

The Anthropology of Outer Space

Professor Lisa Messeri

Spring 2019

MW 2:30-3:45

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Course Description

What do you see when you look up at the night sky? Some see the future of humankind; others see an empty void. There are those who see the homes of gods while others are certain of extraterrestrials. In this class, we will explore how outer space, at different times and for different people, acts as a mirror that reflects back aspirations and anxieties of those studying and pondering the universe. By studying outer space we will in fact be studying ourselves.

We will spend the semester discussing, writing, and thinking about outer space like anthropologists. We will learn how to produce sophisticated cultural readings of the cosmos and find the value of thinking in multiple ways (scientifically, socially, philosophically, etc.) about outer space, appreciating how no single way of understanding is the one "right" way.

To tackle this adventuresome endeavor (boldly going where few have gone before), we will use ideas in anthropology and aligned disciplines to examine the extraterrestrial. Our challenge is to read social science texts alongside scientific, popular, and fictional accounts of space science and exploration. This journey will open our eyes to how cultural ideas infuse science and technology, adding richness to the study of both social and scientific phenomena.

Learning Objectives

This class will challenge you to think in new ways about something that you have spent your whole life gazing up at. By semester's end, you will be able to

- Describe the human understanding of the universe as a physical-and-imagined space that changes through time and from person to person.
- Explain the basic categories anthropologists use to think about the world.
- Connect anthropological thinking to the study of scientific and technical concepts.
- Critically analyze scientific writing, news stories, fiction, and other media in order to tease out how social concepts shape understandings of outer space.
- Respect diverse ways, both scientific and non-scientific, of knowing the cosmos.
- Recognize that science reflects and saturates our social worlds.

Assessments

More details on these assignments will be provided in separate write-ups.

Reading Reactions x 4 (25%)

For each of the four units, you will choose one session (sign up in advance) to write a reflective essay on that day's readings. These essays are not summaries, but rather you will construct a mini-argument based on your reaction to the readings.

500-600 words

Mid-Term Ethnographic Essay: Observing at the Observatory (25%)

Not only is anthropology about closely observing texts, it is also about observing people in real, physical places. Head over to Yale's Leitner Family Observatory and Planetarium for a public viewing night with a mission of observing the observers. While at the observatory, take notes on what you see and hear, focusing especially on the other visitors and the people working there. Talk to at least one stranger (anthropology is hard!) and ask them why they came to this event and solicit their views of outer space (ask any questions you think might get at a meaningful response). Write up your observations in a reflective piece.

1,000-1,250 words

Due March 1

Final Project – Curating a Martian Museum of the Future (40%)

This is where it all comes together: the critical analysis cultivated in the reading reactions, the close attention you brought to the observatory, and the thematic explorations of class discussion. You will apply all of these skills to curate an exhibit for a museum on Mars. There will be both group and individual components to this assignment. Though creative, it will also require engaging with the same analytic rigor expected in a more traditional final research paper.

Proposal, due April 19

Installation of artifact and accompanying curatorial notes, TBD

Final Reflection, due exam week

Participation (10%)

Participation is vital to the success and fun of this class. Offering your thoughts and attentive listening to and responding to your classmates are key to productive conversations. I expect you to attend every session. If you know you will be absent please let me know ahead of time. Likewise, if you are sick please just send me a short email, no need to go into detail.

I prefer the classroom to be a laptop-free zone. However, sometimes, laptops or tablets are the best way to access readings and notes. If you choose to bring a laptop to class please turn off wireless. I would also invite you to take notes by hand. This has been proven to be a more effective way of retaining information. The many studies of laptop use in classrooms, all showing negative effects, was summarized in this New Yorker article written by a CS professor at Dartmouth (<http://www.newyorker.com/tech/elements/the-case-for-banning-laptops-in-the-classroom>).

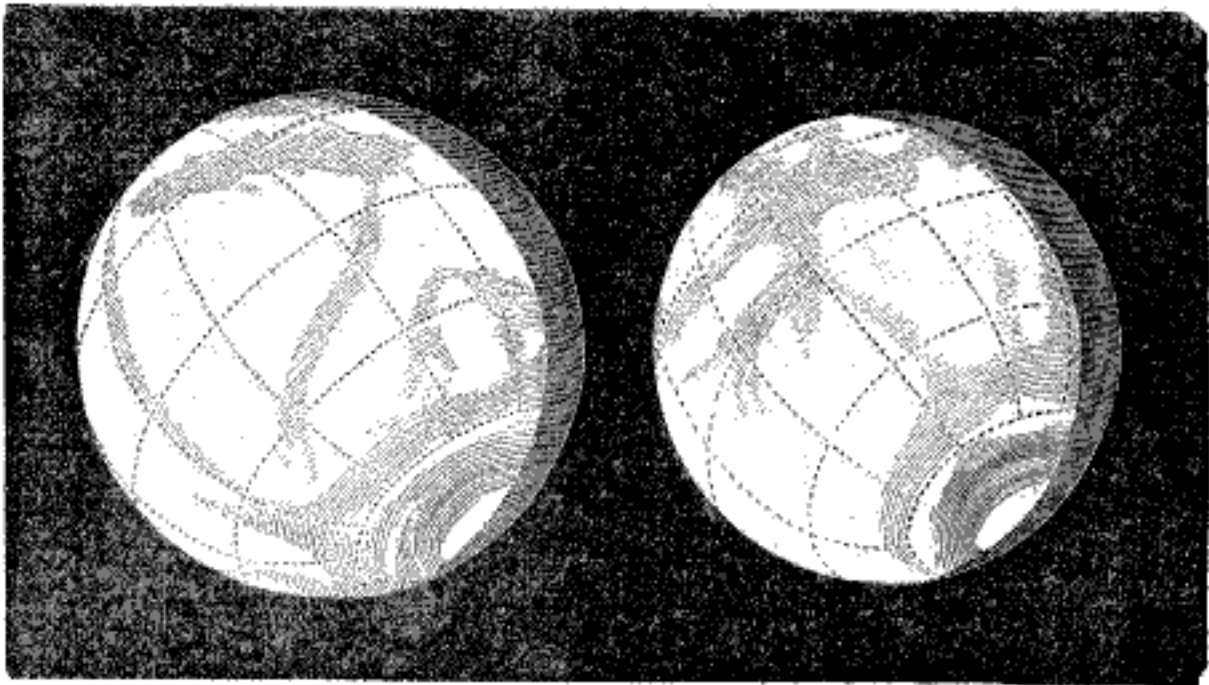
I want you to be present in class. Think about what you need to do to achieve that goal.

Grading

Each assignment will be graded out of 100 points:

- 93-100 A
- 90-92 A-
- 87-89 B+
- 83-86 B
- 80-82 B-
- etc...

A weighted average will be taken to determine your final grade.



Course Schedule

Unit 1: Culture and Cosmos, or What does anthropology have to do with outer space?

Monday, January 14 – Welcome!

No reading.

Wednesday, January 16 – Understanding Culture

Geertz, Clifford. 1973. "Thick Description: Toward an Interpretive Theory of Culture," in *The Interpretation of Cultures*. New York: Basic Books, pp. 3-30.

Sewell, Jr., William H., 1999. "The Concept(s) of Culture," in *Beyond the Cultural Turn*, edited by Victoria E. Bonnell and Lynn Hunt. Berkeley: University of California Press, pp. 35-61.

Sagan, Carl. 1997. "Aberrations of Light." In *Pale Blue Dot: A Vision of the Human Future in Space*, pp. 8-19

Friday, January 18 – Strange Rituals and Familiar Planets

Malinowski, Bronislaw. 1922. "The Subject, Method, and Scope of this Inquiry," in *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea*. New York: Dutton, pp. 1-25.

Miner, Horace. 1956. "Body Ritual Among the Nacirema." *American Anthropologist*. 58(3): 503-507

Sagan, Carl. 1997. "You Are Here." In *Pale Blue Dot: A Vision of the Human Future in Space*, pp. 1-7

Wednesday, January 23 – Myth and Non-Western Cosmologies

Joseph Campbell, Joseph and Bill Moyers. 1991. "Myth and the Modern World." In *The Power of Myth*, pp. 1-43

Young, M. Jane. 1987. "'Pity the Indians of Outer Space': Native American Views of the Space Program." *Western Folklore* 46(4): 269-279.

Monday, January 28 – Identity I: Space. Race.

Visweswera, Kamala. 1998. "Race and the Culture of Anthropology." *American Anthropologist* 100(1): 70-83.

Väättänen, Päivi. 2009. "Sun Ra: Myth, Science, and Science Fiction." *Fafnir: Nordic Journal of Science Fiction and Fantasy Research*. 1(4): 39-49.

La Ferla, Ruth. 2016. "Afrofuturism: The Next Generation." *New York Times*.

https://www.nytimes.com/2016/12/12/fashion/afrofuturism-the-next-generation.html?_r=1

Wednesday, January 30 – Identity II: Gender and Outer Space's Glass Ceiling

Ortner, Sherry. 1974. "Is male is to female as culture is to nature?" In Michelle Zimbalist Rosaldo and Louise Lamphere, eds. *Women, Culture, and Society*. Stanford, CA: Stanford University Press, pp. 67-87.

Maher, Neil. 2017. "Heavenly Bodies: 'Manned Spaceflight' and the Women's Movement." In *Apollo in the Age of Aquarius*. Cambridge, MA: Harvard University Press, pp. 137-182.

Unit 2: Old and New Space, or How does the exploration of other worlds change how we see our own world?

Monday, February 4 – Nationalism and the Space Race

Benedict Anderson. 1983. "Introduction." In *Imagined Communities*. New York: Verso, pp. 1-7.

Siddiqi, Asif. 2010. "Competing Technologies, National(ist) Narratives, and Universal Claims: Toward a Global History of Space Exploration." *Technology and Culture* 51(2): 425-443.

Wednesday, February 6 – Globalization and Seeing the Earth from Space

Crook, Tony. 2018 "Earthrise +50: Apollo 8, Mead, Gore and Gaia." *Anthropology Today* 34 (6): 7-10.

Oliver, Kelly. 2015. "The Big Picture: Philosophy after the Apollo Missions." In *Earth & World: Philosophy after the Apollo Missions*. New York: Columbia University Press, pp. 1-44.

Monday, February 11 – Exploration and Empire Beyond the Moon I: The New Space Industry

Tutton, Richard. 2018. "Multiplanetary Imaginaries and Utopia: The Case of Mars One." *Science, Technology, and Human Values* 43(3): 518-539.

Zubrin, Robert. 1994. "Significance of the Martian Frontier." <http://www.nss.org/settlement/mars/zubrin-frontier.html>

Messeri, Lisa. 2017. "We Need to Stop Talking About Space as a Frontier." *Slate*

http://www.slate.com/articles/technology/future_tense/2017/03/why_we_need_to_stop_talking_about_space_as_a_frontier.html

Wednesday, February 13 – Exploration and Empire Beyond the Moon II: Scientific Exploration

Dittmer, Jason. 2007. "Colonialism and Place Creation in Mars Pathfinder Media Coverage." *Geographical Review* 97(1): 112-130.

Vertesi, Janet. 2015. "'Surviving Politically' and the Martian Picturesque." In *Seeing Like a Rover: How Robots, Teams, and Images Craft Knowledge of Mars*. Chicago: University of Chicago Press, 215-238.

Monday, February 18 – Provincializing NASA

Klinger, Julie. 2018. "A Brief History of Outer Space Cooperation Between Latin America and China." *Journal of Latin American Geography* 17(2): 46-83.

Serpell, Namwali. 2017. "The Zambian 'Afronaut' Who Wanted to Join the Space Race." *The New Yorker*.

<http://www.newyorker.com/culture/culture-desk/the-zambian-afronaut-who-wanted-to-join-the-space-race>

Wednesday, February 20 – Exoplanet Astronomy and Postnationalism?

Messeri, Lisa. "Inhabiting Other Earths." In *Placing Outer Space: An Earthly Ethnography of Other Worlds*. Durham: Duke University Press, pp. 149-187.

"Scientific and Philosophical Implications of Detecting Other Earths" pg. 3-5.

Unit 3: Outer Space and Human "Nature", or What does space tell us about what it means to be human?

Monday, February 25 – Why We Explore Space and the Question of Human Nature

Geertz, Clifford. 1973. "The Impact of the Concept of Culture on the Concept of Man." In *The Interpretation of Cultures*. New York: Basic Books, pp. 33-54.

Arendt, Hannah. 1963. "The Conquest of Space and the Stature of Man." Reprinted in *The New Atlantis*.

<http://www.thenewatlantis.com/publications/the-conquest-of-space-and-the-stature-of-man>

Wednesday, February 27 – Wonder and Fear

Listen to *Radiolab*, Space, Season 2 Episode 5

Markley, Robert. "Wells's *War of the Worlds*: Apocalyptic Disintegration," and "*The War of the Worlds* and the Panic of 1938." In *Dying Planet*. Durham: Duke University Press, pp. 122-127, 203-208

Wells, H.G., *War of the Worlds*, Chp. 1, 4, 5

Monday, March 4 – Space and the Body

Olson, Valerie. 2018. "Connection: The Ecobiopolitics of Space Medicine" in *Into the Extreme: US Environmental Systems and Politics Beyond Earth*. Minneapolis: University of Minnesota Press.

Thomas, Jamie. 2019. "The Year is 2093: Reanimation from *Frankenstein* to *Prometheus* as Sci-fi Metaphor for (Dis)Embodied Female Futures and Colonization of Space."

Wednesday, March 6 – Space and the Senses

Helmreich, Stefan. 2016. "Gravity's Reverb: Listening to Space-Time, or Articulating the Sounds of Gravitational-Wave Detection." *Cultural Anthropology* <https://culanth.org/articles/849-gravity-s-reverb-listening-to-space-time-or>

Garber, Megan. 2012. "What Space Smells Like." *The Atlantic*.

<https://www.theatlantic.com/technology/archive/2012/07/what-space-smells-like/259903/>

Unit 4: Speculative Imaginations of Others and Selves, or What is the meaning of life beyond Earth?

Monday, March 25 – The Concept of the Other

Backe, Emma. 2015. "Aliens Among Us." Posted on *The Geek Anthropologist*.

<https://thegeekanthropologist.com/2015/03/20/extraterrestrial-anthropology/>

Collins, Samuel. 2008 "Close Encounters of the Anthropological Kind." In *All Tomorrow's Cultures: Anthropological Engagements with the Future*. New York: Berghahn Books, pp. 63-74.

Wednesday, March 27 – Encountering the Alien

Lepselter, Susan. 2016. "Vulnerabilities" "Secret Immobilities and the Poetics of the Uncanny" "Coda: One More Thing" in *Resonance of Unseen Things*. Ann Arbor: University of Michigan Press, pp. 1-45, 161-162.

Monday, April 1 – Language, Culture, and Meaning

Watch, *Arrival*

Duranti, Alessandro. "Linguistic Anthropology: Language as a non-neutral medium." In *The Cambridge Handbook of Sociolinguistics*. Ed. Raj Mesthrie.

Wednesday, April 3 – Cultural Relativism and Earth as Alien

Helmreich, Stefan. 2012. "Extraterrestrial Relativism." *Anthropological Quarterly* 85(4): 1125-1140.

Course Conclusion – Imagining Anthropologically Informed Space Futures

Monday, April 8 - World Building I

Anderson, Ross. 2013. "Exodus." *Aeon*. <https://aeon.co/essays/elon-musk-puts-his-case-for-a-multi-planet-civilisation>

Russell, Andrew and Lee Vinsel. 2016. "Whitey on Mars." *Aeon*. <https://aeon.co/essays/is-a-mission-to-mars-morally-defensible-given-todays-real-needs>

Wednesday, April 10 – World Building II

[[Review anthropological themes of the semester?]]

Monday, April 15 – Imagining a Museum on Mars

Gorman, Alice. 2018. "A sports car and a glitter ball are in space - What does that say about us as humans?" *The Conversation*. <http://theconversation.com/a-sports-car-and-a-glitter-ball-are-now-in-space-what-does-that-say-about-us-as-humans-91156>

Wednesday, April 17 - TBD

Curators come to class [presentation and discussion]

Monday, April 22 – TBD

Workshop in Peabody [curators following up with Apple for room reservation for David Friend hall]

Wednesday, April 24 – Conclusion: Communicating Culture

Wright, Jason and Michael Oman-Reagan. 2018 "Visions of Human Futures in Space and SETI." *International Journal of Astrobiology* 17(2): 177-188.

Possibly April 26 for museum?