

ARTH 5801.002 – Topics in Art History: Science and Design, 1800–Today
Fall 2023, 3 credits
Wednesdays, 5:00–7:50 PM, ART 280



Professor Contact Information

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Office hours: Mondays from 2:00–3:00 PM and Wednesdays from 3:30–4:30 PM. Also available by appointment (in-person or Zoom).

Course description

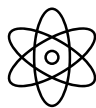
This course investigates connections between science and design from c. 1800 to the present. A particular emphasis will be placed on the close relationship between science and design during the nineteenth century. The course will demonstrate how design helps produce science and how science informs design, showing that they are not compartmentalized, separate fields but in continual dialogue with one another. In addition to considering the cross-fertilization between science and design, both disciplines will also be studied as products of the broader culture they inhabit. “Design” will be conceived broadly, and a variety of topics will be explored, including but not limited to astronomical drawings and photography, botanical and natural history illustration, medical illustration, science fiction illustration, typography, information graphics, video games, fashion, furniture, and dioramas.

Course structure & content

This class meets in person. Readings are from a variety of sources and will be posted on Canvas. Make sure you do your readings and any required work before our class days. Readings will be supplemented by lectures, discussions, and class activities throughout the semester. I have included a course schedule of topics and readings in this syllabus, but be sure to check your email and Canvas regularly for any adjustments to the schedule.

Course objectives

- Students will investigate various forms of design in connection with different scientific disciplines.
- Students will reach an understanding of the dynamic interchange between design and science.
- Students will engage in and recognize the value of a cross-disciplinary approach to art and design history.
- Students will apply the analytical and communication skills needed to conduct research and present conclusions thoughtfully in verbal and written form.



Course disclaimer

Content in the arts and design can sometimes include works, situations, actions, and language that can be personally challenging or offensive to some students on the grounds, for example, of sexual explicitness, violence, or blasphemy. We might encounter examples of harmful stereotypes, racially insensitive images, and expressions of cultural and racial superiority. As the College of Visual Arts and Design is devoted to the principle of freedom of expression, artistic and otherwise, it is not the college's practice to censor these works or ideas on any of these grounds. Students who might feel unduly distressed or made uncomfortable by such expressions should consider withdrawing at the start of the term and seeking another course.

Technical assistance

At UNT we have an IT Help Desk that you can contact for help with Canvas or other technology issues.

Email: helpdesk@unt.edu

Live Chat: <https://it.unt.edu/helpdesk/chatsupport>

Phone: 940-565-2324

In Person: Sage Hall, Room 330

Hours and Availability: Visit <https://it.unt.edu/helpdesk> for up-to-date hours and availability.

Acceptable Student Behavior

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at deanofstudents.unt.edu/conduct.

Rules of Engagement

Rules of engagement refer to the way students are expected to interact with each other and with their instructors. These rules will be factored into your final participation grade. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.
- Treat your instructor and classmates with respect, even when their opinion differs from your own.
- Speak from personal experiences. Try not to speak on behalf of groups or another individual's experiences.

- Use your critical thinking skills to respectfully challenge other people’s ideas, instead of attacking individuals.



Student Support Services

UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

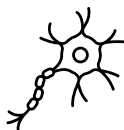
- Student Health and Wellness Center (<https://studentaffairs.unt.edu/student-health-and-wellness-center>)
- Counseling and Testing Services (<https://studentaffairs.unt.edu/counseling-and-testing-services>)
- UNT Care Team (<https://studentaffairs.unt.edu/care>)
- UNT Psychiatric Services (<https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry>)
- Individual Counseling (<https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling>)

Other student support services offered by UNT include

- Registrar (<https://registrar.unt.edu/registration>)
- Financial Aid (<https://financialaid.unt.edu/>)
- Student Legal Services (<https://studentaffairs.unt.edu/student-legal-services>)
- Career Center (<https://studentaffairs.unt.edu/career-center>)
- Multicultural Center (<https://edo.unt.edu/multicultural-center>)
- Pride Alliance (<https://edo.unt.edu/pridealliance>)
- UNT Food Pantry (<https://deanofstudents.unt.edu/resources/food-pantry>)

Academic Support Services

- Academic Resource Center (<https://clear.unt.edu/canvas/student-resources>)
- Academic Success Center (<https://success.unt.edu/asc>)
- UNT Libraries (<https://library.unt.edu/>)
- Writing Lab (<http://writingcenter.unt.edu/>)



Academic Integrity Standards and Consequences

According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic

dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

ADA Accommodation Statement

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website at disability.unt.edu.

Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

Survivor Advocacy

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT's Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim's compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-565-2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at oeo@unt.edu or at 940-565-2759.



Course Requirements & Grade Distribution

Attendance & Participation: 25%

Midterm Essay: 20%

Short Oral Presentations on 2 readings: 15%

Final Project Oral Presentation: 10%

Final Project: 30%

Attendance & Participation

Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. Your Attendance & Participation grade will be lowered by one full letter grade for more than 2 unexcused absences. An excused absence is granted if you are ill or have an urgent reason for being unable to attend class. Appropriate documentation is required (i.e. a doctor's note or proof of a positive Covid test) unless I tell you otherwise. It is important that you communicate with me prior to being absent so we can discuss and mitigate the impact of the absence on your attainment of course learning goals.

Excessive tardiness will count as an absence (3 late arrivals=1 unexcused absence). Do not leave the class while it is in session unless you have an urgent reason.

It is required that each student come to class having completed the required reading and any assignments. You are also expected to participate in class discussions and any in-class or asynchronous activities that are assigned. Additionally, discussion board responses will factor into your participation grade. There will be 10 discussion board questions posted to Canvas throughout the semester, and you should aim to contribute to at least 5 posts in order to maintain an "A" for Participation.

No cell phones shall be visible or audible in the classroom after class begins unless there is an emergency. If you are seen using a phone repeatedly during class without permission, your participation grade will suffer.

Midterm Essay

You must complete a Midterm Essay of at least 1000 words and no more than 1500 words by Wed., October 18. You will have a choice of questions, and they will be provided to you a week in advance. You are allowed to refer to readings and notes and will submit the essay on Canvas.

Oral Presentations on Readings

You will present on 2 readings over the course of the semester. A sign-up sheet will be provided. You must effectively summarize the reading and share your perspective/opinion of the reading. Each presentation must be between 10–15 minutes. More detailed instructions are on Canvas.

Final Project

For your final project, you will have the option of completing a research paper (10–15 pages) or a creative project along with an accompanying statement of 5 pages. I will provide you with more detailed instructions on Canvas. You must review your topic with me during office hours or email your topic to me for approval by 11:59 PM on Wed., Nov. 15. The assignment is due by Wed., Dec. 13 at 5:00 PM. A letter grade will be deducted from the final project grade for each day past the deadline if you are late.

You will also give a short presentation on your final project in class on Wed., December 6. More detailed instructions will be provided.

Grading

A: 90% course average or above. Excellent work produced throughout the semester.

B: 80% course average or above. Good work produced throughout the semester.

C: 70% course average or above. Fair work produced throughout the semester.

D: 60% course average or above. Passing work produced throughout the semester.

F: Failure



COURSE SCHEDULE & READINGS (subject to revision)

Wednesday, August 23: Introduction to the course

Required readings:

- Nancy Rose Marshall, Introduction, *Victorian Science & Imagery: Representation & Knowledge in Nineteenth-Century Visual Culture*, ed. Marshall (Pittsburgh: University of Pittsburgh Press, 2021), 3–27.
- Bob Root-Bernstein, Todd Siler, Adam Brown, and Kenneth Snelson, “ArtScience: Integrative Collaboration to Create a Sustainable Future,” *LEONARDO* 44, no. 3 (2011): 192.
- Nicolai Ouroussoff, “The Soul in the New Machines,” *New York Times*, Feb. 22, 2008.

Recommended readings:

- Robert Scott Root-Bernstein, “On Paradigms and Revolutions in Art and Science: The Challenge of Interpretation,” *Art Journal* 44, no. 2 (1984): 109–18.
- Lorraine Daston, “Fear and Loathing of the Imagination in Science,” *Daedalus* 127, no. 1 (1998): 73–95.
- Jean Trumbo, Ch. 10, “Making Science Visible: Visual Literacy in Science Communication,” in *Visual Cultures of Science: Rethinking Representational Practices in Knowledge Building and Science Communication*, ed. Luc Pauwels (Hanover: Dartmouth College Press, 2006), 266–83.

Wednesday, August 30: Darwin

Required readings:

- Janet Browne, Ch. 1, “Darwin in Caricature: A Study in the Popularization and Dissemination of Evolutionary Theory,” in *Art of Evolution: Darwin, Darwinisms, and Visual Culture*, eds. Barbara Larson and Fae Brauer (Hanover: Dartmouth College Press, 2009), 18–39.
- Jonathan Smith, Ch. 10, “Evolutionary Aesthetics and Victorian Visual Culture,” and Jane Munro, Ch. 11, “‘More Like a Work of Art than of Nature’: Darwin, Beauty, and Sexual Selection” in *Endless Forms: Charles Darwin, Natural Science and the Visual Arts*, eds. Diana Donald and Jane Munro (New Haven and London: Yale University Press, 2009), 237–51; 253–91.
- Caitlin Silberman, Ch. 8, “Darwinian Aesthetics and Aestheticism in James McNeill Whistler’s Peacock Room,” in *Victorian Science & Imagery: Representation & Knowledge in Nineteenth-Century Visual Culture*, ed. Nancy Rose Marshall (Pittsburgh: University of Pittsburgh Press, 2021), 206–26.
- Julia Voss, Ch. 2, “Darwin’s Diagrams: Images of the Discovery of Disorder,” *Darwin’s Pictures: Views of Evolutionary Theory, 1837–1874* (New Haven and London: Yale University Press, 2010), 61–126.

Recommended readings:

- Jonathan Smith, Ch. 4, “Picturing Sexual Selection: Gender and the Evolution of Ornithological Illustration in Charles Darwin's *Descent of Man*,” in *Figuring It Out: Science, Gender, and Visual Culture*, eds. Ann B. Schteir and Bernard V. Lightman (Hanover: University Press of New England, 2006), 85–109.
- Robert Michael Brain, Ch. 4, “Protoplasma: Huxley, Haeckel, and the Vibratory Organism in Late Nineteenth-Century Science and Art,” in *Art of Evolution: Darwin, Darwinisms, and Visual Culture*, eds. Barbara Larson and Fae Brauer (Hanover: Dartmouth College Press, 2009), 92–123.
- Phillip Prodger, *Darwin's Camera: Art and Photography in the Theory of Evolution* (Oxford: Oxford University Press, 2009).
- Diana Donald and Jane Munro, eds., *Endless Forms: Charles Darwin, Natural Science and the Visual Arts* (New Haven and London: Yale University Press, 2009). (rest of book)

Wednesday, September 6: Astronomy

Required readings:

- Simon Schaffer, “On Astronomical Drawing,” and Jonathan Crary, “Attention and Modernity in the Nineteenth Century,” in *Picturing Science Producing Art*, eds. Caroline A. Jones and Peter Galison (New York and London: Routledge, 1998), 441–74; 475–99.
- Omar W. Nasim, “The ‘Landmark’ and ‘Groundwork’ of Stars: John Herschel, Photography and the Drawing of Nebulae,” *Studies in History and Philosophy of Science* 42 (2011): 67–84.
- Mia Fineman, “Daydreams by Moonlight,” in *Apollo's Muse: The Moon in the Age of Photography*, eds. Mia Fineman and Beth Saunders (New York: The Metropolitan Museum of Art, 2019), 71–103.
- Christopher Phillips, Ch. 4, “‘Magnificent Desolation’: The Moon Photographed,” in *Cosmos: From Romanticism to the Avant-Garde*, ed. Jean Clair (Montreal: Prestel and Montreal Museum of Fine Arts, 1999), 144–65.
- David W. Brown, “What the Webb Space Telescope Will Show Us Next,” *The New Yorker*, August 6, 2023: <https://www.newyorker.com/news/the-new-yorker-interview/what-the-webb-space-telescope-will-show-us-next>

Recommended readings:

- Omar Nasim, “Observation, Working Images and Procedure: The ‘Great Spiral’ in Lord Rosse’s Astronomical Record Books and Beyond,” *The British Journal for the History of Science* 43, no. 3 (September 2010): 353–89.
- Omar Nasim, *Observing by Hand: Sketching the Nebulae in the Nineteenth Century* (Chicago: University of Chicago Press, 2013).
- Jennifer Tucker, Ch. 5, “Photographic Evidence and Mass Culture,” *Nature Exposed: Photography as Eyewitness in Victorian Science* (Baltimore: Johns Hopkins University Press, 2005), 194–233.
- Robert Gendler, R. Jay GaBany, *Breakthrough! 100 Astronomical Images That Changed the World* (Springer International Publishing, 2015).

Wednesday, September 13: Air, The Invisible, & The Indeterminate

Required readings:

- Carey Gibbons, Ch. 3, “Grasping the Elusive: Victorian Weather Forecasting and Arthur Hughes’s Illustrations for George MacDonald’s *At the Back of the North Wind*,” in *Victorian Science & Imagery: Representation & Knowledge in Nineteenth-Century Visual Culture*, ed. Nancy Rose Marshall (Pittsburgh: University of Pittsburgh Press, 2021), 79–109.
- Corey Keller, “Sight Unseen: Picturing the Invisible,” *Brought to Light: Photography and the Invisible 1840–1900* (New Haven and London: Yale University Press, 2008), 18–35.
- Steven Connor, Ch. 5, “Transported Shiver of Bodies: Weighing Ether,” *The Matter of Air: Science and Art of the Ethereal* (London: Reaktion Books, 2010), 148–72.
- Richard Noakes, Ch. 6, “Making Space for the Soul: Oliver Lodge, Maxwellian Psychics and the Etherial Body,” in *Ether and Modernity: The Recalcitrance of an Epistemic Object in the Early Twentieth Century*, ed. Jaume Navarro (Oxford: Oxford University Press, 2018), 88–106.
- Kate Flint, Ch. 2, “The Mote Within the Eye,” *The Victorians and the Visual Imagination* (Cambridge: Cambridge University Press, 2000), 40–63.

Recommended readings:

- Steven Connor, Ch. 6, “Haze,” *The Matter of Air: Science and Art of the Ethereal* (London: Reaktion Books, 2010), 175–94.
- Stephen Eisenman, “Ecology and Air Pollution in Nineteenth-Century British Art and Literature,” *Venti* 1, no. 3 (Fall 2020).

Wednesday, September 20: Animals

Required readings:

- Ann Shelby Blum, Ch. 3, “From Naturalist-Illustrator to Artist-Naturalist,” *Picturing Nature: American Nineteenth-Century Zoological Illustration* (Princeton, NJ: Princeton University Press, 1993), 88–118.
- Diana Donald, “‘A Mind and Conscience Akin to Our Own’: Darwin’s Theory of Expression and the Depiction of Animals in Nineteenth-Century Britain,” in *Endless Forms: Charles Darwin, Natural Science and the Visual Arts*, eds. Diana Donald and Jane Munro (New Haven and London: Yale University Press, 2009), 195–213.
- James A. Serpell, Chapter 6, “People in Disguise: Anthropomorphism and the Human-Pet Relationship,” in *Thinking with Animals: New Perspectives on Anthropomorphism*, eds. Lorraine Daston and Gregg Mitman (New York: Columbia University Press, 2005), 121–36.
- Giovanni Aloï, “Nature Documentaries: Representing the Wild,” *Art and Animals* (London and New York: I.B. Tauris, 2012), 12–14.

Recommended readings:

- Gavin Parkinson, Ch. 10, “Emotional Fusion with the Animal Kingdom: Notes Toward a Natural History of Surrealism,” in *Art of Evolution: Darwin, Darwinisms, and Visual Culture*, eds. Barbara Larson and Fae Brauer (Hanover: Dartmouth College Press, 2009), 262–87.
- Cheryce Kramer, Chapter 7, “Digital Beasts as Visual Esperanto: Getty Images and the Colonization of Sight,” in *Thinking with Animals: New Perspectives on Anthropomorphism*, eds. Lorraine Daston and Gregg Mitman (New York: Columbia University Press, 2005), 137–71.
- Ingo Arndt, text by Jurgen Tautz, *Animal Architecture* (New York: Abrams, 2013).

Wednesday, September 27: Flowers + Botanical Illustration
VISIT TO UNT MEDIA LIBRARY! Meet at 5:00 PM at Room 111 Chilton Hall:
<https://library.unt.edu/media/>

Required readings:

- Ann Bermingham, “The Language of Flowers,” *Learning to Draw: Studies in the Cultural History of a Polite and Useful Art* (New Haven and London: Yale University Press, 2000), 202–24.
- Elliot Krasnopoler, “Anna Atkins and the Cyanotype Process,” *Smarthistory*, March 17, 2021: <https://smarthistory.org/anna-atkins-cyanotype/>
- Barbara T. Gates, Ch. 8, “Those Who Drew and Those Who Wrote: Women and Victorian Popular Science Illustration,” in *Figuring It Out: Science, Gender, and Visual Culture*, eds. Ann B. Shteir and Bernard V. Lightman (Hanover: University Press of New England, 2006), 192–213.
- Valerie Padilla Carroll, Introduction, in *Ecofeminism in Dialogue*, eds. Douglas A. Vakoch and Sam Mickey (Lanham: Lexington Books, 2018), 1–12.
- Emma Steinkraus, with Carey Gibbons and Allan McLeod, “Impossible Garden: A Contemporary Artist’s Digital Engagement with Women Artist-Naturalists of the Long Nineteenth Century and Beyond,” *Nineteenth-Century Art Worldwide* 20, no. 3 (Autumn 2021): <https://www.19thc-artworldwide.org/autumn21/steinkraus-impossible-garden-on-women-artist-naturalists>
- Lewis Gordon, “Gardening games are blossoming in turbulent times,” *The Verge*, July 16, 2019: <https://www.theverge.com/2019/7/16/20696253/gardening-games-harvest-moon-animal-crossing-ooblets-cultivation>
- Teresa Castro, Ch. 31, “The 1970s Plant Craze,” and Luce Irigaray and Michael Marder, Ch. 40, “Seeking Refuge in the Vegetal World,” in *Vegetal Entwinements in Philosophy and Art: A Reader*, eds. Giovanni Alois and Michael Marder (London and Cambridge: MIT Press, 2023), 461–77; 573–81.
- Emma Flint, “The Secret Victorian Language That’s Back in Fashion,” *BBC*, October 13, 2022: <https://www.bbc.com/culture/article/20221012-the-flowers-that-send-a-hidden-message>

Recommended readings/listenings:

- Wilfrid Blunt and William T. Stearn, Ch. 22, “The Second Half of the Nineteenth Century,” and Ch. 23, “The Twentieth Century,” *The Art of Botanical Illustration* (London: ACC Art Books, 2021), 264–81; 282–313.
- Ann B. Shteir, Ch. 8, “Flora’s Daughters in Print Culture, 1830–1860,” *Cultivating Women: Cultivating Science* (Baltimore and London: Johns Hopkins University Press, 1996), 196–231.
- Elizabeth Chang, Ch. 4, “Killer Plants of the Late Nineteenth Century,” in *Strange Science: Investigating the Limits of Knowledge in the Victorian Age*, eds. Lara Karpenko and Shalyn Claggett (Ann Arbor: University of Michigan Press, 2017), 81–101.
- John Ingram, *Flora symbolica; or, the Language and Sentiment of Flowers* (London: Frederick Warne and Co.; New York: Scribner, Welford and Co., 1869). <https://archive.org/details/florasymbolica00ingr/mode/1up>
- Kate Greenaway, *Language of Flowers* (London: George Routledge and Sons, 1884). <https://archive.org/details/languageofflower00gree/mode/1up>
- Jessica Roux, *Floriography: An Illustrated Guide to the Victorian Language of Flowers* (Kansas City: Andrew McMeel Publishing, 2020).

- Drawing Blood podcast with Emma Merklings and Christy Slobogin, season 2 episode 4, “Vegetal Agents, Plant-Human Entanglements, and Julia Margaret Cameron’s Photography”: <https://open.spotify.com/episode/0XpN4POaWssPzN1o1Vm3qW?si=1db933d32ee74d9d&nd=1>
- Shelley Wall and David M. Mazierski, Ch. 9, “Observation and Representation: Natural Science Illustration, 1450–1900,” in *History of Illustration*, eds. Susan Doyle, Jaleen Grove, and Whitney Sherman (New York and London: Bloomsbury, 2019), 396–432.
- Gill Saunders, *Picturing Plants: An Analytical History of Botanical Illustrations* (Berkeley and Los Angeles: University of California Press, 1995).
- Helen and William Bynum, *Botanical Sketchbooks* (New York: Princeton Architectural Press, 2017).
- Peter Tompkins and Christopher Bird, *The Secret Life of Plants* (London: Allen Lane, 1974; orig. published in 1973). https://archive.org/details/TheSecretLifeOfPlants_201811
- Alenda Y. Chang, *Playing Nature: Ecology in Video Games* (Minneapolis: University of Minnesota Press, 2019).

Saturday, September 30: Flowers + Botanical Illustration (continued)

FIELD TRIP TO DALLAS ARBORETUM & BOTANICAL GARDEN from 2:00–5:20 PM. Details regarding transportation TBA.

Note that we will not meet at our regular class time on Wednesday, October 4!

Wednesday, October 11: Medical Illustration

UNT Libraries Research Overview with Rebecca Barham

Midterm Essay questions provided

Required readings:

- David M. Mazierski, Ch. 28, “Medical Illustration after Gray’s Anatomy: 1859–Early 2000s,” and Shelley Wall, Ch. 10, “Visualizing Bodies: Anatomical and Medical Illustration from the Renaissance to the Nineteenth Century, 1420–1860,” in *History of Illustration*, eds. Susan Doyle, Jaleen Grove, and Whitney Sherman (New York and London: Bloomsbury, 2019), 1126–69; 434–70.
- Keren Rosa Hammerschlag, Ch. 6, “Drawing Racial Comparisons in Nineteenth-Century British and American Anatomical Atlases,” in *Victorian Science & Imagery: Representation and Knowledge in Nineteenth Century Visual Culture*, ed. Nancy Rose Marshall (Pittsburgh: University of Pittsburgh Press, 2021), 167–88.
- Peter Galison, Ch. 7, “Image of Self,” in *Things That Talk: Object Lessons from Art and Science*, ed. Lorraine Daston (New York: Zone Books, 2008), 256–94.

Recommended readings:

- Christine Slobogin, “‘Something useful in a National sense’: Percy Hennell’s Surgical and Nationalist Colour Photography, 1940–1948,” *Visual Culture in Britain* (2022): 1–19.
- Michelle Millar Fisher and Amber Winick, Introduction and “Pregnancy in Print,” in *Designing Motherhood: Things that Make and Break our Births*, eds. Fisher and Winick (Cambridge and London: MIT Press, 2021), 14–24; 25–28

- Richard Barnett, *The Sick Rose: Disease and the Art of Medical Illustration* (New York: D.A.P., 2004).

Wednesday, October 18: Frankenstein

MIDTERM ESSAYS DUE!

VISIT TO UNT SPECIAL COLLECTIONS + FILM VIEWING!

Meet at 5:00 PM at Special Collections, Room 443, 4th fl., Willis Library

Note: *Frankenstein* oral presentations will happen on Wednesday, October 25!

Required readings:

- Marilyn Butler, “Frankenstein and Radical Science,” in *Frankenstein; or, The Modern Prometheus*, Mary Shelley, ed. J. Paul Hunter (New York: Norton, 1996), 302–12.
- Mary Fairclough, “Frankenstein and the ‘Spark of Being’: Electricity, Animation, and Adaptation,” *European Romantic Review* 29, no. 3 (2018): 399–407.
- Gillen D’Arcy Wood, “The Volcano That Spawned a Monster: Frankenstein and Climate Change,” *Huntington Library Quarterly* 83, no. 4 (Winter 2020): 691–703.
- Anne K. Mellor, “Possessing Nature. The Female in Frankenstein,” *Romanticism and Feminism* (Bloomington: Indiana University Press, 1988), 220–30.

Recommended readings:

- Christopher Frayling, *Frankenstein: The First Two Hundred Years* (London: Reel Art Press, 2017).
 - Mary Shelley, *Frankenstein, or, the Modern Prometheus* (London: H. Colburn and R. Bentley; Edinburgh: Bell and Bradfute, 1831).
- <https://archive.org/details/ghostseer01schiuoft>

Wednesday, October 25: Sci-Fi

Note: *Frankenstein* oral presentations will happen today!

Required readings:

- Steve Holland, Ch. 2, “Book Covers & Magazines,” and Ch. 3, “Comic Books,” *Sci-Fi Art: A Graphic History* (New York: Collins Design, 2009), 40–85; 86–125.
- Dave Addey, “Eurostile,” “The Rules,” and “2001: A Space Odyssey,” *Typeset in the Future: Typography and Design in Science Fiction Movies* (New York: Abrams, 2018), 10–13; 14–17; 18–45.

Recommended readings:

- Steve Holland, *Sci-Fi Art: A Graphic History* (New York: Collins Design, 2009). (rest of book)
- Adam Rowe, *Worlds Beyond Time: Sci-fi Art of the 1970s* (New York: Abrams, 2023).
- Neil Barron, *Anatomy of Wonder: A Critical Guide to Science Fiction* (Westport: Libraries Unlimited, 2004).
- Douglas A. Vakoch, *Ecofeminist Science Fiction: International Perspectives on Gender, Ecology, and Literature* (London: Routledge, 2021).

Wednesday, November 1: Biomimicry and Patterns

Required readings:

- Gill Saunders, “Wallpapers,” in *The Cult of Beauty: The Victorian Avant-Garde 1860–1900*, eds. Lynn Federle Orr and Stephen Calloway (London: V&A, 2011), 134–39.
- Caroline Arscott, “William Morris, Ornament and the Coordinates of the Body,” in *Renew Marxist Art History*, eds. Warren Carter, Barnaby Haran, and Frederic J. Schwartz (London: Art Books Publishing, 2013), 246–56.
- Google Arts & Culture: Women in Art Nouveau:
<https://artsandculture.google.com/story/women-in-art-nouveau-le-carton-voyageur-mus%C3%A9e-de-la-carte-postale/GgXBMa93xyTuLw?hl=en>
- Kevin L. Stayton, Introduction, and Martin Filler, “Building Organic Form: Architecture, Ceramics, Glass, and Metal in the 1940s and 1950s,” in *Vital Forms: American Art and Design in the Atomic Age, 1940–1960*, eds. Brooke Kamin Rapaport and Kevin L. Stayton (New York: Brooklyn Museum of Art and Harry N. Abrams, 2001), 22–35; 122–61.
- Denise K. DeLuca, Ch. 33, “Biomimicry: Nature Inspiring Design,” in *Routledge Handbook of Sustainable Design*, ed. Rachel Beth Egenhofer (London and New York: Routledge, 2018), 459–69.
- Barry Bergdoll, Preface, and Hugh Aldersey-Williams, “Applied Curiosity” (+ Portfolio 2) in *Design and the Elastic Mind, Paola Antonelli* (New York: The Museum of Modern Art, 2008), 8–11; 46–57; 58–79.
- Browse Nervous System website: <https://n-e-r-v-o-u-s.com/>
- Philip Ball, Introduction and Ch. 3, “Spirals,” *Patterns in Nature: Why the Natural World Looks the Way It Does* (Chicago: University of Chicago Press, 2016), 6–11; 78–105.
- Lorraine Daston, Ch. 6, “The Glass Flowers,” in *Things That Talk: Object Lessons from Art and Science*, ed. Daston (New York: Zone Books, 2008), 222–54.

Recommended readings:

- Brooke Kamin Rapaport and Kevin L. Stayton, eds., *Vital Forms: American Art and Design in the Atomic Age, 1940–1960* (New York: Brooklyn Museum of Art and Harry N. Abrams, 2001). (rest of book)
- Filiz Tavşana and Elif Sonmez, “Biomimicry in Furniture Design,” *Procedia - Social and Behavioral Sciences* 197 (2015): 2285–92.
- “Joris Laarman Lab: Design in the Digital Age,” High Museum 2018 exhibition site:
<https://high.org/exhibition/joris-laarman-lab-design-in-the-digital-age/>
- Neri Oxman, “Design at the Intersection of Technology and Biology,” TED talk, October 29, 2015:
https://www.youtube.com/watch?v=CVa_IZVzUoc
- Janine Benyus, “Biomimicry in Action,” TED talk, August 6, 2009:
https://www.youtube.com/watch?v=k_GFq12w5WU&t=168s
- Michael Pawlyn, Ch. 1, “How Can We Build More Efficient Structures?,” *Biomimicry in Architecture*, 2nd edition (London: RIBA, 2016), 9–43.
- Cesare Leonardi and Franca Stagi, *The Architecture of Trees* (Hudson: Princeton Architectural Press, 2019).
- Philip Ball, *Patterns in Nature: Why the Natural World Looks the Way It Does* (Chicago: University of Chicago Press, 2016). (rest of book)
- Hannah Star Rogers, Ch. 2, “Positioning Aesthetic Knowledge: The Blaschka Models,” *Art, Science, and the Politics of Knowledge* (Cambridge and London: MIT Press, 2022), 39–73.

Wednesday, November 8: Fashion + Glenn Adamson lecture at UNT
Meet Annette Becker (Director of UNT's Texas Fashion Collection) in 280 at 5:00 PM.
You will then attend the Glenn Adamson lecture together at 5:30 PM. Once the lecture is finished, you will visit the TFC (<https://tfc.cvad.unt.edu/visit/directions>) with Annette.

Note: Fashion oral presentations will happen on Wednesday, November 15!

Required readings:

- Sonia Ashmore, "Aesthetic Textiles," in *The Cult of Beauty: The Victorian Avant-Garde 1860–1900*, eds. Lynn Federle Orr and Stephen Calloway (London: V&A, 2011), 140–43.
- Emily Gephart and Michael Rossi, Ch. 15, "How to Wear the Feather: Bird Hats and Ecocritical Aesthetics," in *Ecocriticism and the Anthropocene in Nineteenth-Century Art and Visual Culture*, eds. Maura Coughlin and Emily Gephart (New York: Routledge, 2020), 192–207.
- Andrew Bolton, Introduction, in *Wild: Fashion Untamed*, Shannon Bell-Price, and Elyssa Da Cruz (New York: Metropolitan Museum of Art, 2004), 11.
- Amy De La Haye, Ch. 7, "The Twentieth Century: 'A Rose is a Rose is a Rose,'" in *Ravishing: The Rose in Fashion* (New Haven: Yale University Press, 2020), 146–75.
- Andrew Bolton, Introduction, *Manus x Machina: Fashion in an Age of Technology* (New York: The Metropolitan Museum of Art, 2016), 8–15.
- Sabine Seymour, Ch. 7, "Social Fabric," *Fashionable Technology: The Intersection of Design, Fashion, Science, and Technology* (New York: Springer Wien New York, 2009), 138–57.
- Sandy Black, Ch. 23, "Fashion and Science Intersections: Collaborations across Disciplines," in Black, ed., *The Handbook of Fashion Studies* (London and New York: Bloomsbury, 2014), 501–21.
- Miranda Belarde-Lewis, "Wearing the Wealth of the Land: Chilkat Robes and Their Connection to Place," in *Nature's Nation: American Art and the Environment*, eds. Karl Kusserow and Alan C. Braddock (Princeton: Princeton University Art Museum, 2018), 178–87.
- Browse online exhibition for the Bard Graduate Center 2023 exhibition *Shaped by the Loom: Weaving Worlds in the American Southwest*:
<https://exhibitions.bgc.bard.edu/shapedbytheloom/>

Recommended readings:

- Edwina Ehrman, ed., *Fashioned from Nature* (London: V&A, 2018).
- Andrew Bolton, *Alexander McQueen: Savage Beauty* (New York: Metropolitan Museum of Art, 2011).
- Joshua Katcher, *Fashion Animals* (Boston: Vegan Publishers, 2018).

Wednesday, November 15: Fashion (continued); Collection & Display

Note: Fashion oral presentations will happen today!

DEADLINE FOR APPROVAL OF FINAL PROJECT TOPIC!

Required readings:

- Stephen Christopher Quinn, "The Habitat Diorama: Art in the Service of Science," *Windows on Nature: The Great Habitat Dioramas of The American Museum of Natural History* (New York: Abrams, in association with The American Museum of Natural History, 2006), 8–23.
- Sally Gregory Kohlstedt, Ch. 5, "Nature by Design: Masculinity and Animal Display in Nineteenth-Century America," in *Figuring It Out: Science, Gender, and Visual Culture*, eds. Ann B. Scheir and Bernard V. Lightman (Hanover: University Press of New England, 2006), 110–39.

- Samuel J.M.M. Alberti, Ch. 12, “The Museum Affect: Visiting Collections of Anatomy and Natural History,” in *Science in the Marketplace: Nineteenth-Century Sites and Experiences*, eds. Aileen Fyfe and Bernard Lightman (Chicago and London: University of Chicago Press, 2007), 371–403.
- Stefanie Jovanovic-Kruspel, “‘Visual Histories’: Science Visualization in Nineteenth-Century Natural History Museums,” *Museum & Society* 17.3 (November 2019): 404–21.
- Massimiano Bucchi, Ch. 5, “Images of Science in the Classroom: Wall Charts and Science Education, 1850–1920,” in *Visual Cultures of Science: Rethinking Representational Practices in Knowledge Building and Science Communication*, ed. Luc Pauwels (Hanover: Dartmouth College Press, 2006), 90–119.

Recommended readings:

- Michael Anderson, “Raising Standards In Natural History Dioramas: The Background Painting of James Perry Wilson,” *Curator* 43, no. 4 (October 2000): 343–55.
- Joe Kember, John Plunkett, and Jill Sullivan, Introduction, *Popular Exhibitions, Science and Showmanship, 1840–1910*, eds. Kember, Plunkett, and Sullivan (London: Pickering & Chatto, 2012), 1–18.
- Caroline Cornish, Ch. 8, “Botany Behind Glass: The Vegetable Kingdom on Display at Kew’s Museum of Economic Botany,” in *Science Museums in Transition: Cultures of Display in Nineteenth-Century Britain and America*, eds. Carin Berkowitz and Bernard Lightman (Pittsburgh: University of Pittsburgh Press, 2017), 188–213.
- Carla Yanni, *Nature’s Museums: Victorian Science and the Architecture of Display* (New York: Princeton Architectural Press, 2005).
- Michael Rossi, “Fabricating Authenticity: Modeling a Whale at the American Museum of Natural History, 1906–1974,” *Isis* 101, no. 2 (June 2010): 338–61.

Wednesday, November 22: THANKSGIVING BREAK – NO CLASS!

Wednesday, November 29: Collection & Display (continued); Information Graphics & Graphic Design

PEER REVIEW OF FINAL PROJECTS!

Note: Peer review groups will be assigned in class on November 15. You are encouraged to share your final project draft or outline with your group members by Monday, November 27 so they have a chance to review it before class on the 29th.

Required readings:

- Christoph Asendorf, Ch. 9, “Bodies in Force Fields: Design Between the Wars,” in *From Energy to Information: Representation in Science and Technology, Art, and Literature*, eds. Bruce Clarke and Linda Dalrymple Henderson (Stanford: Stanford University Press, 2002), 195–212.
- Peter Hall, “Critical Visualization” and “Portfolio 4,” in *Design and the Elastic Mind*, Paola Antonelli (New York: The Museum of Modern Art, 2008), 120–31; 132–49.
- Nicolas P. Maffei, Ch. 8, “Information Overload: Negotiating Visual Complexity in a Data-rich World,” in *Reading Graphic Design in Cultural Context*, eds. Grace Lees-Maffei and Nicolas P. Maffei (London and New York: Bloomsbury, 2019), 144–58.

Recommended readings:

- Ellen Lupton, *Herbert Bayer: Inspiration and Process in Design* (New York: Cooper Hewitt and Moleskine Books, 2020).
- Jessica Helfand, Chapter 3.2.4, “Electronic Typography: The New Visual Language,” and Peter Hall, Chapter 6.2.4, “Bubbles, Lines, and String: How Information Visualization Shapes Society,” in *The Graphic Design Reader*, eds. Teal Triggs and Leslie Atzmon (London and New York: Bloomsbury, 2019), 392–96; 748–57.
- Sandra Rendgen, ed. Julius Wiedemann, *History of Information Graphics* (Koln: Taschen, 2019).
- Manuel Lima, *The Book of Circles: Visualizing Spheres of Knowledge* (New York: Princeton Architectural Press, 2017).
- Manuel Lima, *The Book of Trees: Visualizing Branches of Knowledge* (New York: Princeton Architectural Press, 2014).
- Manuel Lima, *Visual Complexity: Mapping Patterns of Information* (New York: Princeton Architectural Press, 2011).

Wednesday, December 6: ORAL PRESENTATIONS (10-13 minutes!) ON FINAL PROJECTS!

Wednesday, December 13: FINAL PROJECTS DUE by 5:00 PM!

Note: If you have a physical art/design project, you can drop it off to me in my office (room 206 in the Art Building) on Wed., December 13 between 12:00 and 5:00 PM. I will be in my office to return physical projects on Monday, December 18 between 3:00 and 6:00 pm. If these times don't work with your schedule, please get in touch with me to arrange an alternate time for drop off or pick up.

