). Also see the International Big History Association web site: www.ibhanet.org (last accessed 11 Apr 2013).
- 8. In the 1970s, a cosmic evolutionary synthesis gained consensus, one that could embed in crucial respects the evolutionary synthesis that emerged before and alongside it. Carl Sagan, Steven Weinberg, and E. O. Wilson were among its most prominent advocates. See, e.g., Carl Sagan, *The Dragons of Eden: Speculations on the Evolution of Human Intelligence* (New York: Random House, 1977); *Broca's Brain: Reflections on the Romance of Science* (New York: Random House, 1979); Steven Weinberg, *The First Three Minutes: A Modern View of the Origin of the Universe* (New York: Basic Books, 1977); and E. O. Wilson, *On Human Nature* (Cambridge, MA: Harvard University Press, 1978).

modern anomie and disorientation can be combated (e.g., 2 and 8–II). Based on his experience designing and leading a big history university course bringing together specialists of different eras and fields, Christian attempts to synthesize that scholarship into one broad account. In chronologically arranged chapters of broad strokes, the book moves from material to organic evolution, from the rise of human life and culture through to modernity. It concludes with reflections on the next century that strive for optimism, and still longer term possibilities including human migrations into space, and finally cosmological forecasts.

Brown's briefer *Big History: From the Big Bang to the Present* is similar in scope, chronological structure, and spirit, pursuing as well an extended pedagogic program. Brown opts for a plain and direct exposition; in conjunction with her choice to conclude each chapter on discussions of "unanswered questions" that could prod exchanges within a course, her work reads more as a survey textbook than a popular presentation. Some of these questions seem suited to introductory discussions that would themselves necessitate further indepth studies. In her chapter on "Industrialization (1750–2000 CE)," for example, the first two of her unanswered questions are "What do 'capital' and 'capitalism' mean?" and "Is industrialization a good thing?" (227–28). Like Christian (and indeed Smail), Brown sees the need to address the absence of the Paleolithic in history curricula, but is intent on presenting a much longer history, emphasizing not only anthropology, biology, and history, but physics, geology, and indeed the fuller scope of the natural and human sciences.

Spier also sketches this longer chronological account in his *Big History and the Future of Humanity*. But unlike his fellow big historians, in a preparatory chapter on his "general approach," Spier expresses dismay with the ambiguity or dissensus he finds in scientific definitions of energy, mass, and complexity, and offers instead his own more "everyday" definitions (23). His resulting history is predicated on the repeated combination of two principles: the rise of increasing complexity prior to its inevitable dissolution, and the conditions for sustaining that complexity. Following usage among astronomers, Spier repeatedly invokes "Goldilocks principles" to describe the optimal conditions for natural historical circumstances (recalling the Three Bears children's story, where the girl Goldilocks makes choices that are "just right"). To this, Spier adds the spatial and temporal variation in such conditions, the degrees of which he refers to as "Goldilocks gradients" (38). As a succession of such changing "Goldilocks circumstances," the vision is indebted both to the astronomer and educator Eric Chaisson and to Christian. The resulting big

history is represented as a succession of stages of space and time just right for the varied actors who are to play on that stage. Given the ambition to produce principles shaping a history of everything, Spier's presentation at times also sounds like an attempt at a theory of everything.

In contrast to these big histories, Russell's Evolutionary History: Uniting History and Biology to Understand Life on Earth is structured as a series of arguments for how humanity has shaped the evolution of other species, how they have co-evolved, and how anthropogenic or human-caused evolution has engendered and fostered agricultural and industrial revolutions. He devotes an exemplifying chapter to a demonstration of how various methodologies addressing the history of the Industrial Revolution fail to take into account the role of forces of unconscious selection in creating the conditions that made the Industrial Revolution possible (see also Christian, 207–44). Russell argues that appreciation of these conditions shines light on the impact of historical actors often neglected, human and nonhuman. These include Native American cultivators and different types of cotton, highlighting how different human actors selected plants yielding longer lengths of fiber, and how these plants likely played a role in the varying success of different textile machinery. The example demonstrates that big historical syntheses can be at their most compelling and distinctive in targeted case studies.

Like Russell, Smail attempts to integrate biology and human history by exploring the implications of contemporary evolutionary research on understanding human behavior over time, and on the co-evolution of humans and other forms of life. In On Deep History and the Brain, Smail argues that a new "neurohistory" informed by evolution and the neurosciences can lead to insights about elements of cultural evolution. The book attempts to construct a space for a deep historical account through a genealogical demonstration that the "sacred was deftly translated into a secular key" (4). As Haldane's account itself might suggest, this translation had confined disciplinary History to the time after the invention of writing; Smail argues instead that a more proper beginning is with human origins in Africa (e.g., 9-10 and 36). Smail then turns to a historical and conceptual exposition of different tools for understanding cultural history/evolution ("Between Darwin and Lamarck") and the sociobiological and culturally adaptable neurophysiological frames that underlie his proposed history of the brain and culture ("The New Neurohistory"). In a kind of proof-of-concept case study, he conjectures the singular importance of "psychotropic mechanisms," or "mood-altering practices, behaviors and institutions generated by human culture" (161). Contrasting with what he regards as

the stubborn universal historical paradigms borrowing from sacred histories, he suggests provocatively that "From the perspective of neurohistory, the progress of civilization is an illusion of psychotropy": civilization is marked by an increasing ability to produce psychotropic mechanisms and, perhaps (though Smail is less straightforward on this), conceiving of such an augmentation as progress is itself an artifact of these mechanisms (187).

These varieties of universal histories appear, then, to have significant consequences for scholarship. They contend that traditional representations can mislead, as Russell suggests in relation to the Industrial Revolution, or Smail with the continuing afterlife of sacred histories. They also suggest that historians' research programs lack orientation, the underside of Christian's claims as to what advantages the new origin myth offers. Given the manifesto-like quality of the conversation taking place within the professional community of academic historians, the new universal histories trace how their subject and its ambitions were banished from the narrow confines of university departments. Their point, in turn, becomes a modest one: let academic historians have their place at the universal historical feast and let history see what benefits might result. Their hopes, however, extend beyond any one discipline.

ATTESTED AND ALTERNATIVE GENEALOGIES

These universal histories share recurrent sources, deriving from them scientific facts that form events in their accounts, historiographic principles that serve to structure their own intellectual genealogies and an older historical and scientific tradition validating their newer projects. Though choice of whom to include remains idiosyncratic, key figures in the history of science form one of these common resources, and illustrate how these historians draw on and attempt to shape the scientific syntheses from which they take their cue. More recent synthesizing histories authored by scientists, however, are not generally treated as examples of academic histories themselves.

Although universal historians claim noncanonical, alternative genealogies, they sometimes overstate the absence of similar work in past eras. Spier, for example, finds a dearth of naturalistic universal histories in the latter part of the nineteenth century when, for example, Herbert Spencer, not to mention

^{9.} The latter possibility, however, would threaten to cast universal history itself as a product of psychotropy, an idea that Smail would not otherwise seem to welcome.

prominent figures like Hermann von Helmholtz, Thomas Henry Huxley, John Tyndall, and Robert Ball, wrote in such fashion (14). Similarly, Christian, Spier, and Smail cite H. G. Wells's early twentieth-century popular history, making the point that Wells's work was an example of what academic history would not allow. However, the theoretical scope of Wells's historical work borrows from one of his instructors, T. H. Huxley, who himself produced narratives of "cosmic evolution." Wells in turn worked with Huxley's descendants, biological and cultural, such as grandson Julian. Wells and the younger Huxley, along with others such as Haldane, J. D. Bernal, Jacob Bronowski, Loren Eiseley, and Harlow Shapley (who represented very different positions of scientific expertise), deliberated over templates underlying the scientific universal histories of future generations.

Looking so far into the past for intellectual forbears produces relevant oversights and ultimately gives lighter weight to still more proximate ur-big/deep/ evolutionary historians. Figures such as Julian Huxley and Shapley also helped establish the pedagogical and historiographic templates evident in the later natural scientific syntheses of E. O. Wilson and Eric Chaisson, and their syntheses are visibly stitched into the fabric of the histories reviewed here. Though these accounts constitute their own resistance to the dominant forms of academic history, universal historians implicitly de-emphasize the continuing universal historical efforts of natural scientists in favor of those produced by historians proper. That is, they treat scientists as resources rather than engaging with the historical narratives scientists created and maintained. Thus, their presentation of the tradition of authoring universal histories as one that by and large fell out of favor is itself an artifact of too narrow a disciplinary focus and too strong an emphasis on academic history. It threatens to represent the academic discipline of history as itself of singular importance with respect to cosmology before it has proven capable of playing that role.

If the universal historians are engaged in a strictly disciplinary argument, despite their synthetic (and apparently interdisciplinary) endeavors, their own specific contribution to the common myth may not be the most appropriate measure of their work. But granting for the moment that the explicit articulation and elaboration of a common myth is broadly desirable, the relevant genealogical question shifts emphasis: if natural scientists, popular authors, and others have composed and found receptive audiences for universal history, any obstructive attempt of contemporary historians to excise universal histories from their professional lives may be of negligible importance. If these universal historians themselves are, as they claim, working to efface the disciplinary

boundaries between history and science, it is unclear how much it should matter that those who have sustained the tradition of universal history are currently scientists or historians, popular authors or academics.

UNIVERSAL HISTORICAL OBJECTIVITY

Universal histories additionally downplay the extent to which the choice of events and processes, or the variations in historical approach, might depend on the historian. Brown in her preface makes the familiar claim: "Every author who writes big history does so with some unique emphasis, some unique voice" (xii). She follows this point by noting that in her own analysis, "I try to stick to the information and theories well-accepted in the scientific community, staying as unopinionated as is humanly possible. I am telling a story, not making an argument" (xii). Despite the disclaimer, among the arguments in Brown's narrative is an implicit claim about the essential elements that should comprise a contemporary universal history. Each universal historian similarly conveys a personal vision of how to orient all historical knowledge. The character of Brown's big historical approach, namely her attempt to integrate the arc of cosmic evolution into the development of life and increase in human populations, contrasts with the importance Russell and Smail attach to their test cases.

But that contrast is muted when, for example, Russell states that "anthropogenic (human-caused) evolution made possible the most important transition in human history, the agricultural revolution," and that "anthropogenic evolution sparked the second most important transition in human history, the Industrial Revolution" (3). These statements are predicated on a similar logic to Brown's—the most important transitions for all humanity are now beyond doubt. History in such large terms conspires to produce such a "top-ten" list with some explanation of its entries, undercutting Russell's argument that an understanding of anthropogenic evolution can add depth to historical analysis. Even Spier, who adopts a more evaluative attitude toward the sciences, takes as given many of the important episodes of history.

The concomitant of what the universal historians represent as the advantages of their own histories is the Haldanian characterization (implicit or otherwise) of other research as distortedly exclusive and provincial—hampered by narrower perspectives (e.g., Russell's argument concerning other treatments of the Industrial Revolution). Universal history emerges in all these works as if it were less subjective—and more ambitious—than other forms of history.

This in turn brightens the line between the universal historians, who might claim greater objectivity for their accounts, and other historians who cannot (and would not) claim it so directly.

UNIVERSALIZING HISTORY OF SCIENCE

Universal histories, in turning their backs on decades of critique, sit uncomfortably beside other historical scholarship they engage. In embracing work that shared a spirit with enlightenment-era projects, these accounts are structured through historical tropes that in the current intellectual context can be neither straightforwardly endorsed nor ignored. Among these tropes, as already glimpsed in this essay, are the absolutist vision of scale and its presumed correlation to intellectual ambition and power; the opposition between narrative and argument; and the implicit dependence on a narrow concept of historical objectivity. The new universal histories also rely on the ideas of history as an instrument for or teacher of life; the embrace of a two cultures vision (regardless of the heterogeneity of the natural and social sciences); and the romance of the sublime.

These efforts provoke knotty questions for science studies. For history of science in particular they elicit the question of whether historiography should attempt methodological agnosticism with regard to scientific truth and falsehood. As history of science of the last several decades has repeatedly demonstrated in intersecting with science and technology studies that work to uncover the political subtexts of scientific and technological production, the presumption of scientific truth or technological benefit can mislead us. Whether or not the history of science can embrace contemporary cosmologies, or contemporary cosmologies ultimately sublate the history of science, the dangers of oversimplification and relinquishing agnosticism raise specific historiographic questions. These relate to whether scholarship in the history of science can have faith that universal histories, reliant on current scientific knowledge, are unproblematic enough, even if only "from the perspective of the early twenty-first century" as Christian proposes (II). If scholarship is dictated by its questions, can the history of science challenge the presumed present-day implications of cosmological truth (as T. H. Huxley did with "evolutionary ethics")? The history of science thus remains in tension with universal historical tendencies to present a progressive march of increasing scales and knowledge, a representation consonant with the Whig history the discipline has worked so much to exorcise.

To say that the universal historians raise such thorny historiographic questions does not preclude the possibility that much rich history can be produced by their theoretical commitments. The impact of new universal historical work remains to be seen. There is thoughtful argument already in these universal histories, argument that might provide resources and stimulate efforts within the history of science. This is most clearly the case when their historical deliberations share their ethical thrust with history of science or its cognate fields, suggesting potential oversights in the contemporary literature. Smail or Russell's historiographies, as with big historical apologetics, propose ways to discover and give voice to central historical actors/agents who have been silenced, disempowered, or overlooked, or to interrogate what has been naturalized in conventional historical inquiry including in histories of science.

The rhetorical motives of universal histories can be understood as the claim that they overcome the problematic nature of pervasive historiographic quandaries. To succeed in that effort means embracing what T. H. and Julian Huxley, Haldane and Wilson, and many others have posited—the need to overcome boundaries between historical inquiry and the natural sciences. The history of science would be part of that process. But attempts to produce a congruity between natural science and the history of science has at times led to outcomes contrary to the universal historical ambitions reviewed here. Given these continuing principled disagreements, and given the different conceptions of universality *and* non-universality, it is difficult not to be skeptical of the most far-reaching promises made by these universal histories, or to imagine any unified reaction by historians of science and science studies scholars to their cosmological aesthetics or programs.

It is equally difficult to imagine a universal historical approach that does not raise as many problems as it does promises. Dominant historiographies might re-encode the proscriptions of sacred histories or embrace a restrictive documentary empiricism; overemphasis on national boundaries might be the artifact of (unsavory) disciplinary history or convenience. Objections to universal historical reorientations do not, however, simply arise out of the fetishization of specific scales or subjects, or the cowering before a romantic, inhospitable aesthetic. As a discipline, history of science historicizes scientific universals across a multiplicity of viewpoints, and its historiographic principles often

^{10.} Though Christian for one defends his program in the language of "Kuhnian paradigms"—e.g., Christian, "Return of Universal History" (ref. 4), esp. 19–20, 24—he would reject much of what the Sociology of Scientific Knowledge would see as a consequence of that position.

clash with the theoretical premises and the overt ambitions in the big, deep, and evolutionary histories. From the perspective of the universal historians, such resistance may itself perpetuate frauds of scale and subject, frauds that for current history of science turn on treating the natural and human sciences as historically contingent and local. But bearing in mind the ways in which the discipline of the history of science has problematized the nature of the sciences, it becomes difficult to see how its subtle scientific subject matter can form a better, more resilient foundation for universal history.

When big, deep, and evolutionary histories argue that they can orient or reform historical understanding writ large, they tend to present historical scholarship as less problematic than it is, whether it is the nature of historical aggregation (how one history may or may not relate to another), the nature of historical objectivity, the critical analysis of scientific ideas inherent to history of science, or the character of scientific truth and error. These are problematics that the universal historians largely reject. By contrast, universal histories present an encompassing call to arms. This call often invokes an aesthetic that represents everything living in a heroic mode, each individual the survivor of a punishing, cosmic process that reveals and asserts organic unity. Darwin's famed sentiments concerning "grandeur in this view of life" animate their vision (e.g., Smail, 202). Despite attempts to assume a nonprovocative stance, the persistent message of their studies is that a good deal of historical research (history of science or otherwise) is less grand in its view of life, less ambitious than it should be. In the absence of the larger temporal frame or proper cosmology, they imply, history can be pointless, meaningless, or even harmful. In that sense, Haldane's implicit accusation remains as pointed.

For Haldane, history was "Man's attempt to solve the practical problem of living"; the fraud therefore centered on too little attention being paid to those in history revealing the most of this problem, whenever, wherever, and however they lived. 11 The deference to plurality and the awareness of fragmentation cuing much conventional historical scholarship ensures that History remains a fraud in Haldane's sense: the myriad practices of living individually demand fair attention while History itself has vacillated in the presumed role as teacher of life. Whether or not today's universal historians can right such a fraud depends not only on convincing others to accept their unifying frames, to acknowledge the fraud of History as a fraud, but also, more immanently, that their works reveal more of the problem of living than do their less grand counterparts.