

History of Science 350
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R 1:30-3:15
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TR 9:30-10:45 in 4281 H.C. White

English 461
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From Frankenstein to Dracula: Nineteenth-Century British Literature, Science, and Culture

"I went into science a great deal myself at one time; but I saw
it would not do. It leads to everything: you can let nothing alone."

—George Eliot, *Middlemarch* (1871)

This course investigates narratives of transformation and evolution from Mary Shelley's *Frankenstein* (1818), through Charles Darwin's *Origin of Species* (1859), to Bram Stoker's *Dracula* (1897), in the broader context of nineteenth-century British culture. We will explore the interactions, similarities and differences among scientific, literary, and popular renderings of change over time and space (including those in scientific texts, novels, poems, magazine essays, and cartoons). At the level of form, we will consider the similarities and differences in scientific and literary genres with regard to openings, development, and modes of closure, and we will explore these issues in evolutionary theory itself, expressed as concerns over origins, transformation, and ends or goals. Delving more deeply into questions of what counts as "natural," we will examine the problems of taxonomic organization, hierarchy, mixing, degeneration, monstrosity, and the supernatural, as they were produced in different genres. We will study debates accented by theories that unsettled or fixed boundaries between species, sexes, and races. This course also investigates the nature of interdisciplinary work by asking what kind of evidence--that crucial "missing link"--counts when drawing different discourses into dialogue. At the deepest level, we wish students to arrive at a fundamental appreciation of the unities and disparities of Victorian culture, the common context of literary, scientific, and social thought.

Course requirements:

- *Class attendance (over 3 absences affects course grade) and participation, including six commentaries, or informal writing assignments (15%)
- *Unit one paper (5-7 pages), due Tuesday, 10/10, in class (25%)
- *Victorian periodicals assignment (500 words), due Thursday, 10/19, in class (10%)
- *Unit two paper (5-7 pages), due Thursday, 11/9, in class (25%)
- *Unit three paper (5-7 pages), due Thursday, 12/14, in class (25%)

Required reading:

(Please use **Broadview editions only**, available at A Room of One's Own, 307 W. Johnson St. If you buy all 4 books as a package, you get them for the price of 3. Once the seal is broken on books purchased as a set, they may not be returned.)

Mary Shelley, *Frankenstein*
Charles Darwin, *On the Origin of Species*
Bram Stoker, *Dracula*
H. G. Wells, *The Time Machine*

*Course reader (available for purchase at History of Science Department, 7143 Social Sciences, 7:30am-3pm M-F.
Note: Course readers are not returnable.)

Schedule of Course Topics

(Readings marked * are in reader)

T 9/5: Introduction: Origins and Transformations

Unit I: Forms and Transformations, 1800-1840s

R 9/7: Genesis, Origins, and Narrative

Genesis; Paley; Lamarck (excerpts from chs 3, 4), all in Broadview *Origin*, 562-576

How do these three texts account for the origins of new living beings? Which kind of explanation do you find most appealing, and why?

T 9/12: *Frankenstein*: Narrative Structure, Origins

Frankenstein, Vol 1: 45-115; App. G: 353-359

What are the origins or beginnings of this story? Consider origins within the story itself and about the process of writing the story. Why do you think the uncertainty of origins here is significant?

R 9/14: Travel, Time, and Space

Frankenstein, Vol 2, 3: 117-244

Analyze an episode of travel in *Frankenstein*. How does it function in the novel as a device to move the plot along, or as a metaphor, or both?

T 9/19: Doublings: Characters and Narratives

Milton in *Frankenstein*, 292-296

This novel is replete with many doubles and repetitions. Use textual analysis to discuss one instance of doubling, on the level of author, or narrator, or character.

R 9/21: Discussion of *Frankenstein* (split)

T 9/26: Tennyson, Time and Deep Time

Lyell in Broadview *Origin*, 605-608 (top); *Tennyson, "In Memoriam," selections

By what literary means (such as analogy, repetition, or alliteration) do Tennyson and Lyell convey the vastness of time? To what ends or purposes does each develop this concept?

R 9/28: Tennyson and *Vestiges*

*Tennyson, "In Memoriam," selections

This poem wavers between doubt and belief. Find two instances where the poem expresses doubt and consider how spiritual doubt is linked to nature. How is this oscillation captured in the structures of the poem, the different sections including the Epilogue?

Unit II: Evolution, Periodical Culture, and British Society

T 10/3: Thinking about Darwin and the *Origin of Species*

Origin App. A (autobiography), B (Beagle voyage)

Compare a notion of speculation (religious belief, evolution in nature) between these two genres.

R 10/5: The Structure and Argument of the *Origin*

Origin, chs. 1-4

When Darwin says that nature "selects," he anthropomorphizes nature. What persuasive benefits might this metaphor convey to his nineteenth-century audience? Do you see any potential difficulties the metaphor might carry with it (again, for his audience)?

T 10/10: Reception of *Origin* (direct and indirect responses); Intro to Periodical Culture

*Huxley, *Lewes, *'"With Mr. Gorilla's Compliments;" *'"Monkeyana"

Unit 1 paper due

Analyze a figure or metaphor used in one of these responses to Darwin's *Origin*. How does figurative language illuminate a specific understanding of evolutionary theory?

R 10/12: Darwin's difficulties and others' difficulties with Darwin
Origin, chs. 5-8

Variations, transitions, instinct, and hybridism all pose potential problems for Darwin's theory. Find a passage in which he sets up a difficulty and answers it. What is the problem? How does he deal with it?

T 10/17: Time, space, and travel in the *Origin*
Origin, chs. 9-end

The relationship between time and space is crucial to Darwin's argument. From this portion of the book, identify a passage where space and time interact in Darwin's geographical and geological arguments, and explain how the interaction supports a part of his argument.

R 10/19: Discussion (split)
Victorian periodicals assignment due

T 10/24: Race, Gender, and Hierarchy in Evolution
Darwin, Appendix F, *Descent of Man* excerpts, 495-497, skim 508-520, read 520-561
*Huxley, frontispiece to *Man's Place in Nature*

How do race and gender figure into Darwin's arguments about human evolution and the evolution of civilization? Pick one or two specific examples and discuss the assumptions underlying them.

R 10/26: Gender and the Evolution of Intelligence
*Becker, "Is There Any Specific Distinction between Male and Female Intellect?" *Romanes, "Mental Differences between Men and Women"
*Simcox, "The Capacity of Women"

[Note that the first two pages of the Romanes reading are misplaced in the reader. They are on Reader p. 60 but should be on p. 50.]

How might you read Becker's 1868 essay as a social context for Darwin's later publication on sexual selection and gender difference? What does Becker claim are the effects of social forces that Darwin calls a natural characteristic? How do Romanes and Simcox continue and alter this argument about differences between women and men? On what basis does Romanes ground his argument that men are more intelligent than women, and how does Simcox refute this?

T 10/31: The New Woman
*Allen, "Plain Words on the Woman Question," *Blind, "Chaunts of Life,"
*Levy, "A Ballad of Religion and Marriage"

How might you read Levy's poem as a response to Allen's eugenicist views of gender?
How does Blind envision the "origin" of life in contrast to Darwin's account?

R 11/2: Discussion (split)

Unit III: Pressing the Limits of Narrative, Science, and Technology

T 11/7: Wallace, Carpenter, and Spiritualism
Dracula, App. E, 456-467; *Wallace, "Spiritualism and Modern Science;" *A Defence of Modern Spiritualism"

Both Carpenter and Wallace seek to address spiritualism "scientifically." How does each contextualize spiritualism so as to subject it to scientific analysis?

R 11/9: Levy -Telepathy and the Scientific Sublime

*Levy, "The Recent Telepathic Occurrence at the British Museum" (1888)

Unit 2 paper due

What role do the supernatural and telepathy (or the "scientific sublime") play in Levy's story?

T 11/14: *Dracula* and the Scientific Sublime

Dracula chs. 1-8, pp. 31-138

What's significant about the mingling (rather than the segregation) of different kinds of documents and eye-witnesses in telling this story of vampirism? Analyze the narrative structure of *Dracula*: how is the story arranged and what is important about the roles of transcription and editing?

R 11/16: Under/out of Control: Nature/Science in *Dracula*

Dracula, chs. 9-13, pp. 139-215

One way to read *Dracula* is as a story about control. What is out of control in this story? How is science associated with control? Where does scientific control seem to meet its limits? Give specific examples from the text.

T 11/21: Disordering and Reordering of Sex and Gender in *Dracula*

Dracula chs. 14-19, pp. 216-299

How do you read the parallels between Seward's star case Renfield and the cases of Lucy and Mina? In other words, what significance can you draw between an insane man and two "new women" (see the allusion to "the new woman" on p. 123) in this novel?

R11/23: THANKSGIVING

T 11/28: *Dracula* and the Condition of Modernity

Finish *Dracula*, ch. 20-end 300-419; App. H: reviews

One characteristic of the "modern" at the turn of the century was the fragmentation and disunity of modern consciousness. How does the narrative form of the novel reflect this fragmentation? How is this fragmentation overcome by the end of the novel?

R 11/30: *The Time Machine*: Narrative Order and Disorder

The Time Machine (all)

The word "anachronism" comes up twice (ch 1, p.63 and ch 3, p.69.) "Anachrony" is about temporal displacement, or a discrepancy between the order in which events of a story occur and the order in which they are presented in the plot to the reader. By studying narrative structure and temporal devices, we can observe the dizzying effects of dislocation and discontinuity that this novel explores. Give two examples of narrative disorder and the effects of anachrony.

T 12/5: Time's Arrow: H. G. Wells, Fin-de-siècle Pessimism, and Degeneration

The Time Machine, App. A, App. C4.

The appendices comprise selections on degeneration, a phenomenon understood in both biological and cultural dimensions. Compare two different texts with respect to the degree to which human cultural degeneration is tied to or subsumed under biological degeneration.

R 12/7 Discussion (split)

T 12/12 Film

R 12/14: Course Overview/Discussion **Unit 3 paper due**
Academic Performance and Accommodation

Attendance and Participation. Your engagement with this course has a few crucial components. Only 3 absences for the term are permitted without adversely affecting your grade, so reserve these absences in case of illness or emergencies. In addition, your oral participation is important, in both common lecture/discussions and those class periods when we split up into the two different courses. Please note that the six ungraded “commentaries” on readings also come under this heading of “attendance and participation.”

Course Website. We will be using “Learn@UW,” an interactive course website, for distributing all writing assignments and handouts and for important website links and other information. To access the Learn@UW site for this course, follow these two steps:

1. Open up an Internet browser and go to this website (which you should then bookmark):

<https://uwmad.courses.wisconsin.edu/>

This is your “login page” for Learn@UW. You will need to type in your WiscWorld username and password to get to the next screen which is your “portal page.” Notice that on this page there is information about the “Help Desk” if you have any trouble navigating to the site or getting any of the information. The Help Desk is available to assist you around the clock, so please contact this number (264-HELP)!

2. Once on your Learn @UW portal page, you will see a box called “**My Madison Courses**” which will list all your UW courses that have a Learn@UW website. Click on the link under this heading for “Nineteenth-Century Literature, Science, and Culture” and you’ll arrive next at the course website. 1. Open up an Internet browser and go to this website (which you should then save in your “favorite” file):

<https://uwmad.courses.wisconsin.edu/> This is your login page for Learn@UW. You will need to type in your WiscWorld username and password to get to your “portal page.”

2. Once on your Learn @UW portal page, you will see “My Madison Courses” which will list all your UW courses that have a Learn@UW website. Click on the link under this heading for “Nineteenth-century British Literature, Science, and Culture,” and you’ll arrive next at the course website.

Specific Assignments. Each written assignment will be posted 10 days in advance of the due date on the course website for you to download, print, bring to class, and ask questions. If you misplace the assignment, you can always download and print out again from the website.

Extensions are only granted if requested before the due date, and only in case of illness or other serious emergency. (A printer failure does not qualify.) All extensions will have a definite new due date established. Papers received after the new due date will be subject to late paper penalties.

Late paper policy. Any piece of writing that you hand in late without an extension will have the following penalties assessed: a quarter of a grade for every working day late. For example, if the paper on its merits deserves a B (3.0 on a scale of 4), after one day it would receive a B/BC (2.75), after two days a BC (2.5), after three a BC/C (2.25), after four a C (2.0).

Plagiarism: plagiarism is a serious breach of academic integrity and may be grounds for failure on the assignment plagiarized (take-home exam or paper). If you use 3 or more words in a row from another source, it must be placed in quotation marks and footnoted. Otherwise, it is plagiarism.

Appealing a Grade: If you have questions about a grade, speak to the professor for your course. If the problem is not resolved, you should speak with the Undergraduate Chair in your course’s department. The Undergraduate Chair will attempt to resolve the issue informally and inform you of the Appeals Procedures if no resolution is reached informally.

Access and Accommodation: We will make every effort to honor requests for reasonable accommodations made by individuals with disabilities. (If you think you qualify for accommodation, please contact the McBurney Disability Resource Center [263-2741; <http://jumpgate.acadsvcs.wisc.edu/~mcburney/>] to establish your eligibility for services.) Requests for accommodation can be responded to more effectively if we receive them as far in advance as possible, preferably at the beginning of the semester. Such requests are confidential.

Religious Observance: If religious holidays or observances conflict with your participation in this course, please come talk to your professor **well in advance** for us to work out alternative arrangements.

If any other problems arise, either academic or personal, which might jeopardize your performance in the course,

you must try to inform your professor after class or by the soonest available office hour.

Grading Scale for Papers:

- A: For outstanding essays only. Thesis and argument are clear, thought-provoking, and based on correctly understood facts; material used to support the argument synthesizes ideas from different parts of the course (readings, lectures, discussions from different weeks); relationships drawn between facts and ideas are sophisticated, subtle, and/or original. Writing is grammatically correct and succinct. The argument flows well from point to point, without any puffery or wasted words.
- AB: For very good essays that for some reason fall short of the criteria listed above. For example, the argument may be murky in one place; information may be presented that doesn't directly or clearly contribute to the argument; writing style may be awkward here and there, or flawed by one or two consistent (if minor) grammatical errors.
- B: Your basic okay grade. The essay may pursue a straightforward but not especially deep or sophisticated argument; it is okay as far as it goes, but doesn't penetrate the material very far. It may have a flash of brilliance that is unfulfilled, counterbalanced by minor grammatical problems, a weakness in argumentation, and/or a significant misunderstanding of events or chronology.
- BC: The essay shows some of the basics of the ideal essay, but is weakened by a lack of serious think-work or writing problems. It may make superficial connections without offering sufficient evidence to make the connections plausible or persuasive, or it may have what is in principle a good argument supported by incorrect facts or chronology. Alternatively, it may provide a fairly solid argument with minor flaws, from which the reader is repeatedly distracted by awkward or ungrammatical prose.
- C: A grade signifying some serious problem in essay-writing. It may deliver facts without a recognizable thesis or argument; it may wander away from the point; or it may be a thoughtful attempt so weakened by writing problems (grammar, punctuation, word choice) that it is difficult for the reader to understand a crucial point you are trying to make.
- D: A marginal grade. There may be enough in here to show you have attended a few lectures and/or done some of the reading, but the essay indicates no effort at synthesis or thinking on your own, or else shows a serious misunderstanding of the nature of the material and/or the assignment. Also used for essays that are just barely coherent.
- F: For unacceptable essays. An essay may be judged unacceptable if it contains plagiarism (see above); if it consists primarily in content inappropriate to the question or the material for this course; if it shows a complete misunderstanding of the course content; or if the writing fails to meet standard college-level requirements of basic communication in English.

The A-F system translates on your transcripts into a 4-point scale, where A = 4, AB = 3.5, B = 3, BC = 2.5, C = 2, D = 1, and F = 0. On any given assignment, you may receive a grade that is different from one of these, reflecting a penumbra around each grade (e.g., the "B" grade might range between 2.76 and 3.25). Thus you can tell if your paper is at the high, middle, or low end of the grade range for any given assignment.