
Derek Peterson, *Flat Earths and Fake Footnotes*

Derrick Peterson, *Flat Earths and Fake Footnotes: The Strange Tale of How the Conflict of Science and Christianity Was Written Into History* (Eugene, Oregon: Cascade Books, 2020); <https://tftorance.org/2020-DP-1>

Preface

“Where did the notion of the warfare thesis come from? How did it take hold? What myths were used, and why? How was it uncovered, and eventually overturned in academia? Why are Christians not talking about it more?” (p. ix)

- Who is this book written for?

“This is neither a work of theology nor of philosophy nor of history properly speaking” (p. xi)

- What kind of book is this?
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Introduction: Clever Metaphors

“Once the constructed nature of the categories [of science and religion] is taken into consideration, putative relationships between science and religion [like their historical conflict] may turn out to be artifacts of the categories themselves...” Peter Harrison (p. 4)

- Why is history so important to the construction of our ideas of science and religion?
 - How are such categories constructed through stories, told and retold?
 - Compare the need for and role of academic studies, popular works, and studies in between (like this one, which interpret academic studies for a general readership).
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Part One: Deleting Theology

- What does Peterson mean by the theme of “Deleting Theology”?
 - Has Christianity become marginalized as an actor in intellectual history? Is history is written to construct specific categories of science and religion which by nature cause religion to become invisible, distorted, or marginalized?
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Chapter 1: A Da Vinci Code is Found: Pierre Duhem and the Rediscovery of the Christian Contribution to Science

Story: The mystery of the delayed publication of Duhem’s *System du Monde* and what that shows about how we think we understand science and religion.

Key figures: Pierre Duhem vs. George Sarton. Leonardo da Vinci. Thomas Kuhn.

Key publications:

- Pierre Duhem, *Études sur Léonard de Vinci* (1906-1913), 3 vols.
- Pierre Duhem, *Le Système du monde* (1914-1959), 10 vols.

“Over the last half-century, the discipline of the history of science and religion was turned on its head.... So thorough has this dismantling of the ‘warfare’ or ‘conflict’ thesis been, that it exists now only in ‘the cliché-bound mind’ of popular works of polemical history.” (pp. 14-15)

- What has been the role of rethinking the “Scientific Revolution” in this dismantling?
- How do second thoughts about the Sci Rev affect the Science-Religion discussion?
- How does the public understanding of science take shape?
- What role was played by the category of “genius” in constructing the Sci Rev and the warfare thesis? Example: Leonardo (later Newton)
- How does the category of “genius” dispense with the past, and assert that historical influences should be ignored?

“Though Sarton had personally reviewed the first volume of Durham’s *Le System du Monde* in 1914 for the journal *Isis*, and was well aware of Duhem’s Leonardo studies, not once is Duhem’s work on Leonardo mentioned in Sarton’s article even to be refuted.” (p. 28)

- If the history of science is conceived of as cataloging the novel discoveries of isolated geniuses, how is it vulnerable to further historical investigation?
- Why did Duhem’s discoveries of predecessors for Leonardo and for Galileo pose such a severe challenge to the warfare thesis as well as to the Sci Rev and to positivist history?

“Christian theology and practice provided resources that, at multiple different levels, both removed certain impediments to science and provided theoretical underpinnings that gave direction and justification to certain methods, principles, and theory selection.” (p. 31)

- In refuting a secularized, sanitized, theology-deleting account of the Sci Rev, Peterson argues that Christianity was a significant actor in the story of science. Does this commit one to arguing that the Sci Rev was born out of Christianity? If that were the case, how would such a narrative be vulnerable to changing understandings of the Sci Rev as itself continuous with earlier science?

The Duhem-Quine thesis: theories are always underdetermined by data (p. 31)

- How was Duhem not a positivist in his philosophy of science, as well as in history of science?

Duhem: Condemnations of 1277: the birth certificate of modern science (p. 33)

T. F. Torrance and medieval investigations of space and time (p. 34).

Peterson describes two dualisms (p. 40):

1. Chronological discontinuity between medieval and early modern science (construction of the “Scientific Revolution”)
2. Discontinuity between the theological and the scientific enterprises; deletion of theology in history.

“It is impossible for us to call ourselves completely non-Christians.” Benedetto Croce (p. 41)

- What does a claim like this mean with respect to science?

Chapter 2: Paper and Bone: The Deletion of Theology from the History of Ideas

Story: Newton's papers and Descartes' bones illustrate the deletion of theology in the construction of the story of science.

Key figures: Adam (as the first scientist); Francis Bacon; Isaac Newton's *papers*; Descartes' *bones*.

Tom Holland epigram: "So profound has been the impact of Christianity on the development of Western civilization that it has come to be hidden from view." (p. 42)

Francis Bacon: "As Harrison notes, in Bacon's time... 'Godly individuals were to be active participants in history, directing their efforts towards the establishment of those conditions that would usher in the final age of the world' and hence to do 'science' was to participate in Christ's restoration of what Adam lost." (p. 44)

To do "science" and to do "religion" are not so cleanly separable as a modernist expects (or a positivist requires).

- What is secularization?

One key meaning of "secularization" for this book means "the tendency of interpreters after the modern period to downplay, extract, hinder, or otherwise work contrary to the religious and theological dimension of [historical] thinkers." p. 47, citing Firestone and Jacobs.

- How are positivist histories instruments of secularization?

"While positivism died as a movement in the mid-twentieth century, the relics of the histories it had rewritten and left behind were often left unexamined. As ghosts they wandered, living a shadowy afterlife haunting textbooks, popular histories, and pop culture at large." (P. 48)

Positivism is dead, but positivist histories live on, enshrining a narrative of secularization, perpetuating an assumption of the marginalization of religion and theology.

Papers of Isaac Newton. (pp. 49ff.). How Newton's image has come down to us.

Descartes' bones (pp. 58ff.). The Church of St. Geneviève became the Pantheon. "Even secular science, it seems, has its relics." (p. 59).

Chapter 3: A Quiet Revolution: The New Historiography of Science and Religion

Story: How the positivist historiography fell apart

Key figures: August Comte, Logical Positivism, John Hedley Brooke

Key publication: John Hedley Brooke, *Science and Religion: Some Historical Perspectives* (1991)

Positivist deletion of theology: “The denial of the existence of a transcendent external world would be just as metaphysical a statement as its affirmation. Hence the consistent empiricist does not deny the transcendent world, but shows that both its denial and its affirmation are meaningless.” Moritz Schlick, p. 63.

Schlick was murdered by one of his students; cf. p. 69.

Historiography of the scientific revolution a positivist perpetuation of discontinuity between medieval and modern science, and between theology and natural science. (Two dualisms)

Back to Newton... “So intricate is the network of religion and natural philosophy in Newton that it is useless to look at Newton in terms of how his religion affected his science, or vice-versa.” (p. 73)

Back to Descartes... Etienne Gilson argued that Descartes, “despite his own endless assertions of originality and his representations by posterity as something of a singularity, was in fact deeply indebted to the scholasticism he renounced.” (p. 74)

“A Quiet Revolution: Rise of the New Historiography” (p. 76)

- What is the new historiography?

“Many avenues supposedly free of theology are not in need of theological application but of a recollection that many of their own components are latently theological.” (p. 79)

John Hedley Brooke, *Science and Religion: Some Historical Perspectives* (p. 83)

Artificiality of abstracting science and religion and then setting them against one another.

- What was it like when you first read Brooke?
- Do you know anything about Torrance’s reading of Brooke?
- Why do you describe the new historiography as “quiet”?
- If the history of science as a discipline was established in part to shore up a positivist conception of science, and along with that, a mythology of the “Scientific Revolution,” then what are the implications for the future study of the history of science and religion? Where and who will study the history of science and religion now?

Part Two: The Lords of Time

- Does the title refer to figures who constructed a positivist history of science and religion?

Chapter 4: What the Bulldog Saw: Huxley, the X-Club, and the (Re-) Writing of Scientific History

Story: The Huxley-Wilberforce debate

Key figures: T. H. Huxley, the X-Club, William Wilberforce

Read Chadwick epigram, p. 87.

What is the short version of the story you tell in this chapter?
Which historians are doing the most helpful work here?

Chapter 5: The Armchair at the Center of the World: Andrew Dickson White, Religion, and Warfare in the American University

Story: The Civil War, and the development of the Conflict Thesis.

Key figures: Andrew Dickson White; James Frazer; George Sarton

Key publications:

Andrew Dickson White, "The Battle-Fields of Science" (1869), later expanded and published as *A History of the Warfare of Science with Theology in Christendom* (1896), 2 vols.

James Frazer, *The Golden Bough* (1890)

Read epigram by Nietzsche, p. 117.

What is the short version of the story you tell in this chapter?
Which historians are doing the most helpful work here?

"Aftermaths: At the Origins of the History of Science" (p. 140)
See Brooke quote, p. 142, on natural vs. supernatural.

Chapter 6: Warsongs: John William Draper and the Spreading of the Myth

Story: How publications popularized the myth.

Key figures: John Draper, Edward Youmans.

Key publications:

John Draper, *History of the Conflict Between Religion and Science* (1875)

Edward L. Youmans, *The International Scientific Series* (pp. 165ff)

Read Peter Harrison epigram, p. 149.

What is the short version of the story you tell in this chapter?
Which historians have been most helpful to you here?