

Nanyang Technological University
History Division, School of Humanities, Semester 1, 2020-21
HH3042: Climate and Society in Historical Perspective

Instructor: Asst. Prof. Faizah Zakaria (SoH, #05-05)
Class Time: Wednesdays, 9.30 am to 12.30 pm

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Course Overview

This seminar covers major traditions of thought regarding climate, climate change and its impact on society, drawing on history, science and anthropology. In this course, we ask:

- How does knowledge about the earth's climate evolve? How does such knowledge circulate, change and become entangled with political ecology?
- In what ways do societies, past and present, interpret weather events and climatic perturbations?
- How do differences in climate shape or inform societal organization?
- How do different societies cope with extreme climatic events? How do they reflect, reveal, and reproduce socio-economic structures such as inequality?

The course is divided into three parts. The first, "Reconstructing the Climate" concerns the epistemologies that we use to understand the climate, their strengths and limitations as well as how climate knowledge influences state-society organization. In the second part, "Climate Perturbations in Human History," we analyse various interpretations of how climate has historically influenced past currents of societal change, including theories of environmental determinism and collapse. The final part of this course, "Contemporary Climate Change" invites us to examine and critique present approaches to climate policies, using case studies from past climate-induced events and paying particular attention to the notions of risk and resilience.

Course Structure: E-learning

The course will be conducted in a three-hour weekly seminar. Due to the NTU guidelines on Covid-19, all the seminars will be conducted online on Zoom, every Wednesday, 9.30 am to 12.30 pm. Each seminar will comprise of a short lecture, after which students will break out into discussion rooms to discuss the sessions readings. After discussions, we will reconvene for student presentations and Q&A.

While we are unlikely to be able to meet in person as a group, it is probable that we can meet in small groups on campus from October onwards. I will then be able to hold consultation sessions for students who would like to meet me in person.

Course assessment

The assessment components in this course aim to build up your analytical skills in reading and writing, with a view towards unpacking arguments in public discussion, discerning between reliable and unreliable sources of information and

1. **Assessment Component 1:** Participation (15%)
Deadline: Continuous

In class, you will learn from each other and build up your skills in close reading, constructing convincing arguments and articulating these arguments verbally. You are expected to regularly attend class but attendance alone will not give you participation points. Participation in class will be rewarded for the depth, frequency and quality of your contributions to classroom discussion in each weekly seminar.

2. **Assessment Component 2:** Class Presentation (20%)

Deadline: Weekly rotation

From Weeks 2-13, each student will be assigned a reading and to present on that reading for the week. The presentation should comprise of a synthesis of its major arguments, an evaluation of the sources used to make them and the presenters' view of the article. This component aims to help you learn from each other about different ways of approaching the readings and gives you an opportunity to sharpen your public presentation skills.

3. **Assessment Component 3:** Film analysis (20%)

Deadline: Week 8

You will be required to select and view one of the films assigned in this course (see below) and write a review for the film that you viewed. A film review is a useful exercise in which you will synthesize the main arguments presented in a film, analyse the imagery and visual evidence presented in the film and evaluate its effectiveness. A sample review will be provided to you as guidance. The films assigned are available on Netflix. Throughout the semester, I will be holding viewing 'parties' online for students without Netflix access. You may also choose other films subject to the instructor's approval.

- (a) Anthropocene: The Human Epoch
- (b) Chasing Coral
- (c) Okja
- (d) Cowspiracy

4. **Assessment Component 4:** Quiz (20%)

Deadline: Week 13

A 1.5 hour take-home quiz during our final week, covering all the key concepts in the readings through MCQs, short response questions and a short essay.

5. **Assessment Component 5:** Poster on Singapore's Climate Action Plan (25%)

Deadline: Reading Week

You will each be given a report on Singapore's Climate Action Plan. Using research from media reports, press statements and publicly available ministry reports about Singapore's environmental challenges, you will analyse the plan's strengths and vulnerabilities, drawing appropriate comparisons with other case studies covered in the course and citing the appropriate literature. Design a research poster, presenting your findings through graphics.

Schedule and Readings

(A) (Re)constructing the Climate

Week 1: Aug 12, 2020

Introduction: Continuities and Change in ‘Climate Theory’

1. Chakrabarty D. 2009. “The Climate of History: Four Theses.” *Critical Inquiry* 35: 197-222.
2. Ruddiman, W. F. 2013. “The Anthropocene.” *Annual Review of Earth and Planetary Sciences* 41: 45-68.
3. Hulme, M. 2015. “Climate And Its Changes: A Cultural Appraisal” *Geography and Environment* 2, 1-11.

Week 2: Aug 19, 2020

Early Religious Traditions of Climate Thought

1. Ibn Khaldûn. 1958. “The Muqaddimah: An Introduction to History.” In: Dove M.R. ed. 2014. *The Anthropology of Climate Change: A Historical Reader*. (Malden, MA: Wiley/Blackwell), 55-66.
2. Elvin M. 1998. “Who Was Responsible for the Weather? Moral Meteorology in Late Imperial China.” *Osiris*, 13:2, 213-237.
3. Glacken C. 1976. *Traces of the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*. (Berkeley: University of California Press). Chapter 7 on “Interpreting Piety and Activity, and their Effects on Nature.”

Optional

4. McIntosh R. 2015. “Climate Shock and Awe: Can There Be an “Ethno-Science” of Deep-Time Mande Palaeoclimate Memory?” In: Barnes J. and Dove M.R., eds. 2015. *Climate Cultures: Anthropological Perspectives on Climate Change*. (New Haven: Yale University Press), 273-288.

Week 3: Aug 26, 2020

“Folk” Knowledge of the Climate

1. Rudiak-Gould, P. 2013. ““We Have Seen It with Our Own Eyes”: Why We Disagree about Climate Change.” *Visibility. Weather, Climate, and Society*. 5(2): 120-132.
2. Orlove B., Chiang J.C.H., and Crane M.A. 2002. “Ethnoclimatology in the Andes.” *American Scientist*. 90: 428-435
3. Dyt K. ““Calling for Wind and Rain’ Rituals: Environment, Emotion and Governance in Nguyen Vietnam, 1802-1883.” *Journal of Vietnamese Studies* 10(2): 1-42.

Optional

4. Garay-Barayazarra G., & Puri R. K. 2011. “Smelling the monsoon: Senses and traditional weather forecasting knowledge among the Kenyah Badeng farmers of Sarawak, Malaysia.” *Indian Journal of Traditional Knowledge* 10(1): 21-30.

Week 4: Sep 2, 2020

The Expert View

1. Harper, K. 2017. *Make it Rain: State Control of the Atmosphere in Twentieth Century America*. (Chicago, IL: University of Chicago Press). Ch 2 on “Weather in an Icebox: Scientific Weather Control” and Ch 4 on “State Governments: Averting Weather Wars,” 49-86 and 109-28.
2. Amrith S. 2018. *Unruly Waters: How Rains, Rivers, Coasts and Seas Have Shaped Asia's History*. (London: Basic Books). Ch 1 on “The Shape of Modern Asia” and Ch 4 on “The Aqueous Atmosphere,” 1-16 and 91-113.

Class Film Viewing: “Lost World,” <https://emergencemagazine.org/story/lost-world/>

(B) Climate Perturbations in Human History

Week 5: Sep 9, 2020

Environmental Determinism

1. Diamond J. 1997. *Guns, Germs, and Steel: The Fates of Human Societies* (New York: WW Norton & Company). Ch 1 on “Yali’s Question,” 13-32. (Available in NTU Library e-book)
2. Correia D. 2013. “F** k Jared Diamond.” *Capitalism Nature Socialism*, 24(4):1-6.
3. Lieberman V. and Buckley B., "The Impact of Climate on Southeast Asia circa 950-1820" in *Modern Asian Studies* 46(5): 1049-1096.

Optional

4. Wood, Gillen D’Arcy. 2014. *Tambora: The Eruption that Changed the World*. (Princeton: Princeton University Press). Ch 9 on “Hard Times at Monticello,” 199-228.

Week 6: Sep 16, 2020

Collapse?

1. Diamond J. 2005. *Collapse: How Societies Choose to Fail or Succeed*, (New York: Viking). Ch 8 on “Norse Greenland’s End” 248-276. (E-book)
2. Berglund J. 2010. “Did the Medieval Norse Society in Greenland Really Fail?” In McAnany P.A. and Yoffee N. eds., *Questioning Collapse: Human Resilience, Ecological Vulnerability, and the Aftermath of Empire*, (Cambridge: Cambridge University Press), 45-70
3. Sebastian Strunz, et al. 2019. “Leaving the sustainability or collapse narrative behind.” *Sustainability Science*, 14: 1717-1728.

Optional

4. Weiss, Harvey and Raymond Bradley. 2001 “What Drives Societal Collapse?” In Dove M.R. ed. 2014. *The Anthropology of Climate Change: A Historical Reader*. (Malden,MA: Wiley/Blackwell), 151-156.

Week 7: Sep 23, 2020

The Little Ice Age

1. White S. 2013. *The Climate of Rebellion in the Early Modern Ottoman Empire*. (Cambridge: Cambridge University Press). Ch 6 on “The Great Drought,” 140-162.
2. Dagroot D. 2017. *The Frigid Golden Age: Climate Change, the Little Ice Age and the Dutch Republic, 1560-1720*. (Cambridge: Cambridge University Press). “Introduction: Crisis and Opportunity in a Changing Climate” and “Tracing and Painting the Little Ice Age,” 1-21 and 253-276.

3. Reid A., 1990. "The Seventeenth Century Crisis in Southeast Asia." *Modern Asian Studies* 39(5): 639-659

Optional

4. De Boer, J.Z. 2002. "The Eruption of Tambora in 1815 and the 'Year without Summer'" in ed. De Boer and Sanders, *Volcanos in Human History*, 38-56.

RECESS WEEK: Sep 28 to Oct 2

Week 8: Oct 7, 2020 – Film Review Due

“Natural” Disasters

1. Curtis D.R., 2016. “Danger and Displacement in the Dollard: The 1509 Flooding of the Dollard Sea (Groningen) and Its Impact on Long-Term Inequality in the Distribution of Property,” *Environment and History*, 22(2): 103-135.
2. Davis M., 2000. Late Victorian Holocausts: El Niño Famines and the Making of the Third World. (London :Verso). Part III on “Decyphering ENSO,” 211-276.
3. Williamson F., 2018. "Malaya's Greatest Menace? Slow Onset Disaster and the Muddy Politics of British Malaya, c. 1900-50" *International Review of Environmental History* 4(2): 45-68.

Optional

4. Klinenberg, E. 1999. “Denaturalizing disaster: A social autopsy of the 1995 Chicago heat wave.” *Theory and Society* 28(2): 239-295

(C) Contemporary Climate Change

Week 9: Oct 13, 2020

Contestations in Climate Narratives

1. Carey M. 2007. “The History of Ice: How Glaciers Became an Endangered Species,” *Environmental History* 12(2): 497-527.
2. Dunlap R. and McCright A.M. 2011. “Organized Climate Change Denial.” In Dryzek J.S., Norgaard R.B. and Schosberg D. eds. *The Oxford Handbook of Climate Change and Society*, (Oxford: Oxford University Press), 146-60.
3. David Kneas, 2017. Chest Hair and Climate Change: Harrison Ford and the Making of “Lost There, Felt Here” *Environmental History* 22(3): 516-26.

Optional

4. Manzo, K. 2010. “Imaging vulnerability: the iconography of climate change.” *Area* 42(1):96-107

Week 10: Oct 20, 2020

Risk and Resilience

1. Jabareen Y. “Planning the Resilient City: Concepts and Strategies for Coping with Climate Change and Environmental Risk.” *Cities* 31: 220-229.
2. Greg Bankoff, 2009. "Cultures of Disaster, Cultures of Coping: Hazard as a Frequent Life Experience in the Philippines." In Mauch C. and Pfister C. ed. *Natural Disasters, Cultural Responses: Case Studies toward a Global Environmental History* (London: Palgrave)

3. Amrith, S. 2006. "Risk and the South Asian Monsoon" *Climatic Change* 151(1): 17-28

Optional

4. Adams V., Van Hattum T., and English D. 2009. "Chronic disaster syndrome: Displacement, disaster capitalism, and the eviction of the poor from New Orleans." *American Ethnologist* 36(4): 615-636.

Week 11: Oct 27, 2020

Climate in Local Politics

1. Williamson, F. 2018. "The Politics of Disaster: The Great Singapore Flood of 1954," *Environment, Nature and Space* 1(3):1-17.
2. Stephanie C. Kane, 2017. "Engineering an Island City-State: A 3D Ethnographic Comparison of the Singapore River and Orchard Road," in Jason Kelly ed., *Rivers of the Anthropocene*, University of California Press.
3. Powell M.A., 2019. "Singapore's Lost Coast: Land Reclamation, National Development and the Erasure of Human and Ecological Communities," *Environment and History* (Online First)

Optional

4. Muhammad Eqmal Hassan, et al. 2016. "Generating Climate Change Rainfall Scenarios for Singapore: A Tale of Scale," *Cosmos* 12(1): 8-13.

Week 12: Nov 4, 2020

Climate in International Politics

1. Gupta J. 2010. "A History of International Climate Change Policy," *Wiley Interdisciplinary Review*, 1(5): 636-653
2. Tan S.Y.L. and Kamaruddin H. 2019. "Environmental Challenges Within ASEAN: Contemporary Legal Issues and Future Considerations." In *ASEAN Post 50: Emerging Issues and Challenges*, (Basel: Springer Nature), 155-176.
3. Harrison K. 2015. "International Carbon Trade and Domestic Climate Politics," *Global Environmental Politics*, 15(3), 27-48.

Optional

4. Falkner, R. 2016. "The Paris Agreement and the New Logic of International Climate Politics," *International Affairs*, 92(5): 1107-1125.

Week 13: Nov 11, 2020 – Quiz

Narrating the Climate

1. Ghosh A. 2017. *The Great Derangement: Climate Change and the Unthinkable*. (Chicago: University of Chicago Press). "Part II: History" 85-116.
2. Pandey C.L. and Kurian, P.A. 2017. "The Media and the Major Emitters: Media Coverage of International Climate Change Policy," *Global Environmental Politics*, 17(4), 67-87.

Week 15: Nov 30, 2020 – Research Poster Due