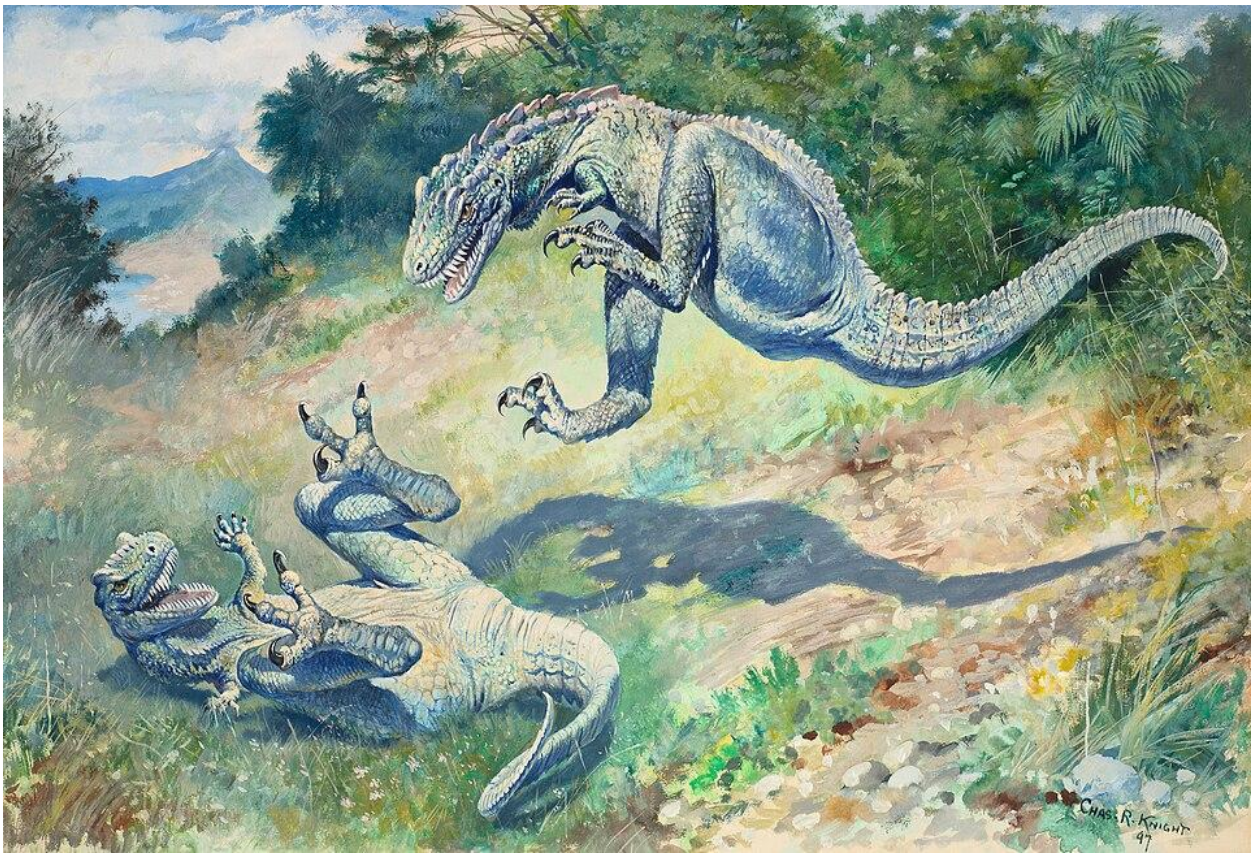
Jan Forsman, PhD

Philosophy of Dinosaurs



Course Description

What did the early modern philosophers think about dinosaur fossils? What do we actually know based on the fossil record? Is there such a thing as “Brontosaurus”? What even is a dinosaur and does the movie “Jurassic Park” have any of them? This course utilizes metaphysics, epistemology, and philosophy of science to introduce students to basic philosophical questions related to dinosaurs and the history of paleontology.

The teaching is conducted as lectures twice a week, with an emphasis on discussion. Students will read selected texts and excerpts for each lecture as background for the discussions.

Learning Objectives

My teaching mission is to create a safe and supportive environment for the students to increase their knowledge and become better both as academics and as human beings. The course is planned to increase the students’ knowledge on the major philosophical questions and issues related to

paleontological theories and the study of dinosaurs, and allow them to apply their knowledge to other fields of metaphysics, epistemology, and philosophy of science.

Materials

Various scientific and popularized texts, including classic texts and paleontological research.

Schedule

Week 1. Introduction to the course: why study the philosophy of dinosaurs?

(a; b)

Week 2. What is a dinosaur?

(a; b)

Reading: Robert Bakker: (1986) *The Dinosaur Heresies*, Zebra Books; Michael Crichton: (1990) *Jurassic Park*, Knopf.

Extra Reading: John Conway; C. M. Koseman & Darren Naish: (2012) *All Yesterdays: Unique and Speculative Views of Dinosaurs and Other Prehistoric Animals*, Irregular Books.

Week 3. Giants and Unicorns: Early history of fossils I

(a; b)

Reading: Robert Plot: (1677) *Natural History of Oxfordshire*; Adrienne Mayor: (2000) *The First Fossil Hunters*, Princeton University.

Extra Reading: Richard Brookes: (1763) *A New and Accurate System of Natural History*; Jan Forsman: (2023) "Weird Early History of Paleontology: Robert Plot and *Scrotum Humanum*," *Extinct*.

Week 4. Giants and Unicorns: Early history of fossils II

(a; b)

Reading: Leibniz: (1749) *Protogaea*; René Descartes: (1644) *Principles of Philosophy*

Miniessay 1

Week 5. Are you too cynical to believe in a miracle? Towards theory of evolution

(a; b)

Reading: David Hume: (1749) "Of Miracles", in *An Enquiry Concerning Human Understanding*; Mary Shepherd: (1827) "The Credibility of Miracles," in *Essays on the*

Perception of an External Universe

Extra Reading: Jeffrey K. McDonough: (2022) "Shepherd's *The Credibility of Miracles*," in *Saints, Heretics, and Atheists*, Oxford University Press.

Week 6. Big lizards in the backyard: Fossils in the 19th century I

(a; b)

Reading: Michael Taylor: (2024) *Impossible Monsters*, Liveright

Extra Reading: Diarmid Finnegan: (2024) *Darwinism's Generations: The Reception of Darwinian Evolution in Britain, 1859–1909*, Oxford University Press.

Week 7. Big lizards in the backyard: Fossils in the 19th century II

(a; b)

Reading: Christopher McGowan: (2001) *The Dragon Seekers*, Perseus Publishing

Week 8. Dinosaur by any other name: Taxonomy and the names of dinosaurs

(a; b)

Reading: Stephen J. Gould: (1991) "Bully for Brontosaurus" in *Bully for Brontosaurus*, Norton; Leonard Finkelman: (2015) "Brontosaurus and the Nature of Philosophy".

Extra Reading: Jan Forsman: (2015) "Night of the Brontosaurus"; Emanuel Tschopp; Octávio Mateis & Roger B.J. Benson: (2015) "A specimen level phylogenetic analysis and taxonomic revision of Diplodocidae (Dinosaura, Sauropoda)," *PeerJ* 3:e857.

Miniessay 2

Week 9. Ducks and Rabbits: What do fossils really tell us?

(a; b)

Reading: Derek Turner (2011): "A new way of seeing the fossil record" in *Paleontontology: A Philosophical Introduction*, Cambridge University Press; Darren Naish: (2020) "Stop saying that there are too many sauropod dinosaurs," *TetZoo*

Extra Reading: Brian J. Ford: (2019) *Too Big to Walk: The New Science of Dinosaurs*, William Collins

Week 10. So happy together? Dinosaurs and pack behavior

(a; b)

Reading: Brian Switek: *My Beloved Brontosaurus*, Scientific American/Farrar, 2013.

Week 11. You're hot then you're cold: Dinosaurs and thermoregulation

(a; b)

Reading: David Hone: *The Tyrannosaur Chronicles*, Bloomsbury, 2016.

Week 12. Jurassic Nark: Is cloning dinosaurs ethical?

(a; b)

Reading: Michael Crichton: (1990) *Jurassic Park*, Knopf; Michael Crichton (1995) *The Lost World*, Knopf.

Extra Reading: Leonard Finkelman (2016): "You call that a Velociraptor?" *Extinct*.

Miniessay 3

Week 13. Conclusion to the course and final discussions

(a; b)

Final Essay

Assignment

Final course grades will be assessed based on the students' performance in the following activities:

***Class participation and attendance (15%)*:** Regular and prompt attendance is not mandatory but is highly recommended. Since a substantial percentage of your grade will be based on class attendance and participation in discussion it is in your interest to attend every class and to arrive with significant contributions to the discussions. Participation in this class includes being prepared to join the discussion and give oral responses to questions on textual and visual materials.

***3 miniessays (15% each)*:** Each student will prepare three miniessays during the course (about 1–2 pages), describing their progress.

***Final essay (40%)*:** Each student will prepare a final essay at the end of the course (about 4–5 pages). You will receive grades and written feedback from the instructor on the essay.

Additionally, there will be a short quiz about the reading material on unspecified dates. These quizzes will not affect the final grading but are meant as a tool for the students to follow their own progress. For extra credit, students can either write a second essay or write a longer final essay. Discuss these options with the instructor.