BIG HISTORY AT BERKELEY

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Big History is an infant discipline that aims to explore all of the past as a unified subject. Berkeley is one of the few universities with a course in Big History. This approach has the potential to bring together faculty from an exceptionally wide range of departments across the entire campus, both for teaching and for research.

The name Big History was first used by David Christian, a specialist in Russian history, educated at Oxford, who has long taught in Australia. Christian conceived of a view of the past that begins at the Big Bang and extends seamlessly up to the present time. He organized a course on this topic by inviting colleagues from the relevant disciplines to give guest lectures, and worked hard to improve his own understanding of the astronomical, geological, and biological history that preceded human history. David Christian has presented his unified view of the past in “Maps of Time: an Introduction to Big History,” (University of California Press, 2004).

For some time I had been independently feeling my own way in this direction, and several years ago I came into contact with David Christian and with Fred Spier who teaches a pioneering Big History course at the University of Amsterdam. With their advice I developed a course at Berkeley that is now in its third iteration: Big History — Cosmos, Earth, Life, Humanity (Earth and Planetary Science C51 = Letters and Science C70X). As David Christian originally did, I have supplemented my own understanding of the component disciplines with some exceptional guest lecturers.

The Big History course consistently attracts the most interesting and dedicated classes of students I have taught in more than 30 years at Berkeley. The course is limited to 60 students to encourage extensive personal interaction. The students are from almost every major imaginable, and about equally distributed among the four undergraduate years. These are students who desperately want an overview that will tie together everything they are learning in specialized classes. They are the most exciting, rewarding, communicative students I have ever taught, and as I write this, in the 13th week of the semester, attendance has not fallen off at all. My experience matches that of the few other people who have developed courses in Big History — that this is a wonderful subject for an undergraduate course.

It remains to be seen whether Big History has the potential to develop into an interdisciplinary research field that will attract the interest and participation of top scholars and scientists. That will probably only happen if compelling, research-grade questions can be formulated. Such questions may deal, for example, with the relative roles of continuities and contingencies in history of all kinds, the evolution of complexity and of energy usage through the entire past, and the nature of the thresholds between the component historical regimes — Cosmos, Earth, life, and Humanity. With the unusual breadth and depth of its faculty, Berkeley may be the ideal place to formulate these questions and to begin to answer them.
Lecture topics for the Big History course at Berkeley (Spring 2009)

1. Case study #1: The Bronze age and the geology of copper in Cyprus
2. Big History — the intellectual approach and the chronology
3. Cosmos — The universe, and where the bronze came from
4. Cosmos — Seeing history, and how the Earth came to be
5. Cosmos — The Big Bang (Guest lecturer: Richard Muller, Physics)
6. A focus for Big History: From Spain to California
7. Time scales
8. First midterm exam
9. Case study #2: Geology and history in the Alps
10. Earth — Iberian explorers and how geology became a science
11. Earth — Earth cycles, from weather and rocks to supercontinents
12. Earth — Supercontinent cycle and climate cycles in the Sahara
13. Earth — Earth events (Ordovician impact storm), Earth-history diagrams
14. Controls on Big History: Natural laws, materials, energy
15. Case study #3: Extinction of the dinosaurs
16. Life — The history of early life
17. Life — The history of complex life
18. Life — Astrobiology and history (Guest lecturer: Jere Lipps, IB)
19. Drivers and results of history: Energy and the growth of complexity
20. Second midterm exam
21. Energy and the growth of complexity, continued
22. Case study #4: The volcanoes of Rome
23. Humanity — The evolution of human beings (Guest lecturer: Leslea Hlusko, IB)
24. Humanity — The evolution of language (Guest lecturer: Charles Faulhaber, Spanish)
25. Humanity — Time scales; Domestication of fire, animals, and plants
26. Humanity — Migrations and dispersal; exploration and reconnection
27. Humanity — Technology, science, industrial revolution, the modern world
28. Humanity — Bringing it down to people (Guest lecturer: Paula Fass, History)
29. Continuity, contingency, and free will in history, cooperation and competition
30. Conclusion: The prospects for Big History as a discipline
31. Final exam

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