**David Christian. *Maps of Time: An Introduction to Big History.***
**University of California Press, New Edition, 2004.**

**Leonid E. Grinin, Andrey V. Korotayev, Barry H. Rodrigue, eds.**
***Evolution: A Big History Perspective*.**
**Volgograd: Uchitel Publishing House, 2011.**

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What is history? Or rather, what are the appropriate time-scales that can be constituted as "*history"?* The general consensus among scholars is that history is the study of approximately the last 5,000 years or so due to the existence of written records. Anything prior to that is generally considered *pre-history*, at least as far as it concerns the existence of human beings on earth. As for the creation of the earth we live upon, or the solar system our planet dwells within, or the universe as a whole these are considered outside the formal domain of historical research. That is, until the advent of the field of Big History that has emerged within the past few decades to challenge these distinctions as merely arbitrary and encourage scholars to think on much larger time-scales. David Christian is generally attributed as the father of the field, and he outlines his vision for it in his monumental book *Maps of Time: An Introduction to Big History*.

In the Introduction, Christian declares Big History as being nothing less than "a coherent and accessible account of origins, a modern creation myth." (pg. 2) According to Christian, modern people live in an age of "disenchantment", as Max Weber famously argued, and as a result the questions to man's deeper questions of existence often lack satisfactory answers. The implicit argument is that the stories told by traditional religious and spiritual beliefs no longer hold as much explanatory power in the modern world, and thus need to be answered "with modern knowledge and modern questions" (pg. 11).

From this vision Christian proceeds with his unfolding of a "modern creation myth" starting with the Big Bang and continuing into the modern age. The chapters are divided into six parts that each cover a coherent theme:

- Part I: The Inanimate Universe (Chapters 1,2, and 3)
- Part II: Life On Earth (Chapters 4 and 5)
- Part III: Early Human History: Many Worlds (Chapters 6 and 7)
- Part IV: The Holocene: Few Worlds (Chapters 8, 9, and 10)
- Part V: The Modern World: One World (Chapters 11, 12, 13, and 14)
- Part VI: Perspectives on the Future (Chapter 15)

Each chapter follows the same general formula: a few pages that outline the existing data on the topic so far, followed by a quick summary at the end, concluding with a mini-bibliography of books to read for further information. Given the vast time-scales David Christian has to cover within this single book, and the vast amount of specialist literature one must consult in various fields, he does a sufficient job of introducing readers to the topics at hand. The book suggestions at the end of each chapter are also a nice touch as well for any reader curious for more information. Of course, for one book to cover this vast amount of information, certain detailed discussions are omitted. David Christian admits this issue within the introduction, and that his intention is "not overwhelming the reader with detail." (pg. 6) In this sense, David Christian has indeed achieved a remarkable tour de force for at least providing the building blocks for a whole new field seeking to achieve interdisciplinary research on a grander scale.

The only real issue that remains with Christian's account is how he deals with the issue of creation myths and the need for a modern version. This can be a quite tricky and sensitive issue, given the significant role traditional religions still play in world affairs.[1] Whatever one's personal religious beliefs, it is a reality scholars must take seriously. Thankfully, Big History as a field has matured considerably on this issue since David Christian first wrote *Maps of Time,* where any implicit issues of conflict with religious beliefs are cast aside and thus a healthy pluralism of beliefs are allowed to flourish within its frameworks.

While David Christian's *Maps of Time* can be considered an introductory overview of Big History for a general audience, *Evolution: A Big History Perspective* edited by Leonid E. Grinin, Andrey V. Korotayev, and Barry H. Rodrigue may serve as a more scholarly introduction to an important subset to the field, that is the Social Evolutionary or Russian school of Big History. Each of the editors are themselves principal representatives of the school, and much of its agenda is outlined in this anthology of scholarly essays on various aspects touched upon by the field.

The introduction "Evolution and Big History: From Multiverse to Galactic Civilizations" by the editors opens with this declaration:

> A macroevolutionary approach and the new field of Big History seek to *develop an inclusive view of the Cosmos, Earth, life and humanity* by erasing boundaries between disciplines.

[1] These issues were addressed at the 2012 Big History Conference in Grand Rapids, USA. See Satkiewicz, Stephen; "Big History and the Religious Perspective" at https://voegelinview.com/big-history-big-data/ Accessed 9/29/21

> Big History is a versatile study that brings together constantly updated information from Astronomy, Physics, Geology, Biology, Chemistry, Anthropology, Psychology and other scientific disciplines, and then merges it with the contemplative realms of Philosophy and the Humanities." (pg. 5, emphasis in original)

There are three main sections that the essays are grouped into, as follows:

1. Evolution and Understanding Big History
2. Big History's Trends and Phases
3. Essays on Big History

It would be impossible to do justice to the wide range of topics addressed within this volume. The first main section "Evolution and Understanding Big History" contains several personal histories about the emergence of the field of Big History. David Christian's essay "The Evolution of Big History: A Short Introduction" pretty much parallels the story he told in the introduction to *Maps of Time*. Barry H. Rodrigue's "The Evolution of Macro-History in the United States" details how his experiences of teaching Western Civilization courses led him to the field of Big History.

Perhaps one of the most intellectually enriching essays in the whole book is "Biological and Social Phases of Big History: Similarities and Differences of Evolutionary Principles and Mechanisms" by Leonid E. Grinin, Andrey V. Korotayev, and Alexander V. Markov. This essay successfully outlines the theoretical models necessary for social evolutionary research (building upon the anthropological work of Christopher R. Hallpike), but also adds an important qualification on the significant differences between social and biological evolution. This is an especially crucial point to emphasize, since for too long many reductionist theories have dominated the discourse on the matter, at least in the popular science genre. The premiere examples of such would be the works of Richard Dawkins, Susan Blackmore in *the Meme Machine* (Oxford University Press, 1999), and E.O. Wilson's *Consilience: The Unity of Knowledge* (Vintage, 1999), that almost seek to reduce all human behavior and thoughts to mere biological elements. Social scientists have rightfully been critical of this kind of biological reductionism, and thankfully even the field of social evolution itself has seemingly moved on from such presumptions over the past few decades.

This is in part due to the emerging fields related to Complex Systems Theory and Analysis (as researched at the Santa Fe Institute and the New England Complex Systems Institute) that have developed models of social and cultural evolution that do not negate the critical role of human agency, even if it is examined in wider contexts.

This multidisciplinary approach has yielded very insightful results related to the study of civilizational analysis.[2] This marks an important turning point in trying to usefully synthesize the methodologies of both the natural and human sciences together to research the complex nature of human social relations.

Since the time of the publication of both of these books (roughly a decade or two), Big History as a field continues to grow and mature, as it should with its grand ambitions. The critical question remaining is how those scholars trained in the traditional humanities and social sciences should respond to the field. Thus far, the main reaction appears to be either hostility or indifference. It might be a great mistake to not at least be critically open to the field's findings. There is still plenty to criticize about how Big Historians approach their materials, specifically how it can emphasize the natural scientific methodology over that of the human sciences. Nevertheless, the field is at least making a noble attempt to get the two forms of sciences to work together under a common feasible framework. Perhaps civilizational analysis may assist in that endeavor, itself being an interdisciplinary project in its own right.

[2] One example of this is Yaneer Bar-Yam, "Complexity rising: From human beings to human civilization, a complexity profile," in *Encyclopedia of Life Support Systems* (EOLSS), developed under the Auspices of the UNESCO (EOLSS Publishers, Oxford, UK, 2002). https://necsi.edu/complexity-rising-from-human-beings-to-human-civilization-a-complexity-profile accessed 11/27/21