# ARTH 4801.002 – Topics in Art History: The Visual Culture of Science, 1800–Today Fall 2023, 3 credits

## Mondays & Wednesdays, 12:30-1:50 PM, ART 280



#### **Professor Contact Information**

Carey Gibbons

Assistant Professor, Art History, CVAD

Office location: Art Building 206

Phone number: 940-565-4777 (Dept. of Art History number – not a direct line)

Email: Carey. Gibbons @unt.edu (much preferred over phone)

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 fine art, illustration, graphic design, and other forms of popular imagery from 1800 to the present. A particular emphasis will be placed on the close relationship between science and visual culture during the nineteenth century. The course will demonstrate how art helps to produce science and science informs art, showing how they are not compartmentalized, separate fields but in continual dialogue with one another. A variety of topics will be explored, including but not limited to landscape painting, botanical and natural history illustration, medical illustration, science fiction illustration and typography, gardening video games, infographics, and astronomical drawings and photography.

#### 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 (both in-person and on Canvas discussion boards), 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 visual culture in connection with different scientific disciplines.
- Students will reach an understanding of the dynamic, fluid relationship between visual culture and science.
- Students will engage in and recognize the value of a cross-disciplinary analysis of art, design, and popular imagery since 1800.
- Students will apply the vocabulary and analytical 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: <a href="https://it.unt.edu/helpdesk/chatsupport">https://it.unt.edu/helpdesk/chatsupport</a>

Phone: 940-565-2324

In Person: Sage Hall, Room 330

Hours and Availability: Visit <a href="https://it.unt.edu/helpdesk">https://it.unt.edu/helpdesk</a> 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/)
- MathLab (https://math.unt.edu/mathlab)



### **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: 10% Participation: 15%

Midterm Multiple Choice Exam: 15%

Midterm Short Essay: 20%

Final Group/Team Oral Presentation: 10%

Final Project: 30%

#### Attendance

Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. Your Attendance 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.

#### **Participation**

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 12 discussion board questions posted to Canvas throughout the semester, and you should aim to contribute to at least 4 in order to maintain an "A" for Participation. If you are not regularly contributing in person to class discussions, you are encouraged to participate more on the Canvas discussion posts.

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 Multiple Choice Exam + Short Essay

You will have a midterm multiple choice exam on Canvas during class time on Wednesday, October 11. The exam will cover important topics from the readings and lectures. You will also complete a short essay of at least 800 words and no more than 1500 words. You will be provided with a choice of questions a week in advance and will need to choose one question to answer. You are allowed to refer to readings and notes for both the multiple choice exam and essay.

## Final Group/Team Oral Presentation

I will assign groups of 3–4 students each, and you will be expected to give a 10 minute presentation on a particular scientific image you found significant and/or meaningful this semester. It can be a work of art, design, or other form of visual culture (i.e. video game, film). Your topic must be approved by Mon., Nov. 27. More details are posted on Canvas.

## **Final Project**

For your final project, you will have the option of completing a research paper (8–10 pages), exhibition proposal, art/design project, or podcast episode. 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.

## 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)

Monday, August 21: Introduction + Syllabus Review

## Wednesday, August 23: Framework for Studying Science + Visual Culture

#### 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.
- Robert Scott Root-Bernstein, "On Paradigms and Revolutions in Art and Science: The Challenge of Interpretation," *Art Journal* 44, no. 2 (1984): 109–18.

#### Recommended readings:

- 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.

## Monday, August 28: The Arctic & Geology

#### Required readings:

- Alison Syme, Ch. 2, "All That Is Solid Melts into Air': Burne-Jones, Glaciation, and the Matter of History," in *Victorian Science & Imagery: Representation and Knowledge in Nineteenth Century Visual Culture*, ed. Nancy Rose Marshall (Pittsburgh: University of Pittsburgh Press, 2021), 56–78.
- Kate Flint, Ch. 5, "Under the Ice," *The Victorians and the Visual Imagination* (Cambridge: Cambridge University Press, 2000), 117–38.

• David Carew Huntington, Introduction, in *Frederic Edwin Church: The Icebergs*, Gerald L. Carr (Dallas: Dallas Museum of Fine Arts, 1980), 9–19. https://texashistory.unt.edu/ark:/67531/metapth176546/#top

## Recommended readings/viewings:

- Chauncey C. Loomis, Ch. 5, "The Arctic Sublime," in *Nature and the Victorian Imagination*, eds. U.C. Knoepflmacher and G.B. Tennyson (Berkeley: University of California Press, 1977), 95–112.
- Caitlin Condell, "After Icebergs at Cooper Hewitt," YouTube video, May 28, 2020: <a href="https://www.youtube.com/watch?v=ZOdLf-Gbdto">https://www.youtube.com/watch?v=ZOdLf-Gbdto</a>

## Wednesday, August 30: The Pre-Raphaelites

#### Required readings:

• Tim Barringer, Ch. 2, "Truth to Nature," *Reading the Pre-Raphaelites* (New Haven: Yale University Press, 1999), 55–83.

## Recommended readings:

- John Holmes, Ch. 1, "The Search after Truth: Art on the Model of Science," *The Pre-Raphaelites and Science* (New Haven and London: Yale University Press), 18–43.
- Anne Helmreich, Ch. 1, "Truth to Nature and the Innocent Eye," Nature's Truth: Photography, Painting, and Science in Victorian Britain (University Park, PA: Pennsylvania State University Press, 2016), 20–77.

## Monday, September 4: LABOR DAY – No Class!

## Wednesday, September 6 – Wednesday, September 13: Darwin & Visual Culture

Required readings (finish by Sept. 13):

- 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.

#### Recommended readings:

• Barbara Larson, Ch. 7, "The Post-Darwinian Eye, Physiological Aesthetics, and the Early Years of Aestheticism, 1860–1876," in Victorian Science & Imagery: Representation & Knowledge in

Nineteenth-Century Visual Culture, ed. Nancy Rose Marshall (Pittsburgh: University of Pittsburgh Press, 2021), 189–205.

- 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.
- 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.
- Phillip Prodger, *Darwin's Camera: Art and Photography in the Theory of Evolution* (Oxford: Oxford University Press, 2009).

## Monday, September 18: Flowers and Plants

#### Required readings:

- Alison Syme, Ch. 1, "La Vie en Rose," A Touch of Blossom: John Singer Sargent and the Queer Flora of Fin-de-Siecle Art (University Park, PA: Pennsylvania State University Press, 2010), 23–69
- 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:

- 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 Merkling and Christy Slobogin, season 2 episode 4, "Vegetal Agents, Plant-Human Entanglements, and Julia Margaret Cameron's Photography": <a href="https://open.spotify.com/episode/0XpN4POaWssPzN1o1Vm3qW?si=1db933d32ee74d9d&nd=1">https://open.spotify.com/episode/0XpN4POaWssPzN1o1Vm3qW?si=1db933d32ee74d9d&nd=1</a>

# Wednesday, September 20 – Wednesday, September 27: Botanical Illustration CLASS VISIT TO MEDIA LIBRARY: Room 111 Chilton Hall:

https://library.unt.edu/media/

9/20: Last names Alejandro-Johnson meet at Media Library. Jones-Wright complete assignment remotely (details TBA).

9/25: Everyone meet in regular classroom (280).

9/27: Last names Jones-Wright meet at Media Library. Alejandro-Johnson complete assignment remotely (details TBA).

Required readings (finish by Sept. 27):

- 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.
- 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.
- Elliot Krasnopoler, "Anna Atkins and the Cyanotype Process," *Smarthistory*, March 17, 2021: <a href="https://smarthistory.org/anna-atkins-cyanotype/">https://smarthistory.org/anna-atkins-cyanotype/</a>
- 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): <a href="https://www.19thc-artworldwide.org/autumn21/steinkraus-impossible-garden-on-women-artist-naturalists">https://www.19thc-artworldwide.org/autumn21/steinkraus-impossible-garden-on-women-artist-naturalists</a>
- Lewis Gordon, "Gardening games are blossoming in turbulent times," *The Verge*, July 16, 2019:

 $\frac{\text{https://www.theverge.com/2019/7/16/20696253/gardening-games-harvest-moon-animal-crossing-ooblets-cultivation}{\text{cossing-ooblets-cultivation}}$ 

• 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 Aloi and Michael Marder (London and Cambridge: MIT Press, 2023), 461–77; 573–81.

#### Recommended readings:

- Valerie Padilla Carroll, Introduction, in *Ecofeminism in Dialogue*, eds. Douglas A. Vakoch and Sam Mickey (Lanham: Lexington Books, 2018), 1-12.
- 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.
- 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.
- 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).
- Daniela Bleichmar, "Visible Empire: Scientific Expeditions and Visual Culture in the Hispanic Enlightenment," *Postcolonial Studies* 12, no. 4 (December 1, 2009): 441–66.
- Daniel Park, "Opinion: Colonialism Shaped Plant Collections. Here's Why That Matters," *Undark*, June 13, 2023:

 $\underline{\text{https://undark.org/2023/06/13/colonialism-shaped-botanical-collections-heres-why-it-matters/}$ 

### Monday, October 2: Plants + Botanical Illustration Recap; 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.
- 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.

## Recommended readings:

- Giovanni Aloi, "Nature Documentaries: Representing the Wild," *Art and Animals* (London and New York: I.B. Tauris, 2012), 12–14.
- 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, October 4: Animals (continued)

## Monday, October 9: Medical Illustration Midterm Essay Questions Provided (Due Oct. 16)

#### Required readings:

- 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.
- David M. Mazierski, Ch. 28, "Medical Illustration after Gray's Anatomy: 1859–Early 2000s," in *History of Illustration*, eds. Susan Doyle, Jaleen Grove, and Whitney Sherman (New York and London: Bloomsbury, 2019), 1126–69.

#### 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.
- 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), 434–70.
- Shelley Wall, "Mid-twentieth-Century Anatomical Transparencies and the Depiction of Three-dimensional Form," *Clinical Anatomy* 23, no. 8 (2010): 915–921.
- Richard Barnett, The Sick Rose: Disease and the Art of Medical Illustration (New York: D.A.P., 2004).

• Historical Anatomies on the Web:

https://www.nlm.nih.gov/exhibition/historicalanatomies/home.html

## Wednesday, October 11

MIDTERM EXAM (Multiple choice on Canvas from 12:30-1:50 PM)

# Monday, October 16: Frankenstein + UNT Libraries Research Overview with Rebecca Barham

MIDTERM ESSAYS DUE (by 11:59 PM)

### 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.

#### Recommended readings:

- Anne K. Mellor, "Possessing Nature. The Female in Frankenstein," *Romanticism and Feminism* (Bloomington: Indiana University Press, 1988), 220–30.
- 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 18 – Monday, October 23: Frankenstein FILM VIEWING & SPECIAL COLLECTIONS VISIT

10/18: Last names Alejandro–Johnson meet at Special Collections, Room 443, 4<sup>th</sup> fl., Willis Library. Jones–Wright watch film (details TBA).

10/23: Last names Jones-Wright meet at Special Collections, Room 443, 4th fl., Willis Library. Alejandro-Johnson watch film (details TBA).

#### Wednesday, October 25: Sci-Fi

#### Required readings:

- Steve Holland, Ch. 2, "Book Covers & Magazines," *Sci-Fi Art: A Graphic History* (New York: Collins Design, 2009), 40–85.
- 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, Ch. 3, "Comic Books," Sci-Fi Art: A Graphic History (New York: Collins Design, 2009), 86–125.
- Adam Rowe, Worlds Beyond Time: Sci-fi Art of the 1970s (New York: Abrams, 2023).

## Monday, October 30: Waves

## 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.

## Recommended readings:

- 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.
- Gillian Beer, Ch. 13, "Wave Theory and the Rise of Literary Modernism," *Open Fields: Science in Cultural Encounter* (Oxford: Clarendon Press, 1996), 295–318.
- Philip Ball, Patterns in Nature: Why the Natural World Looks the Way It Does (Chicago: University of Chicago Press, 2016).
- Anne-Marie Melster, Ocean: Exploring the Marine World (Berlin: Phaidon, 2022).
- Emma Merkling, "The Sensate Body: Consciousness in Albert Moore's Art," *Immediations* 4, no. 3 (2018): <a href="https://courtauld.ac.uk/research/research-resources/publications/immediations-postgraduate-journal/immediations-online/2018-2/emma-merkling-the-sensate-body-consciousness-in-albert-moores-art/">https://courtauld.ac.uk/research/research-resources/publications/immediations-postgraduate-journal/immediations-online/2018-2/emma-merkling-the-sensate-body-consciousness-in-albert-moores-art/">https://courtauld.ac.uk/research/research-resources/publications/immediations-online/2018-2/emma-merkling-the-sensate-body-consciousness-in-albert-moores-art/">https://courtauld.ac.uk/research/research-resources/publications/immediations-online/2018-2/emma-merkling-the-sensate-body-consciousness-in-albert-moores-art/</a>
- George Henry Lewes, *The Physiology of Common Life* (London: William Blackwood and Sons, 1859), vol. 1.

https://archive.org/details/physiologycommo05lewegoog/mode/1up

• George Henry Lewes, *The Physiology of Common Life* (London: William Blackwood and Sons, 1860), vol. 2.

https://archive.org/details/b28109247/

• George Henry Lewes, *The Physical Basis of Mind* (London: Trübner & Co., 1893). https://archive.org/details/b28065049

## Wednesday, November 1: Waves (cont.); Information Graphics & Graphic Design

## 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.

## Recommended readings:

- Ellen Lupton, *Herbert Bayer: Inspiration and Process in Design* (New York: Cooper Hewitt and Moleskine Books, 2020).
- 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).

# Monday, November 6: Information Graphics & Graphic Design (cont.); Class time to work on team presentations

### Wednesday, November 8: CLASS CANCELLED

## Monday, November 13: Astronomy

#### Required readings:

- 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.
- Simon Schaffer, "On Astronomical Drawing," in *Picturing Science Producing Art*, eds. Caroline A. Jones and Peter Galison (New York and London: Routledge, 1998), 441–74.
- 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.
- David W. Brown, "What the Webb Space Telescope Will Show Us Next," *The New Yorker*, August 6, 2023: <a href="https://www.newyorker.com/news/the-new-yorker-interview/what-the-webb-space-telescope-will-show-us-next">https://www.newyorker.com/news/the-new-yorker-interview/what-the-webb-space-telescope-will-show-us-next</a>

### Recommended readings:

- Omar Nasim, Observing by Hand: Sketching the Nebulae in the Nineteenth Century (Chicago: University of Chicago Press, 2013).
- 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.
- Robert Gendler, R. Jay GaBany, *Breakthrough! 100 Astronomical Images That Changed the World* (Springer International Publishing, 2015).

# Wednesday, November 15: Visualizing the Microscopic & Indeterminate Deadline for Final Project Topic Approval!

## Required readings:

- Jennifer Tucker, Ch. 4, "Photography of the Invisible," *Nature Exposed: Photography as Eyewitness in Victorian Science* (Baltimore: Johns Hopkins University Press, 2005), 159–93.
- 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.
- Isobel Armstrong, Ch. 12, "Microscopic Space," Victorian Glassworlds: Glass Culture and the Imagination 1830–1880 (Oxford: Oxford University Press, 2008), 317–28.
- Christina Bradstreet, Ch. 5, "Scent, Memory, Visions," *Scented Visions: Smell in Art*, 1850–1914 (University Park: Pennsylvania State University Press, 2022), 117–45.

## Recommended readings:

- Steven Connor, Ch. 5, "Transported Shiver of Bodies: Weighing Ether," and Ch. 6, "Haze," *The Matter of Air: Science and Art of the Ethereal* (London: Reaktion Books, 2010), 148–72; 175–94.
- Kate Flint, Ch. 2, "The Mote Within the Eye," *The Victorians and the Visual Imagination* (Cambridge: Cambridge University Press, 2000), 40–63.
- Stephen Eisenman, "Ecology and Air Pollution in Nineteenth-Century British Art and Literature," *Venti* 1, no. 3 (Fall 2020).
- Sylvia Pamboukian, "Looking Radiant': Science, Photography and the X-Ray Craze of 1896," *Victorian Review* 27, no. 2 (2001): 56–74.

## Monday, November 20 & Wednesday, November 22 - THANKSGIVING BREAK!

## Monday, November 27: Modern Art & Science Deadline for Team Presentation Topic Approval!

#### Required readings:

- Charles Sirato, "Dimensionist Manifesto" (Paris, 1936)
- Linda Dalrymple Henderson, Ch. 2, "The Dimensionist Manifesto and Multivalent Fourth Dimension in 1936: Sirato, Delaunay, Duchamp, Kandinsky, and Prampolini," in *Dimensionism: Modern Art in the Age of Einstein*, ed. Vanja V. Malloy (Amherst and Cambridge: Mead Art Museum and MIT Press, 2018), 49–69.

#### Recommended readings:

- Alan C. Braddock, "Vital Forms: Modernist Biocentrism," in *Nature's Nation: American Art and the Environment*, eds. Braddock and Kusserow (Princeton: Princeton University Art Museum, 2018), 322–55.
- Linda Dalrymple Henderson, Ch. 11, "Umberto Boccioni's *Elasticity*, Italian Futurism and the Ether of Space," in *Ether and Modernity: The Recalcitrance of an Epistemic Object in the Early Twentieth Century*, ed. Jaume Navarro (Oxford: Oxford University Press, 2018), 200–24.
- Robin Veder, *The Living Line: Modern Art and the Economy of Energy* (Hanover: Dartmouth College Press, 2015).

## Wednesday, November 29: Contemporary Art & Science

#### Required readings:

- Stephen Wilson, Introduction, Art + Science Now: How Scientific Research and Technological Innovation are Becoming Key to 21<sup>st</sup> Century Aesthetics (New York: Thames and Hudson, 2012), 6–17.
- Laura Steward Heon, "Unnatural Science," *Unnatural Science: An Exhibition, Spring 2000–Spring 2001* (North Adams, MA: MASS MoCA Publications, 2000), 8–15.
- Andy Battaglia, "15 Essential Works of Land Art, from Great Salt Lakes to Dusty Fields of Lightning," *ARTnews*, April 1, 2020: <a href="https://www.artnews.com/feature/essential-works-land-art-1202682741/">https://www.artnews.com/feature/essential-works-land-art-1202682741/</a>
- Lynn Trimble, "New Generation of Land Artists Embodies a Call for Action," *Hyperallergic*, July 14, 2022: <a href="https://hyperallergic.com/725251/new-generation-of-land-artists-embodies-a-call-for-action/">https://hyperallergic.com/725251/new-generation-of-land-artists-embodies-a-call-for-action/</a>
- Alan C. Braddock and Karl Kusserow, "An Interview with Mark Dion," in *Nature's Nation: American Art and the Environment*, eds. Braddock and Kusserow (Princeton: Princeton University Art Museum, 2018), 188–95.

#### Recommended readings:

- Stephen Wilson, Art + Science Now: How Scientific Research and Technological Innovation are Becoming Key to 21<sup>st</sup> Century Aesthetics (New York: Thames and Hudson, 2012) (rest of book).
- Giovanni Aloi and Susan McHugh, *Posthumanism in Art and Science* (New York: Columbia University Press, 2021).
- Giovanni Aloi, Why Look at Plants? The Botanical Emergence in Contemporary Art (Leiden: Brill Rodopi, 2019).

## Monday, December 4: FINAL TEAM PRESENTATIONS All teams must submit presentations on Canvas by 10:00 AM. Only first 6 teams (A–F) will present today.

Wednesday, December 6: LAST DAY OF CLASS! FINAL TEAM PRESENTATIONS Last 6 teams (G-L) will present today.

#### **NOTE: OPTIONAL QUIZ!**

From December 4–8, an additional quiz will be available on Canvas to those who would like to take it. It will be the same format as the midterm multiple choice exam but only 25 questions. It will only cover material after the midterm. You can take it anytime from December 4–8, but it will be timed at 1 hour and 20 minutes. Like the midterm, you can consult notes, class slides, and readings, but you're not allowed to collaborate with anyone else.

If you take the December quiz, your new midterm multiple choice exam grade will become an average of the two scores. If your December quiz grade turns out to be lower than your midterm multiple choice grade, then it will not count.

## 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.

