

The Cultural and Political Origins of Biology PS291 Spring 2020

Seminar Leader: Dr. Flavio D'Abramo
Course Times: Tuesdays, 15:45-19:00
Email: f.dabramo@bard.berlin.de
Office Hours: Tuesdays, 13:30-15:00, only by appointment

Course Description

8 ECTS-4 US credits. This course explores the way in which biological knowledge has been produced by specific historical, cultural and economic contexts. We focus on how key terms such as “health,” “mechanism,” “inheritance,” “reproduction,” “species,” “nature,” and “ecology” have been constructed, and on the role they play in shaping medical practice. We also consider the influence of other domains—natural-scientific, cultural and artistic, and religious—on the formation of biological knowledge. Throughout, we pursue our investigation with reference to case studies, and consider how these can be analysed with reference to fundamental dichotomies that have emerged in the natural and human sciences: mechanistic versus vitalistic conceptions of life, preformation versus epigenesis, causal versus purposive explanations, descriptive versus normative knowledge, form versus function, social versus epistemic value. Our aim is to reflect critically on the use of biology and medicine within political, cultural and economic regimes. The seminar includes off-site work in museum archives.

Learning Outcome

- To problematize terms such as science, society, biology, culture and scientific/social controversies
- To gain awareness about the connectedness within and between scientific production, and historical, cultural and political contexts
- To get acquainted with current debates within the field of science studies and history and philosophy of biology
- To critically analyse texts, films, and other (social) media
- To develop and summarize arguments with concision and precision

Requirements

You are expected to bring to class the reading materials that have been assigned. This class will be conducted in a seminar style. This means that we are co-learning, attentive to each other, and actively participating to the best of our ability. Active participation may take any or all of the following forms: verbal communication, active listening, or supporting your co-learners to speak.

You will be evaluated on the basis of:

Academic Integrity

Bard College Berlin maintains the staunchest regard for academic integrity and expects honest academic practice from students in their studies. In instances that students fail to meet the expected

standards of academic integrity, we will consult with the Code of Student Conduct, Section III Academic Misconduct.

Attendance and active participation

Attend all class sessions. This seminar also includes the visit to exposition on von Humboldt brothers at the Deutsches Historisches Museum on April, the 14th, and the artistic walk “A narrative cartography of viruses” on May, the 5th. Presence and active participation will weight 15% of the final grade. Please, bring to each class the course reading materials, a notebook containing this syllabus, your class notes, and your reading notes. For each class that you miss, you will lose 1 point. If illness or an emergency prevents you from attending, please inform me as soon as possible; attendance credit will then be arranged on a case-by-case basis. You are responsible for all class material that you miss. More than two absences (that is absences from two sessions of 90 minutes) in a semester will significantly affect the participation grade for the course. Please consult the Student Handbook for regulations governing periods of illness or leaves of absence.

Class presentation

Articles and book chapters are studied during each seminar meeting. Depending on the number of participants you are required to take responsibility for at least one seminar presentation of about 20 minutes (for instructions regarding the presentations, see below). If the number of participants is relatively small, you are required to accept more than one presentation. A respondent will be appointed for each presentation and s/he will ask questions or discuss points about the presentation for about 10 minutes. After that the discussion will be opened to the whole class. A grade is awarded for each presentation within one week after the presentation. In case of more than one presentation, the highest grade counts. The grade counts for 35% of the final grade.

Please note: not turning up when you are scheduled for a presentation is taken very seriously, for it means that you are letting down all your fellow students and are in effect sabotaging the entire meeting. Therefore, in cases of “no-show”, 1.0 will be subtracted from the final grade. Exceptions will be made only if you can demonstrate that the absence was due to reasons of force majeure (for example, serious illness, family decease, etc.), and if the absence was reported as early as possible (by means of email or if necessary, by phone).

Written paper

You are required to write a paper on a subject of your choice, relevant to the theme of the course, and selected in consultation with the instructors. A first version of the essay must be submitted as a Word document (attachment to f.dabramo@berlin.bard.edu), no later than March 20th at 12:00 p.m. Within three weeks (that is to say, no later than April 10th) the paper will be returned with critical comments and suggestions. The final revised version must be submitted within four weeks to the instructor, which is, no later than May 8th at 12:00 p.m. The grade awarded to the paper counts for 50% of the final grade.

Your paper will be graded according: academic rigor, richness of sources used, reflection of what has been discussed during the course; quality of the theoretical component; accuracy; creative originality; form. The paper will be evaluated on the basis of its contents and must conform to a minimum standard to be graded.

See below for the instructions to write the research essay

Policy on Late Submission of Papers

Syllabi for core and elective classes should note or refer to the following policy from the Student Handbook on the submission of essays: *essays that are up to 24 hours late will be downgraded one full grade (from B+ to C+, for example). Instructors are not obliged to accept essays that are more than 24 hours late. Where an instructor agrees to accept a late essay, it must be submitted within four weeks of the deadline and cannot receive a grade of higher than C.*

Thereafter, the student will receive a failing grade for the assignment.

INSTRUCTIONS FOR PRESENTATIONS

A good presentation takes about 20 minutes and contains the following elements:

- It provides some background information about the author. Please do not just copy his/her CV from the internet, but tell us in your own words who the author is and what s/he has been doing.
- The presentation makes clear what the text is about (or claims to be about) and why the author seems to have written it.
- It contains a short reminder of the structure and the contents of the text, presented in such a way that someone who has not read the text would be able to follow it.
- It contains two or three well-chosen quotations that clarify the author's intentions and her/his argument.
- It contains an element of critical evaluation (for example: What to make of this text? How convincing do you find the author? Are there gaps or weaknesses in the argument? Can you find counterarguments against his/her claims? And so on). Don't be afraid to also indicate your personal opinion: what did you think of the text, did you like it, or disliked it, and why?
- Use of Powerpoint is not mandatory, but very welcome. However: use it wisely. It is never a good idea to put long stretches of text on the screen because it will distract your audience's attention from what you are saying. Use text elements sparingly: not with the intention of providing information, but rather, with the intention of helping your audience follow the thread of the information provided in your spoken presentation. Likewise, images are welcome, but should be functional, not just recreational.

While all students following the course are expected to have read the texts under discussion, a good presenter (and recipient of a high grade) has taken the trouble of looking further. For example, if the required reading consists of only a few sections of a longer chapter, the presenter will have read the entire chapter so as to be able to put the sections in context. He or she will also have taken the trouble to visit the library and have a look at additional literature relevant to the text and the themes that are central in it. Therefore, you need to plan your presentation well in advance.

INSTRUCTIONS FOR FINAL RESEARCH ESSAY

The final research paper should critically explain a theoretical question by engaging with the course materials. The paper should be analytical, not descriptive. You are encouraged to meet with the instructor to discuss your topic before submitting the final essay.

Keep in mind the following:

- Layout: Double spaced, Source Sans Pro, Font size 11
- Length: 6000 words
- Format: Chicago Style
- A research question (What do you plan to analyse/explain). Be as specific as possible. Avoid general questions.
- It will help to write a summary of your research paper (250 words) as a step to discussing the paper with me
- Rely on at least 6 academic articles or book chapters that focus on your specific topic. You can use newspaper articles or web material but they won't count as academic articles.
- Submit by 8 May 2020, 12pm by E-mail

Grade Breakdown

- Overall participation: 15%
- Class presentation: 35%
- Final research paper: 50%

Grading Scale:

A=100-94;	C=77-74;
A-=93-91;	C-=73--71;
B+=90-88;	C=77-74;
B=87-84;	D+=70-68;
B-=83-81;	D=67--61;
C+=80-78;	F=60 and below 4

Assessment

1. To read the texts and reflect;
2. To discuss the works with you peers, even when you do not think you fully understood every point or you ideologically disagree with the author(s);
3. Volunteer to answer questions, make comments, and ask questions of your own. Full credit for the participation part requires you to speak in class without being called on;
4. To give one 20 minutes presentation;
5. To give one 10 minutes comment on a presentation;
6. To be respectful to each opinion and to regard Bard College academic conduct code;
7. To attend all class sessions and visits (please, inform instructors in case of illness or other emergencies);
8. To bring the reading material and your notes.

Schedule

Spring 2020 classes start on Tuesday, January 28 and run until Tuesday, May 12 with spring break planned from Monday, April 6 – Monday, April 13. Completion week is from May 11 - 15. Students are required to be on campus during completion week. Scheduled class times will be available online under the relevant course heading: <https://berlin.bard.edu/academics/courses/>

	Date	Topic	Reading, Tasks, Discussion
1	28 January	<p>Introduction</p> <p>Overview of seminar and collectively establish ground rules</p> <p>Discussion of the terms, “science”, “culture”, “biology”, “biomedicine” and “politics”</p>	<p>Margaret Lock and Vinh-Kim Nguyen 2018 <i>An Anthropology of Biomedicine</i>, Chapter 3, Anthropologies of Medicine, and Chapter 4, Colonial Disease and Biological Commensurability, pp. 51-101 (50 pages)</p>
2	4 February	<p>Science, society and progress</p> <p>In this encounter we will analyse the ways in which science can be contextualised and criticized within cultural, political and progressive frameworks</p>	<p>Jennifer Croissant and Sal Restivo 1995 ‘Science, social problems, and progressive thought: Essays on the Tyranny of Science’ in Susan Leigh Star (ed) <i>Ecologies of knowledge</i>, SUNY Press, pp. 39-87 (48 pages)</p> <p>Ian Hacking 1996 ‘The looping effects of human kinds’ in Dan Sperber et al (Eds) <i>Causal cognition</i>, Oxford Scholarship, pp. 351-394 (43 pages)</p> <p><u>Further reading</u></p> <p>Michelle Murphy 2017 <i>The Economization of Life</i>, Duke University Press, Introduction, Bottles and Curves, pp. 1-16</p> <p>George Canguilhem 2001 <i>The Living and its Milieu</i>, Grey Room, 3: 6-31</p>
3	11 February	<p>Social Studies of Knowledge</p> <p>In this session, we will analyse a case study to individuate political aims embedded in technological artefacts. We will also look at the debate around the social studies of scientific institutions</p>	<p>Langdown Winner 1980 <i>Do artifacts have politics?</i> <i>Dedalus</i> 109(1): 121-136 (15 pages)</p> <p>David J. Hess 1997 <i>Science Studies. An Advanced Introduction</i>. New York University Press, Chapter 4, Social Studies of Knowledge, pp. 81-111 (30 pages)</p> <p><u>Further reading</u></p> <p>Michael Foucault 1984 ‘What is Enlightenment?’ in Paul Rabinow (Ed) <i>The Foucault Reader</i>, Pantheon Books, pp. 32-50</p> <p>John Bellamy Foster 2000 <i>Marx’s Ecology</i>, Monthly Review Press, Chapter 5, The Metabolism of Nature and Society, pp. 141-177</p>
4	18 February	<p>Critical and cultural studies of science and technology</p> <p>In this encounter, we look at the Marxist, feminist, radical science movements of last century and how they have engaged with history of science and anthropology</p>	<p>David J. Hess 1997 <i>Science Studies. An Advanced Introduction</i>. New York University Press, Chapter 5, Critical and Cultural Studies of Science and Technology, pp. 112-156 (44 pages)</p> <p><u>Further reading</u></p> <p>Nikolai Ivanovich Bukharin et al. 1971 <i>Science at the Cross Roads</i>, Frank Cass & CO:</p>

			<p>Foreword (By Joseph Needham), pp. VII-X,</p> <p>The 'Physical' and 'Biological' in the Process of Organic Evolution (By Boris Zavodovsky), pp. 69-80</p> <p>The Social and Economic Roots of Newton's 'Principia' (By Boris Hessen), pp. 150-212</p>
5	25 February	<p>Empire, ecology and ecofeminism</p> <p>In this session, we look at historical research about environmental concerns developed in European colonies and as produced amidst colonial governance and in light of the scientific hegemony of controlling the feminine character of nature.</p>	<p>Richard H. Grove 1995 <i>Green Imperialism. Colonial Expansion, Tropical Islands Edens and the Origins of Environmentalism</i>, Introduction pp. 1-16 (15 pages)</p> <p>Carolyn Merchant 1980 <i>The Death of Nature. Women, Ecology and the Scientific Revolution</i>, Chapter 7, Dominion Over Nature, pp. 164-190 (26 pages)</p> <p><u>Further readings</u></p> <p>Alexis Shotwell 2016 <i>Against Purity. Living Ethically in Compromised Times</i>, University of Minnesota Press:</p> <p>Introduction, Complexity and Complicity: An Introduction to Constitutive Impurity, pp. 1-19</p> <p>Chapter 3, Shimmering Presences: Frog, Toad, and Toxic Interdependencies, pp. 77-106</p>
6	3 March	<p>Science and the feminist critiques # 01</p> <p>In this session, we look and discuss the critical, feminist analyses about key concept of scientific inquiry such as objectivity, gender, autonomy, agency, subjectivity, authority and power.</p>	<p>Donna Haraway 1988, <i>Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective</i>, <i>Feminist Studies</i> 14(3): 575-599 (24 pages)</p> <p>Sandra Harding 1992, <i>Rethinking Standpoint Epistemology: What is "strong objectivity?"</i>, <i>The Centennial Review</i> 36(3): 437-470 (34 pages)</p> <p><u>Further reading</u></p> <p>Hilary Rose 1994 <i>Love Power and Knowledge. Towards a Feminist Transformation of the Sciences</i>, Polity Press, pp- 1-50</p> <p>Rosi Braidotti 1999 'Signs of Wonder and Traces of Doubt: On Teratology and Embodied Differences' in Janet Price and Margrit Shildrick (Eds) <i>Feminist Theory and the Body: A Reader</i>, Routledge, Chapter 5.2, pp. 290-301</p>
7	10 March	<p>Science and the feminist critiques # 02</p> <p>In this session, we will look and discuss the critical, feminist analyses of Evelyn Fox Keller about the importance of studying developmental biology for a feminist science.</p>	<p>Evelyn Fox Keller 1997, <i>Developmental Biology as a Feminist Cause?</i> <i>Osiris</i> 12: 16-28 (13 pages)</p> <p><u>Further reading</u></p> <p>Emily Martin 1991 <i>The Egg and the Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles</i>, <i>Signs</i> 16(3): 485-501</p> <p>Maurizio Meloni 2018 <i>A Postgenomic Body: Histories, Genealogy, Politics, Body & Society</i> 24(3): 3-38</p>
8	17 March	<p>Science and ideology</p>	<p>Hilary and Steven Rose 1976, <i>The radicalisation of Science. Ideology of/in the Natural Sciences</i>, pp. 1-31 (30 pages)</p>

		In this encounter we analyse the take developed by Hilary and Steven Rose about the role of ideology in scientific theories and practices.	<p><u>Further reading</u> Georges Canguilhem 1981 <i>What is Scientific Ideology?</i> Radical Philosophy 29: 19-25</p> <p>Helga Nowotny 2005 'The Changing Nature of Public Science' in Helga Nowotny et al. (Eds) <i>The Public Nature of Science under Assault</i>, Springer, pp. 1-27</p>
9	24 March	<p><u>Visit at the Deutsches Historisches Museum</u></p> <p><i>Wilhelm und Alexander von Humboldt</i> Exhibition.</p> <p>In this visit, we will discover how the biological environment has been thematised by Alexander von Humboldt within a post-colonial framework.</p>	<p>Aaron Sachs 2003 <i>The Ultimate "Other": Post-Colonialism and Alexander von Humboldt's Ecological Relationship with Nature</i>, History and Theory 42(4):111-35 (24 pages)</p> <p>Juli Pausas and William Bond 2018 <i>Humboldt and the reinvention of nature</i>, Journal of Ecology 107:1031-1037 (6 pages)</p>
10	31 March	<p>Industrialism, ecology, economy and public health</p> <p>In this encounter, we analyse arguments developed by historians of science Bonneuil and Fressoz about the economic strategies of last two centuries to commodify nature and to boost industrial productivity as well as the social struggles of local communities to protect their health against ecological degradation.</p>	<p>Christophe Bonneuil and Jean-Baptiste Fressoz 2016 <i>The shock of the Anthropocene</i>, Verso Book:</p> <p>Chapter 9 Agnotocene: Externalizing Nature, Economizing the World, pp. 198-221 (23 pages)</p> <p>Chapter 11 Polemocene: Resisting the Deterioration of the Earth since 1750, pp. 253-287 (34 pages)</p> <p><u>Further reading</u> James Dunk et al. 2019 <i>Human Health on an Ailing Planet - Historical Perspectives on Our Future</i>, The New England Journal of Medicine 381(8): 788-782</p> <p>Frederick Buell 2014 'A Short History of Oil Cultures; or, The Marriage of Catastrophe and Exuberance' in Ross Barrett and Daniel Worden (Eds) <i>Oil Culture</i>, University of Minnesota Press, pp. 69-88</p> <p>Hannah Landecker 2019 <i>A metabolic history of manufacturing waste: food commodities and their outsides</i>, Food, Culture & Society 22(5): 530-547</p>
	7 April	SpringBreak	
11	14 April	<p>Artistic walk of Berlin with Sybille Neumeyer: A narrative cartography of virus (place and time TBD)</p> <p>In this encounter we will wonder through the Berlin urban landscape to listen to stories about historical, cultural medical and social events on viruses.</p>	<p>Margaret Lock and Vinh-Kim Nguyen 2018 <i>An Anthropology of Biomedicine</i>, chapter 14 On Microbes and Humans, pp. 335-346 (11 pages)</p>
12	21 April	<p>Microorganisms, symbiosis and origins of sociality</p> <p>In this session, we reflect on Myra Hird's proposal to reinterpret life and sociality in light of symbiosis.</p>	<p>Myra Hird 2009 <i>The Origins of Sociable Life: Evolution After Science Studies</i>, Chapter 3, Evolutionary Theory and its Discontents, pp. 58-76 (18 pages)</p> <p><u>Further reading</u> Donna Haraway 1999 'The Biopolitics of Postmodern Bodies: Determinations of Self in Immune System Discourse' in Janet Price and Margrit Shildrick (Eds)</p>

			<p><i>Feminist Theory and the Body: A Reader</i>, Routledge, Chapter 3.7, pp. 203-214</p> <p>Joost van Loom 1999 'Parasite Politics: On the Significance of Symbiosis and Assemblage in Theorizing Community Formation' in Chris Pierson & Simon Tormey (Eds) <i>Politics at the Edge</i>, PSA & Palgrave, pp. 241-253</p>
13	28 April	<p>The biology of history</p> <p>In this session, we reflect on Hannah Landecker's scholarship as a specific way to connect the history of biology with biological inquiries on microorganisms, and the history of late industrialism.</p>	<p>Hannah Landecker 2016 <i>Antibiotic Resistance and the biology of history</i>, <i>Body and Society</i> 22(4): 19-52 (33 pages)</p> <p><u>Further reading</u></p> <p>Gabrielle Hecht 2018 <i>Interscalar Vehicles for an African Anthropocene: On Waste, Temporality, and Violence</i>, <i>Cultural Anthropology</i> 33(1): 109-141</p> <p>Michelle Murphy 2017 <i>Afterlife and Decolonial Chemical Relations</i>, <i>Cultural Anthropology</i> 32(4): 494-503</p>
14	5 May	<p>Colonialism, NGOs and Global Health</p> <p>In this encounter, we frame the birth of biomedicine, nongovernmental organisations and global health within the European colonialism to understand its contradictory characteristics.</p>	<p>Franz Fanon 1965 <i>A Dying Colonialism</i>, Chapter 4 Medicine and Colonialism, pp. 121-145 (24 pages)</p> <p>Margaret Lock and Vinh-Kim Nguyen 2018 <i>An Anthropology of Biomedicine</i>, Chapter 13 Global Health, pp. 291-309 (18 pages)</p> <p><u>Further reading</u></p> <p>Rob Nixon 2011 <i>Slow Violence and the Environmentalism of the Poor</i>, Introduction, pp. 1-44</p> <p>Johan Galtung 1969 <i>Violence, Peace, and Peace Research</i>, <i>Journal of Peace Research</i> 6(3): 167-191</p>
15	12 May	<p>Individual presentations of the essays</p> <p>In this last encounter, we will hear about the essays written by all students.</p>	<p><u>Assignment due</u>: Final revised version of the essay due on May 8th at 12:00 p.m.</p>

Essay Deadlines

First version of the essay due March 20th at 12:00 p.m.

Final revised version of the essay due May 8th at 12:00 p.m

Grades Submission

All grades are submitted digitally to the Registrar's office in a template provided in advance. Reminders about the above deadlines will be communicated by registrar@berlin.bard.edu

Library and Book Purchase Policies

If you have not yet contacted library services (b.djundeva@berlin.bard.edu) regarding the preparation of your course reader or the ordering of reserve course texts for the library, please do so as soon as

possible. For your information: the college book policy for 2019-2020 is that reserve stocks of books will be lent to students on the basis of need, or (thereafter) on a first come first served basis.