

# **Brazil and Nature Protection: Conservation in a Tropical Giant**

*Undergraduate Seminar and Lab.*

Frederico Freitas  
Associate Professor of History  
North Carolina State University

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## **Course Description**

Brazil, the fifth-largest country on earth, has almost a third of its territory classified as protected areas. They include nature reserves with the strictest level of protection and areas reserved for sustainable use. They comprise, in their majority, public lands, but contain a percentage of privately owned estates. They are regulated by a centralized national system of protected areas, but their management is fragmented at all levels of government—federal, state, and municipal. They are located in the sparsely inhabited Brazilian hinterland but can also be found close to the country's large and densely populated cities. And throughout the years, they have appealed to a diversity of values and policy goals to justify their existence: protection of natural features, development of frontiers, preservation of endangered species and their inhabitants, conservation of biodiversity, sustainability, social justice. All in all, the protected areas of Brazil represent one of the most extensive and ambitious forms of territorial intervention ever implemented in the country.

This course offers an introduction to the evolution of ideas and practices of conservation in Brazil. The course will trace the historical evolution of conservation, in the country, from the colonial era to the twentieth century. Students will have the opportunity to discuss the colonial roots of conservation in tropical Brazil, the rise of the Brazilian nation-state and the diffusion of the national-park model in the country in the 1930s, and the conflicts between indigenous peoples, settlers, farmers, and policymakers over natural resources in the Amazonian rainforest. The course will also present the contested rise of important key concepts in conservation, such as resource scarcity and management, biodiversity, and sustainable development. The primary goal of the course is to give students access to the complex historical development of conservation policies, ideas, and practices in Brazil and beyond.

A major component of this course is the development of a historical GIS project on the spatial history of protected areas. In their projects, students will produce a research paper that utilizes GIS techniques to answer questions related to national parks and other protected areas in Brazil. To prepare for that, students will complete in-class tutorials that will give them the skills to work with GIS. Students will consult with the instructor to identify a case study and find sources online (e.g., historical Landsat imagery; shapefiles from the Brazilian Environmental Ministry, etc; historical documents from Brazilian online repositories, etc.). Students will be free to choose the scale of their projects (e.g. a protected area, a region, the whole country) and the period of study.

## **Objectives**

- To introduce students to the study of one of the key dimensions of environmental history: conservation policy.
- To offer a broader picture of conservation, land, and territorial policy in Brazil, gaining a basic understanding of Brazilian history and geography.
- To introduce the debates behind the historical establishment of some of the key ideas of

conservationist policy and practice, understanding the different manners these ideas are employed in a country like Brazil.

- Develop an individual research project in spatial history. Students will work with historical data to form an original research question in spatial history and use GIS tools and spatial analysis to address their questions. Projects are individual and the final product consists of a research paper and an oral presentation.
- Finish in-class training in desktop GIS (ArcGIS) and online mapping (ArcGIS online). Students will learn the basics of GIS, including data joins, clustering, georeferencing historical sources, projections, geolocation of historical data, symbology, and spatial statistics.

### Course Structure

*Participation* - This is a face-to-face course. Every week students are required to read the material listed under schedule and come to class prepared to discuss the texts. Students will also complete GIS tutorials prepared by the instructor. Meetings will be held at a laboratory classroom with computers equipped with the necessary software (e.g., ArcGIS). Students will be graded by their participation in class discussions and guided tutorials. See details in the [Participation Rubric](#).

*Presentations* - Each student will give a short presentation (10 minutes) on a given week's texts. Students should sign up for their presentation in [the sign-up sheet](#). Students will also present four times during the semester on the current stage of their final research project (see schedule of presentation below, under "Calculation of the Course Grade").

*Final Paper* - The main objective of this course is to lead students to produce a research paper on a historical topic (see [Final Paper Guidelines](#)). Students will present the paper orally to on the final day of classes and will turn in the written research paper during the finals week. Before that, they will also present the paper at various stages (i.e., proposal and draft) in a more informal setting to the class and to the instructor individually. See details under "Calculation of the Course Grade" below.

### Calculation of Course Grade

20%	<i>Participation</i>	Participation in-class discussions and tutorials. Completion of readings. Students will be graded from 0 to 10. See the <a href="#">Participation Rubric</a> for more details.
10%	<i>Presentation on the Readings</i>	Once during the course students will give a short presentation (10 min) on the readings. Students will present the authors, contextualize the readings, and present questions for discussion. Sign up for presentations <a href="#">here</a> .
70%	<i>Individual Research Project</i>	Individual spatial history project. Work with historical data to form an original research question. Use digital tools to answer the question. Final product: an in-class presentation AND a research paper that uses space to understand historical phenomena. Evaluation is divided into:
	5% <i>Draft Proposal</i>	1/25. Written. Introduction of research topic, methods, sources. Minimum of 300 words and target range of 300 to 500 words. Upload it to <a href="#">Moodle</a> .

5% Proposal	2/8. Oral and Written. Address topic, methods, sources, and historiographical intervention. Five-minute individual presentations followed by five-minute Q&A, and written proposal. Minimum of 400 words and a target range of 400 to 700 words. Upload it to <a href="#">Moodle</a> .
5% Preliminary Treatment	2/28-3/4. Oral. Fifteen-minute office-hours presentation of work done until now. Schedule an office appointment.
5% Draft Presentation	4/5. Oral. Preliminary presentation of final project. Five-minute presentations detailing work accomplished so far. followed by five-minute Q&A.
10% Final Project Presentation	4/19. Oral. Final presentation/exhibit to the Department of History faculty and grad students. You can make use of slides or an electronic poster. Q&A with instructor.
40% Final Paper	4/28. Written. Final Paper. Minimum of 3500 words pages and target range of 3500 to 5000 words. Upload it to <a href="#">Moodle</a> . See details in the <a href="#">Final Paper Guidelines</a> .

A+	100 – 97%	B+	89 – 87%	C+	79 – 77%	D+	69 – 67%
A	96 – 93%	B	86 – 83%	C	76 – 73%	D	66 – 63%
A-	92 – 90%	B-	82 – 80%	C-	72 – 70%	D-	62 – 60%
F	59 – 0%						

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## Schedule

### Week 1 - Introduction - Thinking Conservation

- William Cronon, “The Trouble with Wilderness; Or, Getting back to the Wrong Nature,” in *Uncommon Ground : Rethinking the Human Place in Nature*, ed. William Cronon. New York :: W.W. Norton & Co., 1996.
- Michael Soulé, “The Social Siege of Nature,” in *Reinventing Nature: Responses to Postmodern Deconstruction*, ed. Michael E. Soulé and Gary Lease (Washington, D.C.: Island Press, 1995.
- Proctor, James D. 1998. “The social construction of nature: Relativist accusations, pragmatist and critical realist responses.” *Annals of the Association of American Geographers* 88 (3): 352-376.

#### Classroom activities

Students will [sign-up for](#) presentation on the readings

### Week 2 - The Colonial Roots of Conservation in Brazil

- Miller, Shawn William. *Fruitless Trees: Portuguese Conservation and Brazil’s Colonial Timber*.

Stanford, CA: Stanford University Press, 2000.

*Classroom activities*

Students and structure will brainstorm preliminary ideas for final paper projects.

**Week 3 – The Plantation Frontier in Independent Brazil: Land Use in a Country of Enslaved Workers**

- Drummond, José Augusto. “The Garden in the Machine.” *Environmental History* 1, no. 1 (January 1996): 83–104.
- Dean, Warren. *With Broadax and Firebrand: The Destruction of the Brazilian Atlantic Forest*. Berkeley: University of California Press, 1997. Chapters 7, “The Forest Under Brazilian Rule,” and 8 “Coffee Dispossesses the Forest.”
- Cabral, Diogo de Carvalho. “Into the Bowels of tropical earth: leaf-cutting ants and the colonial making of agrarian Brazil. *Journal of Historical Geography* 50, (October 2015): 92-105.
- Pádua, José Augusto. “European Colonialism and Tropical Forest Destruction in Brazil.” In *Environmental History: As If Nature Existed*, edited by J. R. McNeill, J. A. Pádua and M.Rangarajan. New Delhi: Oxford University Press, 2010.”

*Assignments to be completed in the beginning of class*

1. Turn in the Draft Proposal before 11:55 pm.
2. Create your personal ArcGIS Online account.

*Classroom activities*

Lab: Intro to ArcGIS Pro and Acquiring Geographical Data.

**Week 4 – Science and Species Conservation**

- Duarte, Regina Horta. *Activist Biology: The National Museum, Politics, and Nation Building in Brazil*. Tucson: University of Arizona Press, 2016.
- Warren Dean, *With Broadax and Firebrand*, Chapter 6 “Science Discover the Forest.”
- Optional: André Rebouças’ 1876 National Park Manifesto (Portuguese)

*Assignments to be completed in the beginning of class*

1. Turn in the Final Project Proposal before 11:55 pm.

*Classroom activities*

Lab: Choosing the Right Projection, Data Manipulation, Georeferencing, Creation of Features.

**Week 5 – The First National Parks in Brazil**

- Freitas, Frederico. “A Park for the Borderlands: The Creation of the Iguazu National Park in Southern Brazil, 1880–1940.” *Revista de Historia Iberoamericana* 7, no. 2 (2014): 65–88.
- Franco, José Luiz de Andrade, and José Augusto Drummond. “Wilderness and the Brazilian Mind (I): Nation and Nature in Brazil from the 1920s to the 1940s.” *Environmental History* 13, no. 4 (2008): 724–750.
- Franco, José Luiz de Andrade, and José Augusto Drummond. “Wilderness and the Brazilian Mind (II): The First Brazilian Conference on Nature Protection (Rio de Janeiro, 1934).” *Environmental History* 14, no. 1 (2009): 82–102.

*Classroom activities*

Lab: Joining Tables and Spatial Joins (and QGIS)

*Suggested home activity (optional)*

Complete the tutorials "[Lesson 2 Installing QGIS and Adding Layers \(QGIS 3.0\)](#)." *Geospatial Historian*.

**Week 6 – Indigenous Lands and the March to the West in Central Brazil**

- Garfield, Seth. "A Nationalist Environment: Indians, Nature, and the Construction of the Xingu National Park in Brazil." *Luso-Brazilian Review* 41, no. 1 (2004): 139–167.
- Garfield, Seth. *Indigenous Struggle at the Heart of Brazil: State Policy, Frontier Expansion, and the Xavante Indians, 1937–1988*. Durham: Duke University Press, 2001. Chapters 2-4

*Classroom activities*

Lab: ArcGIS online

*Suggested home activity (optional)*

Complete the tutorial "[Creating New Vector Layers in QGIS 2.0](#)." *The Programming Historian*.

**Week 7 – Amazonia I - The Military Dictatorship and its Development plans for the Region**

- Foresta, Ronald A. *Amazon Conservation in the Age of Development: The Limits of Providence*. Gainesville: University of Florida Press, 1991.
- Little, Paul E. *Amazonia: Territorial Struggles on Perennial Frontiers*. Baltimore: Johns Hopkins University Press, 2001. Chapter Two: "Taming the Jungle: Development Cosmographies in Amazonia."

*Classroom activities*

Practicum: In the second half of class, students will work on the GIS part of their projects. Instructor will be in class for questions and help.

*Suggested home activity (optional)*

Complete the tutorial [Georeferencing in QGIS 2.0](#). *The Programming Historian*.

**Week 8 - Amazonia II – A National System of Protected Areas**

- Gary B. Wetterberg, Ghilleen T. Prance, and Thomas E. Lovejoy, "Conservation Progress in Amazonia: A Structural Review," *Parks* 6, 2 (Summer 1981): 5–12
- Benjamin S. Allen, "Politics and Nature Conservation in Brazil: Ten Years of the National System of Conservation Units (SNUC)" <<https://clas.berkeley.edu/research/politics-and-nature-conservation-brazil-ten-years-national-system-conservation-units-snuc>>
- Gary B. Wetterberg et al., *An Analysis of Nature Conservation Priorities in the Amazon*, Technical Series (Brasília: UNDP, 1976)
- Drummond, José Augusto. "From Randomness to Planning: The 1979 Plan for Brazilian National Parks." In *National Parks beyond the Nation: Global Perspectives on "America's Best Idea"*. Edited by Adrian Howkins, Jared Orsi, and Mark Fiege, 210–234. Norman: University of Oklahoma Press, 2016.

*Classroom activities*

Lab: Point Patterns and Descriptive Summaries; Remote Sensing and Intro to LULC Assessment

### **Week 9 – National Parks Vs. People**

- Freitas, Frederico. “Ordering the Borderland: Settlement and Removal in the Iguazu National Park, Brazil, 1940s–1970s.” In *The Nature State: Rethinking the History of Conservation*. Edited by Wilko Graf von Hardenberg et al., 158–175. Oxford: Routledge, 2017.
- Sérgio Brant Rocha, “Monte Pascoal National Park: Indigenous Inhabitants versus Conservation Units,” in *National Parks without People? The South American Experience*, ed. Thora Amend and Stephan Amend (Quito: IUCN/Parques Nacionales y Conservación Ambiental, 1995).
- Campbell, Jeremy M. *Conjuring Property: Speculation and Environment Futures in the Brazilian Amazon*. Seattle: University of Washington Press, 2015.

#### *Classroom activities*

Practicum: In the second half of class, students will work on the GIS part of their projects. Instructor will be in class for questions and help.

### **Week 10 - The Rise of Social Sustainability**

- Bratman, Eve Z. *Governing the Rainforest: Sustainable Development Politics in the Brazilian Amazon*. New York: Oxford University Press, 2019. Chapters 1 to 5.
- Keck, Margaret E., and Kathryn Hochstetler. *Greening Brazil: Environmental Activism in State and Society*. Durham, NC: Duke University Press, 2007. Chapters 3 and 4.
- Chico Mendes, *Fight for the Forest: Chico Mendes in His Own Words*, ed. Tony Gross (London: Latin American Bureau, 1989 (Optional))

#### *Classroom activities*

Preliminary presentation of final project. Five-minute presentations detailing work accomplished so far.

### **Week 11 – Deforestation and Conservation in Brazil Today**

- Elis Araújo et al., “Most Deforested Conservation Units in the Legal Amazon 2012–2015” <<https://imazon.org.br/en/publicacoes/most-deforested-conservation-units-in-the-legal-amazon-2012-2015/>> (Belém: Imazon, 2017)
- Imazon, Our Heritage Endangered: Why Amazon’s Conservation Units Are at Risk <<https://imazon.org.br/en/publicacoes/our-heritage-endangered-why->> (Belém: Imazon, 2019)
- Benji Jones, “What Bolsonaro did to the Amazon, in two Charts,” *Vox*, Oct 30, 2022 <https://www.vox.com/down-to-earth/2022/9/29/23373427/amazon-rainforest-brazil-jair-bolsonaro-lula-deforestation>

#### *Classroom activities*

Practicum: In the second half of class, students will work on the GIS part of their projects. Instructor will be in class for questions and help.

### **Week 12 – Final Research Paper Presentation**

Final Presentation. Final presentation to colleagues and invited department of history faculty and grad students. You can make use of slides (preferred), website, or electronic poster. Q&A with instructor. 10 minutes per student.

Paper Due four days after final in-class presentation