

Origins in Science and Religion
Letters and Science 121
T-Th 2:00-3:30, 2040 VLSB
Spring 2013

This course explores the concepts of origins in science and religion and their cultural contexts and entanglements, from antiquity to the present. Popular culture tends to emphasize the conflict between science and religion on such issues, particularly, in recent times, with respect to the origin of life and its evolution (including human evolution). We hold that science must acknowledge history, both the history of the natural world and the history of concepts about it, and that religion must deal with the changing knowledge of science, including issues of origins, causation, and teleology. Our guiding questions include: What are origins, and why do we want to know about them? How does this desire manifest itself in different ways of constructing and analyzing knowledge? What sorts of intellectual processes, standards, and tests can be applied to different concepts of origins? What happens when different notions of origins clash? How do we negotiate these clashes in today's world?

Instructors

Professor Kevin Padian
Department of Integrative Biology
5099 VLSB, kpadian@berkeley.edu
office hours: W 11-12 and by appt.

Professor Ronald Hendel
Department of Near Eastern Studies
276 Barrows, hendel@berkeley.edu
office hours: Tu 11-12 and by appt.

GSIs

Dale Loepp, dalel@berkeley.edu
Nick Matzke, matzke@berkeley.edu
Yosefa Raz, yosefaraz@berkeley.edu

office hours: Th 3:30-4:30 and by appt.
office hours: Tu 3:30-4:30 and by appt.
office hours: Th 1-2 and by appt.

Course requirements

Participation (sections), 20%; two short papers (5 pgs), 20% each; Midterm exam, 20%;
Final exam, 20%

Required texts

Ronald Hendel, *The Book of Genesis: A Biography* (Princeton University Press, 2012)
Charles Darwin, *The Annotated Origin: A Facsimile of the First Edition of the First Edition*,
ed. James T. Costa (Harvard University Press, 2011) (paperback)¹
Other readings posted on class bSpace site

¹ Be sure to get this exact version; other editions will be useless.

Schedule and readings

Part I. Science, Religion, and Origins

Jan. 22 (T) Introduction: What do origins mean, and how should we study them?

Note: discussion sections will not meet in this first week

Jan. 24 (Th) Science and religion: Contradiction or complement?
Read: Gould, "Non-overlapping Magisteria," at http://www.stephenjaygould.org/library/gould_noma.html ;
Coyne, "Seeing and Believing"; Miller, *Finding Darwin's God*, pp. 214-259;
Collins, "Faith and the Human Genome"

Jan. 29 (T) The structure of science
Read: Kuhn, *The Structure of Scientific Revolutions*, ch. 2-3 (pp. 10-34); and
"How Science Works," at http://undsci.berkeley.edu/article/howscienceworks_01
and be sure that you read all 21 webpages in this section.

Jan. 31 (Th) The structure of religion
Read: Geertz, "Religion as a Cultural System"

Feb. 5 (T) The structure of secularism (Dale)
Read: Taylor, *A Secular Age* (excerpt)

Feb. 7 (Th) Atheism, agnosticism, theism: What's the difference and the difference it makes
Read: Onfray, *The Atheist Manifesto*, pp. 14-26; Dawkins, *The God Delusion*
(excerpt); Hitchens, *God is Not Great* (excerpt); Rosenbaum, "An Agnostic
Manifesto"; readings from Polkinghorne and/or Haught (to be uploaded)

Feb. 12 (T) Origins of the universe (Eliot Quataert)
Read: TBD

Feb. 14 (Th) Origins of life (Nick)
Read: Pross, *What is Life?* (excerpt)

Part II. History of the Present

Feb. 19 (T) Creation myths: How and what they mean

Read: *Enuma Elish*; Hesiod's *Theogony*, lines 104-233, 535-615, 807-885; and Hopi creation myth. Web texts at:
<http://www.etana.org/node/581>; <https://www.msu.edu/~tyrrell/theogon.pdf>;
http://www.indianlegend.com/hopi/hopi_001.htm

- Feb. 22 (Th) Cosmology in the Bible and the ancient Near East
Read: Genesis 1-3; Hendel, *Genesis*, pp. 15-44
- Feb. 26 (T) Theodicy: God and the problem of evil
Read: Job 1-11, 38-42; Ecclesiastes 1-12; and *Babylonian Theodicy* at
<http://www.etana.org/node/582>; **SHORT PAPERS DUE**
- Feb. 28 (Th) From myth to philosophy in ancient Greece
Read: Vernant, *Origins of Greek Thought* (excerpt)
- Mar. 5 (T) Natural philosophy in late antiquity and the middle ages
Read: Hendel, *Genesis*, pp.83-90, 146-156; Hannam, "Magic and Medicine"
- Mar. 7 (Th) The heresy of Galileo
Hendel, *Genesis*, pp. 156-166; Galileo, "Starry Messenger," pp. 1-5, 12-15; and "Letter to Duchess Christina," pp. 1-6. Web texts at
<http://people.rit.edu/wlrgsh/Galileo.pdf>
http://www.disf.org/en/documentation/03-Galileo_Cristina.asp
- Mar. 12 (T) New worlds and deep time
Read: Hendel, *Genesis*, pp. 176-182; Cutler, *The Seashell on the Mountaintop* (excerpt)
- Mar. 14 (Th) The rise of the Cultural Bible (Yosefa)
Hendel, *Genesis*, pp. 166-176; Sheehan, *The Enlightenment Bible*, ch. 5
- Mar. 19 (T) **Midterm exam**

Part III. Darwin's Shadow

- Mar 22 (Th) The origin of species
Read: Darwin, *Origin of Species*, chs. 1-4
- Apr. 2 (T) What Darwin said and didn't say
Read: Padian, "Darwin's Enduring Legacy" and "Ten Myths about Darwin"
- Apr. 4 (Th) Origins of humans and sexual selection
Read: Darwin, *Descent of Man*, Vol. II, Chapter 21, beginning on page 385 at

<http://darwin-online.org.uk/contents.html#descent>

- Apr. 9 (T) The descent of humans: Race, slavery, power
Read: Genesis 6-11; Hendel, *Genesis*, pp. 197-208
- Apr. 11 (Th) Origins of sex and gender
Read: Genesis 1-4, 18-19; Hendel, Kronfeld, and Pardes, "Gender and Sexuality"
- Apr. 16 (T) Ethics in evolution
Read: Darwin, *Descent of Man*, pp. 84-104; at
<http://darwin-online.org.uk/content/frameset?pageseq=171&itemID=F937.1&viewtype=side>
- Apr. 18 (Th) The rise of fundamentalism
Read: Hendel, *Genesis*, pp. 182-95; Bryan, "The Menace of Evolution" at
<http://law2.umkc.edu/faculty/projects/ftrials/scopes/bryanonevol.html>
- Apr. 23 (T) Intelligent design and "intelligent design"
Read: Padian and Matzke, "Darwin, Dover, 'Intelligent Design' and textbooks"
- Apr. 25 (Th) The missing link: How we know about evolutionary transitions
Read: Lebo, *The Devil in Dover* (excerpt)
- Apr. 30 (T) How we know about evolutionary transitions (part II)
Read: Padian Dover trial testimony at
www.sciohost.org/ncse/kvd/Padian/Padian_transcript.html
(begin reading after the first recess in the transcript)
- May 2 (Th) The end of the world: Apocalypse, extinction, or entropy?
Read: Hendel, *Genesis*, 63-82; **SHORT PAPERS DUE**

FINAL EXAM: Monday, May 13, 11:30-1:00