

Review

Reviewed Work(s): Impact of Tectonic Activity on Ancient Civilizations: Recurrent Shakeups, Tenacity, Resilience, and Change by Eric R. Force

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with any depth into basic methods and theories. There is no chronological gradient to the book, which makes it hard to reconstruct the unfolding history of a complex enterprise. Nor is it global, even if the author wants to give the reader that impression. World prehistory is barely mentioned. There is virtually no coverage of China and Southeast Asia, nothing on Australia, New Zealand, or the Pacific. The chapters on the Americas are grossly inadequate. Three chapters on the Americas, two on classical archaeology, and two on the entire span of prehistory lie alongside five chapters on the discovery of the early civilizations and four on the Holy Land and environs. The Indus civilization is effectively ignored. I found one reference to Harappa, none to Mohenjodaro.

A book like this is very difficult to write, far more so than C.W. Ceram's classic *Gods, Graves, and Scholars*, published over sixty years ago. There have been few efforts at writing an alternative, hardly surprising given the explosion in both knowledge of the past and in archaeological methods. This is not such a work, nor is it a structured textbook. Cline's valiant effort raised questions in my mind. Would a lay person like this book? Would it inform them adequately and get them interested in archaeology? Obviously, there are some readers interested in eastern Mediterranean and biblical archaeology who will enjoy this book. But I wonder how strongly *Three Stones* will appeal to much wider audiences. I suspect the book is too long to entertain and inform general readers in an era of sound bites and social media. My suggestion would have been to cut out the detailed references, which would have saved as much as a hundred pages, and use them to focus the narrative. I would also have shaped the book around a taut story based on several important themes, or questions, rather than areas, which would have made it shorter and more compelling. This is difficult to achieve, but would result in a fascinating, even powerful, work. And what a pity that drawings, while of good quality, rather than photographs, illustrate these pages. Cline has written a rather breathless and fast moving journey through archaeology, which displays a broad knowledge of the ancient Mediterranean world. I hope that he uses the experience gained from this work to write a popular book about the eastern Mediterranean past. It should be well worth reading and attract a broad audience.

***Impact of Tectonic Activity on Ancient Civilizations: Recurrent Shakeups, Tenacity, Resilience, and Change.* By Eric R. Force.**

Lanham, MD: Lexington Books, 2015. Pp. vii +199.

Hardback, \$80. ISBN: 978-1-4985-1427-9.

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“Civilization occurs with the consent of geology.”

—Will Durant

American historian Durant's comment says it all for this interesting book. This succinct presentation concerning the huge role tectonics plays in human development and success is exactly what is too often neglected or misrepresented in interpretations of civilizational life cycles extracted from archaeological excavations. Simply stated: tectonics . . . shapes geography . . . shapes culture. Eric Force presents an impressive portrayal of that relationship in a book that should be in every library that focuses on the archaeological and geological sciences. His presentation needs considerable expansion, especially on environmental/climatic factors and tectonics, and does have some issues needing thought and correction. But it is an impressive start that deserves more attention than this review can provide.

The book is in four parts. Part I discusses “Great Ancient Civilizations” and the “tectonic footprints” imbedded in their setting, interaction, success, and survival. He covers the classical Hellenistic period, Iron Age, and Etruscan-Roman periods with an emphasis on volcanism; Bronze Age in the Aegean focusing on volcanism and seismicity; the Levant, Southwest Asia, and the Judeo-Christian cultures and traditions and local tectonism; then addresses cultures in India and China.

Part II attempts a simple quantitative analysis of that tectonic footprint on ancient cultures and their geographic setting, endurance, and interaction. The application of rudimentary probability statistics to a dataset that is so limited it is perhaps not suitable, especially

since simple inspection adequately portrays the same relationships. But it is an interesting exercise. As an example, Force has plotted (Figure 8.1) the duration (in years) of ancient complex cultures vs. approximate distance (in km) of the originating center for that culture from the closest tectonic boundary. The conclusion is that the closer the initial siting of a culture was to that boundary, the shorter its duration. Another interesting relationship appears with circum-Mediterranean centered cultures and those sited elsewhere forming a bimodal relationship. There is much to question and ponder here: width of the tectonic zones (some could be considered up to, or perhaps more than, 100 km wide, thus the semi-log plot), placement of the surface expression of the tectonic zone, the lack of understanding concerning tectonic boundaries through China and adjacent areas, and more. How did each of these affect cultural development?

In Part III, the author briefly inserts time via comparisons of cultures preceding and postdating classical antiquity, to emphasize how the expansion of technology and population partially, but briefly, swamped the tectonic imprint—or so it was thought by those ancient inhabitants. And what best for a comparative illustration but contemporary cultures? Even today, we are surprised by the huge tsunami, the mega-eruption, the large magnitude earthquake. Was it considered and designed for? Did we recall the last megatectonic-induced event? Can we extrapolate from contemporary practice to ancient patterns? The discussion in this part of the book is far too brief.

Part IV then emphasizes the relationship of tectonics and cultural complexity, the latter as almost a Darwinian-type spatial relationship to zones of active earth activity with focus on natural resources such as metals and water. Here, the author contends, is perhaps the primary determinant in the initiation, success, and survivability of civilizations. Much more could be said on this topic.

The argument goes far beyond a presentation on dramatic and episodic catastrophic affairs such as tsunamis, volcanic eruptions, and seismic events. Rather, here is an analysis of the slow grinding and shaping of the earth's crust by tectonism that sculpts landscapes, its resources, and climate, as determinates in the setting for cultural

occupation and success. Most helpful is the extensive bibliography, roughly 300 references merged nicely into the text.

Consider this book to be an introduction to a subject often slighted in archaeological studies. For example, a prominent and superb treatment of the cultural history of the Mediterranean region, containing nearly a thousand pages of text, includes only eleven pages mentioning tectonics and one on earthquakes. In geoarchaeology textbooks, there is usually about that same ratio of entries for tectonics to everything else. Yet those destruction deposits so prominent in every excavation are often the final chapter in a habitation story, describing far more than simple termination but the ground-truth of that end. Given the prominence tectonics has in this process, there needs to be better discussion of it in texts. Eric Force amply provides that discussion.

There are some problems with the book. First of all, the few photographs are blurry. Surely the author and/or publisher can do better. The graphs and sketches are also poorly done. They are important to show the landscape features mentioned in the text, distinguish land and sea boundaries for clarity, show modern geographic features for easier orientation especially those mentioned in the text, and, most important, depict geological features that are at the heart of the presentation. Maps, again critical to the discussion, are either lacking or are roughly sketched. In terms of content, the success of cultures is also largely influenced by climate and climate change, and that needs discussion in greater depth as climate is a function of tectonics. The text often reads like a much-expanded term paper, which apparently is where it started, in need of much more thought, explanation, consideration, and expansion.

The book is just under 200 pages, but it is a good first attempt at developing this theory. The thoughts are interesting, and, at the end, one wants to hear more from the author. It is a broadly-based narrative, the examples are adequate if often too generalized, but then much more detail could likely dismiss the non-scientific reader. A brief postscript is a fine note for the future of geoarchaeological research from the author's perspective following his insights and revelations that

came from writing this book. It is a start for a subject hugely significant in human evolution, social and otherwise, that is too often neglected in accounts dealing with cultural histories simply because time-scales between cultural and planetary processes are so different. This book forces archaeologists to deal with that interaction and its repeated impacts.

It is the recurrence of tectonic activity that serves “as a dance of culture to a . . . rhythm, performed in such slow motion that individual humans can barely live long enough to hear consecutive beats.” That quote ends the book. Let us hope for an expanded and better-illustrated edition in the future.

***The 5 Minute Archaeologist in the Southern Levant.*
Edited by Cynthia Shafer-Elliott.**

Sheffield, UK: Equinox, 2016. Pp. v + 253. Paperback,
\$20.95. ISBN 978-1-78179-502-6.

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This is a peculiar little book that I like very much. It consists of 56 short essays intended to be answers to questions that archaeologists might be asked about archaeology by the person sitting next to them on an airplane; hence the phrase “5 minute archaeologist.” The questions range widely, from basic ones about the purpose of archaeology (e.g., Chapter 2, “How Does Archaeology Help Us to Understand the Past?”), to archaeological methods (Chapter 15, “Why Sift and How Often?”), to epistemology and ethics (Chapter 56, “Is it Ethical to Excavate in Contested Areas?”). A few of the questions are oddly specific (Chapter 27, “How Do You Identify a Dirt Road?” or Chapter 32, “How Does Bayesian Statistics Help Pinpoint Dating?”), but the vast majority is on topics about which I have been asked at various times by non-archaeologists.

The book is divided into four sections: “Basics,” which covers general archaeological methods; “Artifacts, Architecture, and Dating,” which covers aspects of

analysis; “Types of Archaeology,” which is focused on theoretical perspectives and topical areas of interest; and “Ethical Issues,” which considers ethics but unfortunately misses some essential topics such as excavating human remains, working with descendant populations, and conducting research on unprovenienced artifacts.

As in any collection of essays, the quality varies, but there are no real duds in the book, and some of the essays are outstanding. For example, Aren Maeir’s essay “What is Archaeology?” provides an elegant overview of the purpose and practice of archaeology in less than three pages—it is a tour de force. Similarly, Sarah Kiehl Costello creates a thorough answer to the question “What is Post-Processual Archaeology?” in three pages. Oren Borowski’s essay “Who Pays For All This?” is remarkably clear and comprehensive. Eric Welch in “What is a Phase and a Stratum?” provides an engaging introduction to what could have been an extremely dry topic, as does Tim Frank in his overview of taphonomy in “How Do You Identify an Artifact and How It was Used?” And there are other fine chapters in the book.

That covers what *The 5 Minute Archaeologist in the Southern Levant* is; now on to what the book is not. Foremost, it is not focused on the Southern Levant. Only two of the chapters (37 and 38) focus on issues that are truly unique to the Southern Levant, and only five others (3, 10, 25, 43, and 44) could be considered somewhat unique to Levantine archaeology. But the vast majority of the chapters focuses on topics, and even uses examples, that any archaeologist might be asked about. I think it was an unfortunate error to add “in the Southern Levant” to the title, as it makes it seem that the book is tightly focused when it is not. This is a book suited to anyone interested in archaeology anywhere in the world.

The book is also not a general introduction to archaeology, primarily because it lacks an overarching narrative or organization that would take a reader through the entire archaeological process of data recovery, analysis, and interpretation. Indeed quite a few of the chapters would assume some prior knowledge of archaeology (Chapter 22 “What is Primary vs. Secondary Use?”), and there are some important topics missing such as systematic recordkeeping and mapping. There is also considerable overlap between some of the chapters. In