

FRS161 – Histories of the Future

Prof. Erika Lorraine Milam

time: Mondays 7:30-10:20pm
room: Blair Hall T5emilam@princeton.edu
office: 135 Dickinson Hall
office phone: 609.258.0209
office hours: Tuesdays 9:30-11:30am

Image: D. Dixon, *Man After Man: An Anthropology of the Future* (New York: St. Martin's Press, 1990).

course description

The future is contested territory. What will happen one week? Where will the shoreline of the Atlantic Ocean be located in two hundred years? Will humanity even exist in three millennia—and if it does, will we still be us? Any attempt to answer questions like these requires identifying events or changes in the present and extrapolating their consequences into the unknowable future. In short, the future is unstable because we cannot agree on what is important about the present. In this seminar we use narratives about the future to explore the past, from the perspective of the history of science, in two ways. Most straightforwardly, futuristic narratives composed in the past century provide us with excellent clues to the cultural context in which authors' penned their accounts. We will thus use "the future" as a guide to the past. The means and methods by which scientists and science fiction authors have created their "futures" have also changed. Time itself has a history.

Our sources include scientists' reflections on the past and its connection to the future, speculative fiction written to explore events yet to come, and historical/theoretical writings that place these accounts of the future squarely in the cultural milieu in which they were written. Some of these stories function as utopian dreams or dystopian warnings about the future, in which authors hope the future can be altered through action in the present. In other more apocalyptic spectres, even the mere existence of the future cannot be relied upon—whether as a consequence of intervening natural, political, or supernatural events. We will use these readings to analyze how the concepts of time and history have changed, and to better understand the meanings we now invest in our own futures.

Readings

Most articles and chapters are available through the course Blackboard site. In addition, there are two books available at Labyrinth Books. Please purchase only the recommended editions of each book so that we can refer to specific pages in our discussions.

Aldous Huxley, *Brave New World* (New York: Harper Perennial Modern Classics, 2006 [1932]). ISBN 0060850523

Naomi Oreskes and Erik M. Conway, *The Collapse of Western Civilization: A View from the Future* (New York: Columbia University Press, 2014). ISBN 023116954X

We will also screen 2 films over the semester outside of our normal seminar time.

Assignments

Weekly discussions – Each week we will discuss the readings, which will average about 120 pages per week. Two of you will act as “experts” for each discussion. Over the course of the semester, everyone can expect to be an expert twice. We will figure out the schedule of who is responsible for each week on the first day of class.

Midterm paper – The midterm is an 8-10 page paper in which you select a historical source from before 1950 that discusses “the future.” For your paper, you will determine what key features of the author’s present he or she used to create the future, using those elements to analyze the author’s present concerns mapped extended into time. How does the author wrestle with questions of time? What future was s/he hoping to bring into being? The midterm paper is due before you leave for Fall Break. (You will be given a list of sources from which to choose for this assignment.)

Final paper – For the final 15-20 page paper, you will be asked to find and analyze a contemporary source that speculates about the future—either scientific or fictional. Using the skills you have honed over the course of the semester and in your midterm paper, you will then use this source to write an analysis of the present through the eyes of their futuristic vision. The choice of source is yours, but you must clear your idea with me before the end of week 9 (before leaving for Thanksgiving break).

Final presentation – You will also present your research to your classmates in an 8-minute talk before the end of the semester.

Grading

Discussion	30 %	Final Paper	25 %
Expert I, II	each 5 %	Final Presentation	15 %
Midterm paper	20 %		

Office Hours

My regular office hours are Tuesdays from 9:30-11:30 am, other options may also be available. Please sign up for an office appointment through my calendar on WASS:

https://wass.princeton.edu/pages/viewcalendar.page.php?makeapp=1&cal_id=1615.

You are required to meet with me in office hours once in the first three weeks of class.

Laptop Policy

Laptops are not allowed in seminar discussion; however, feel free to do your readings and bring to class an iPad, Kindle, or other tablet without a vertical screen. If you choose to read electronically, please take notes by hand so you can consult them easily during our discussions.

Final Caveat

Readings may change over the course of the semester. If that happens, I will alert everyone at least two weeks ahead of time on Blackboard and in class.



course schedule & readings

Week 1 – Sept. 19 – Futures Past [40 pp.]

Reinhart Koselleck, “Modernity and the Planes of Historicity,” in *Futures Past: On the Semantics of Historical Time*, translated by Keith Tribe (New York: Columbia University Press, 2004 [1985]), 9-25, notes 277-278.

James A. Secord, “Introduction,” in *Visions of Science: Books and Readers at the Dawn of the Victorian Age* (Oxford: Oxford University Press, 2014), 1-23.

Week 2 – Sept. 26 – Future as Myth [125 pp.]

J. A. Micheline, “Ta-Nehisi Coates in ‘Black Panther’ and Creating a Comic That Reflects the Black Experience,” *Vice* (5 April 2016): <http://www.vice.com/read/ta-nehisi-coates-talks-about-black-panther-and-writing-from-a-black-experience>

Samuel R. Delany and Dick Giordano, “Women’s Lib Issue,” *Wonder Woman* #203 (December 1972).

Mircea Eliade, “The Structure of Myths,” *Myth and Reality*, trans. Willard R. Trask (New York: Harper & Row, 1963), 1-20.

Ramzi Fawaz, “‘Where No X-Man Has Gone Before!’: Mutant Superheroes and the Cultural Politics of the Comic Book Space Opera,” in *The New Mutants: Superheroes and the Radical Imagination of American Comics* (New York: New York University Press, 2015), 125-163, notes 292-295, plates 11-16.

Jeffrey J. Kripal, “Mutation: X-Men Before Their Time,” in *Mutants and Mystics: Science Fiction, Superhero Comics, and the Paranormal* (Chicago: University of Chicago Press, 2011), 173-216, notes 346-348.

Jill Lepore, “Epilogue: Great Hera! I’m Back!” in *Secret History of Wonder Woman* (New York: Vintage, 2015), 283-297, notes 384-389, plates 15 and 16.



Week 3 – Oct. 3 – Futurity as Modernity**[125 pp.]**

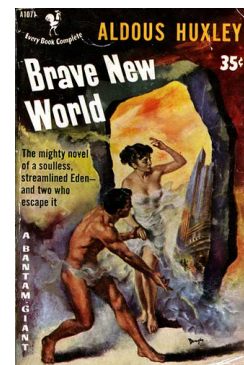
- Peter Galison, "Einstein's Clocks: The Place of Time," *Critical Inquiry* 26/3 (2000): 355-389.
- Roushan Jahan, ed. trans. "Rokeya Shekhawat Hossain: Sultana's Dream," in *Sultana's Dream: A Feminist Utopia and Selections from The Secluded Ones* (New York: The Feminist Press at CUNY, 1988), 7-18.
- Michelle Murphy, "Sultana's Dream," in *Histories of the Future* (2015), <http://histscifi.com/essays/murphy/sultanas-dream>.
- Yi-Fu Tuan, "Time in Experiential Space," in *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 118-135, notes 220-221.
- H. G. Wells, *The Discovery of the Future* (New York: B. W. Huebsch, 1913), 56 pp.

Week 4 – Oct. 10 – If Future : Modernity, then Past : Uncivilized**[124 pp.]**

- Geoffrey C. Bowker and Susan Leigh Star, "Introduction: 'To Classify is Human,' and 'Why Classifications Matter,'" in *Sorting Things Out: Classification and Its Consequences* (Cambridge, MA: MIT Press, 1999), 1-32 and 319-333.
- Edgar Rice Burroughs, "The White Ape," in *Tarzan of the Apes* (New York: A. L. Burt, 1914 [1912]), 55-66.
- Arthur Conan Doyle, "The most Wonderful Things have Happened," in *The Lost World* (New York: Hodder & Stoughton, 1912), 154-173.
- J. B. S. Haldane, "Is History a Fraud?" *Harper's Monthly Magazine* (1 September 1930), 470-478.
- Michael Robinson, "Tribes of the Imagination," in *The Lost White Tribe: Explorers, Scientists, and the Theory That Changed a Continent* (New York: Oxford University Press, 2016), 175-187, notes 272-273.
- Marianne Sommer, "History Within between Science and Fiction," in *History Within: The Science, Culture, and Politics of Bones, Organisms, and Molecules* (Chicago: University of Chicago Press, 2016), 112-133, notes 404-407.

Week 5 – Oct. 17 – Engineering Humanity**[MANY pages]**

- Aldous Huxley, *Brave New World* (New York: HarperCollins, 2006 [1932]).

**Week 6 – Oct. 24 – Predicting the Future****[118 pp.]**

- Katherine Anderson, "Prediction, Prophecy, and Scientific Culture," in *Predicting the Weather: Victorians and the Science of Meteorology* (Chicago: Univ. of Chicago Press, 2005): 15-40.
- Isaac Asimov, "The Psychohistorians" [1951] in *Foundation* (New York: Bantam, 2004), 1-40.
- James Blish, "Beep" [1954], in *The Ascent of Wonder: The Evolution of Hard Science Fiction*, eds. David Hartwell and Kathryn Cramer (New York: Orb Books, 1997), 254-277.
- Colin Milburn, "Ahead of Time: Gerald Feinberg, James Blish, and the Governance of Futurity," in *Histories of the Future* (2015): <http://histscifi.com/essays/milburn/time.html>.
- Michael Saler, "Introduction," in *As If: Modern Enchantment and the Literary Prehistory of Virtual Reality* (Oxford: Oxford University Press, 2012), 3-23, notes 203-213.
- Joel A. Snow, "Taking Thoughts for the Morrow," *Science* 164/3877 (1969): 285-286.

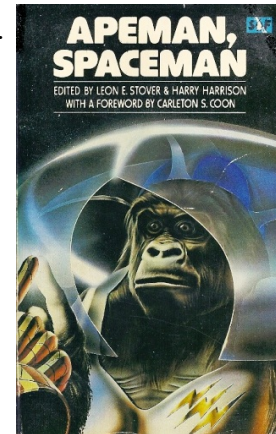
Midterm Paper due Friday, October 28 by 5pm

FALL BREAK

Week 7 – Nov. 7 – Ascent of Man

[99 pp.]

- Jacob Bronowski, “Lower than the Angels,” in *The Ascent of Man* (Boston: Little, Brown and Company, 1973), 19-56.
- Maurizio Esposito, “Utopianism in the British Evolutionary Synthesis,” *Studies in the History and Philosophy of Biological and Biomedical Sciences* 42 (2011): 40-49.
- Julian Huxley, “The Future of Man—Evolutionary Aspects,” in *Man and His Future: A CIBA Foundation Volume*, ed. Gordon Wolstenholme (Boston: Little, Brown and Company, 1963), 1-22.
- Reinhart Koselleck, “Perspective and Temporality: A Contribution to the Historiographical Exposure of the Historical World,” in *Futures Past: On the Semantics of Historical Time*, trans. Keith Tribe (NY: Columbia University Press, 2004), 128-151, notes 293-295.
- Charles Osgood, “The Future of Man,” in *An Alternative to War or Surrender* (Urbana: University of Illinois Press, 1962), 1-17.
- Bertrand Russell, “The Future of Man,” *The Atlantic* (March 1951): 48-51.



Week 8 – Nov. 14 – Astrobiological Imagination

[113 pp.]

- Theodosius Dobzhansky, “Darwinian Evolution and the Problem of Extraterrestrial Life,” *Perspectives in Biology and Medicine* 15/2 (1972): 157-176.
- Harry Harrison and Leon E. Stover, eds. “Unfinished Evolution” and “Afterword,” in *Apeman, Spaceman* (Penguin, 1972 [1968]), 125-154 and 330-351.
- George Gaylord Simpson, “The Nonprevalence of Humanoids,” *Science* 143 (1964): 769-775.
- Sarah J. Montross, “Cosmic Orbits: Observing Postwar Art of the Americas from Outer Space,” in *Past Futures: Science Fiction, Space Travel, and Postwar Art of the Americas* (Cambridge, MA: MIT Press for Bowdoin College Museum of Art, 2015), 14-47.



FILM SCREENING:

- Option A** – Christopher Nolan, dir. *Interstellar* (Paramount, 2014), 169 min.
- Option B** – Robert Zemeckis, dir. *Contact* (Warner Brothers, 1997), 150 min.
- Option C** – Stanley Kubrick, dir. *2001: A Space Odyssey* (Metro-Goldwyn-Mayer, 1968), 161 min.

Week 9 – Nov. 21 – Groovy Prophets

[116 pp.]

- Peder Anker, “The Ecological Colonization of Space,” *Environmental History* 10/2 (2005): 239-268.
- Michael Gordin, “The Unseasonable Grooviness of Immanuel Velikovsky,” in *Groovy Science: Knowledge, Innovation, and American Counterculture* (Chicago: University of Chicago Press, 2016), 207-237.
- David Kaiser, “Zen and the Art of Textbook Publishing,” in *How the Hippies Saved Physics* (NY: W. W. Norton & Co., 2011), 149-166, notes 303-305.
- Patrick McCray, “Omnificent,” in *The Visioneers: How a Group of Elite Scientists Pursued Space Colonies, Nanotechnologies, and a Limitless Future* (Princeton: Princeton University Press, 2013), 113-145, notes 296-302.
- Gerald K. O’Neill and Ginie Reynolds, “Habitats in Space,” *Science Teacher* 44/6 (1977): 22-26.

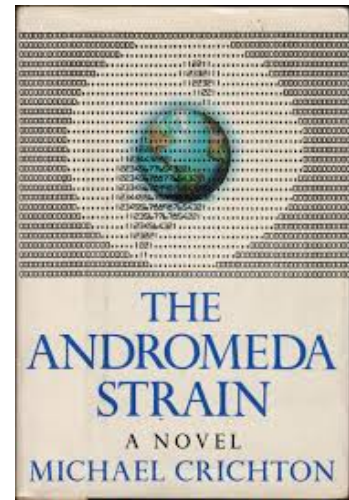
Topics and Sources for Final Paper due Tuesday, November 22 by 5pm

Thanksgiving

Week 10 – Nov. 28 – Apocalypse

[109 pp.]

- Michael Crichton, *Andromeda Strain* (NY: Knopf, 1980 [1969]), 1, 70-88, references 292-295.
- Rob Goodman, “The Comforts of the Apocalypse,” *Chronicle of Higher Education* (19 August 2013), 6pp.
<http://chronicle.com/article/The-Comforts-of-the-Apocalypse/141117/>
- Maryn McKenna, “The Enemy Within,” *Scientific American* (April 2011): 47-53.
- Matthew Sutton, “Apocalypse Now,” in *American Apocalypse: A History of Modern Evangelicalism* (Cambridge, MA: Harvard University Press, 2013), 326-366, notes 430-434.
- Tsutomu Watanabe, “Infectious Drug Resistance,” *Scientific American* (December 1967): 19-27.
- Daniel Wojcik, “Signs of the Apocalypse: Hal Lindsey and Dispensationalist Prophecy Beliefs,” in *The End of the World as We Know It: Faith, Fatalism, and Apocalypse in America* (NY: New York University, 1997), 37-59.



Week 11 – Dec. 5 – Class Presentations of Research Projects

FILM SCREENING:

Peter Galison & Robb Moss, directors,
Containment (Film Sprout, 2015), 83 min.

Read more at: containmentmovie.com

December 7: time and location TBD.



Week 12 – Dec. 12 – Environmental Collapse or Redemption?

[114 pp.]

Science and Security Board, “2016 Doomsday Clock Statement,” *Bulletin of the Atomic Scientists*
<http://thebulletin.org/sites/default/files/2016%20doomsday%20clock%20statement%20-%20final%5B5%5D.pdf>

Wanuri Kahui, dir. *Pumzi* (Inspired Minority Pictures and One Films, 2009), 22 min:
<https://vimeo.com/46891859>.

Elizabeth Kolbert, “Recall of the Wild: The Quest to Engineer a World Before Humans,” *New Yorker* (24 and 31 December 2012): 50-60.
<http://www.newyorker.com/magazine/2012/12/24/recall-of-the-wild>.

Naomi Oreskes and Erik M. Conway, *The Collapse of Western Civilization: A View from the Future* (New York: Columbia University Press, 2014), 89 pp.

Erik Stokstad, “Bringing Back the Aurochs,” *Science* 350/6265 (2015): 1144-1147.

OPTIONAL: Ungraded paper drafts due by the end of class: December 16. I am willing to read whatever you’ve come up with by the end of the semester and give you feedback.

Final Papers due on Dean’s Date: January 17

Department of History Grading Practices

Class Participation

A student who receives an **A** for participation in discussion in precepts or seminars typically comes to every class with questions about the readings in mind. An 'A' discussant engages others about ideas, respects the opinions of others, and consistently elevates the level of discussion.

A student who receives a **B** for participation in discussion in precepts or seminars typically does not always come to class with questions about the readings in mind. A 'B' discussant waits passively for others to raise interesting issues. Some discussants in this category, while courteous and articulate, do not adequately listen to other participants or relate their comments to the direction of the conversation.

A student who receives a **C** for discussion in precepts or seminars attends regularly but typically is an infrequent or unwilling participant in discussion.

A student who fails to attend precepts regularly or to adequately prepare for discussion risks the grade of **D** or **F**.

Class Papers

An **A** or **A-** thesis, paper, or exam is one that is good enough to be read aloud in a class. It is clearly written and well-organized. It demonstrates that the writer has conducted a close and critical reading of texts, grappled with the issues raised in the course, synthesized the readings, discussions, and lectures, and formulated a perceptive, compelling, independent argument. The argument shows intellectual originality and creativity, is sensitive to historical context, is supported by a well-chosen variety of specific examples, and, in the case of a research paper, is built on a critical reading of primary material.

A **B+** or **B** thesis, paper, or exam demonstrates many aspects of A-level work but falls short of it in either the organization and clarity of its writing, the formulation and presentation of its argument, or the quality of research. Some papers or exams in this category are solid works containing flashes of insight into many of the issues raised in the course. Others give evidence of independent thought, but the argument is not presented clearly or convincingly.

A **B-** thesis, paper, or exam demonstrates a command of course or research material and understanding of historical context but provides a less than thorough defense of the writer's independent argument because of weaknesses in writing, argument, organization, or use of evidence.

A **C+**, **C**, or **C-** thesis, paper, or exam offers little more than a mere a summary of ideas and information covered in the course, is insensitive to historical context, does not respond to the assignment adequately, suffers from frequent factual errors, unclear writing, poor organization, or inadequate primary research, or presents some combination of these problems.

Whereas the grading standards for written work between A and C- are concerned with the presentation of argument and evidence, a paper or exam that belongs to the D or F categories demonstrates inadequate command of course material.

A **D** thesis, paper, or exam demonstrates serious deficiencies or severe flaws in the student's command of course or research material.

An **F** thesis, paper, or exam demonstrates no competence in the course or research materials. It indicates a student's neglect or lack of effort in the course.