



Aesthetics and Cognitive Science, CSES 221b (JE)

Wednesday, 2:30-4:30, JE L23

Yale University, Spring 2010

Professor William Seeley

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Office Hours: W 1-2 (location TBA) or email for an appointment

I can also almost always be found on the ice at The Whale every Wednesday between 11:30 and 12:30.

Bring your skates!!!

Course Description:

An examination of philosophical issues associated with interdisciplinary research in aesthetics and cognitive science. The aim of the course is to introduce students to the interdisciplinary field of cognitive science and to investigate the role psychology and cognitive neuroscience can play in explanations of art and aesthetic experience. The first part of the course introduces central concepts in aesthetics and the philosophy of art and the general methodology underlying research in aesthetics and cognitive science. The second part of the course examines whether an understanding of the perceptual relationship between viewers and works of visual art can play a role in explanations of art and aesthetic experience.

see <http://abacus.bates.edu/~wseeley/AeCS.html> for syllabi for this course from previous years.

Course Goals:

1. Provide a general understanding of the objectives and interdisciplinary methods of cognitive science via their application in explanations of art and aesthetic experience.
2. Provide students with a background in philosophical aesthetics sufficient to enable them to evaluate research at the junction of the philosophy, psychology, & cognitive neuroscience of art.
3. Provide students from within the humanities with an introduction to some key issues in contemporary vision science.

Requirements:

Class participation is a requirement and will be worth 10% of your final grade. Students will be required to write: a 4-page paper early in the semester on an assigned topic (20%); a 6-page mid-term paper on an assigned topic (30%); and a 10-12 page final paper on a topic of their choosing (40%); and eight 350 word reading responses. Completion of the reading response papers and attendance are the minimum requirement for satisfactory class participation. Students must see me to discuss the topic of their term papers by the end of week 10. The goal of these assignments is to encourage the student to think through the problems of aesthetics and the philosophy of art on their own.

Texts: All of the material on the syllabus is included in a *Course Packet* available through YaleRIS except:

- journal articles available online as indicated on the syllabus
- supplementary readings on reserve in Bass Library

****This course does not presuppose any specialized knowledge of cognitive science or philosophy. The majority of the readings are drawn from philosophical aesthetics and scientific review articles. Students will not be expected to be able to evaluate the experiments or data presented in these papers. We will discuss how to interpret the salient results in class. Our interest is in the value of the arguments provided in the texts for each of the theories under consideration.**

Requirements: All assignments should be handed in electronically via the Classes server. Reading response papers are due Tuesday at 5pm the week they are assigned. All other assignments must be handed in by 5pm Friday the week they are due. Students will be required to write:

- A short 4-page paper (1200 words) on one of two assigned topics due week 5. (20%)
- A 6-page (1800 words) mid-term paper on one of two assigned topics due week 8. (30%)
- A 12 page term paper (3600 words) on a topic of your own choice due week 13. You must meet with me to discuss your topic by the end of week 10. (40%)
- This course is a seminar. The pace and content of our discussions should, ideally, be student driven. Students are expected to come prepared to participate in discussion each day and class participation will factor into your grade. In order to facilitate class discussion each student will be asked to post a reading response (350 words) to the webpage for our seminar on the Classes server by **Tuesday at 5pm** during weeks when no other assignment is due. (10%)

Some Miscellaneous Notes and Guidelines: Moral behavior is the grounds for, and the framework of, a healthy society. In this regard it is each of our responsibility as individuals within the community of our classroom to act responsibly. This includes following the rules and guidelines set out by Yale University for academic behavior. Plagiarism is a serious matter. It goes without saying that each of you is expected to do his or her own work and to cite EVERY text that is used to prepare a paper for this class. In general philosophy papers are NOT research papers. Your preparations for papers and presentations should focus on material from the syllabus, assigned supplemental readings, and class discussion.

The written assignments are designed to give you a chance to stretch your legs a bit while you learn about aesthetics & cognitive science (and to give me a chance to assess your understanding of the material). Your job for each of the writing assignments is to offer a defense of your take on the issue at hand. However, this does not mean that the papers are a free forum for opinions. Make sure that your discussions remain focused on the philosophical problems that surround the assigned question or topic.

There is some flexibility built in to the reading schedule so that we can spend more time on issues that are of particular interest to you. I will occasionally suggest supplementary materials for students who want to pursue particular issues beyond class discussion. I also reserve the right to modify the syllabus as needed to accommodate our interests as a group.

Finally, please come see me at the beginning of the semester to discuss athletic schedules, extracurricular activities, or any accommodations you might need for the class work.

Assignments: All assignments are to be handed in electronically *via the Classes server*.

Class Participation – Every student is required to post a 350 word (double-spaced in 12 point font with 1” margins) reading response to the class webpage each week for which there is not already an assignment due (eight 1-page papers).

Due Date: Tuesdays @ 5pm weeks 2, 3, 4, 7, 10, 11, 12

Project 1: First Paper - Please write a 4 page (1200 word) paper on one of the following topics. Your paper should be double-spaced in 12 point font with 1” margins. The purpose of this assignment is to critically evaluate a central argument from our discussions of the general methodology of aesthetics and cognitive science.

Due Date: Week 5, Friday @ 5pm

Paper Topic (1a):

Evaluate Gombrich's critique of the writings of John Ruskin and Roger Fry in his paper “The Analysis of Vision in Art.” What does Gombrich's argument teach us about artists methods? How does his notion of "making and matching" inform our understanding of the relationship between perception, art, and aesthetic experience?

Paper Topic (1b):

Zeki's thesis concerning the relationship between vision and art can be construed as both a perceptual and an aesthetic hypothesis. Does Livingstone's discussion of Mona Lisa's enigmatic expression suffice as a case study to establish neuroaesthetics as an aesthetic hypothesis?

Project 2: Midterm Paper - Write a 6 page paper (1800 word) on one of two topics to be announced on the distribution date for the midterm. Your paper should be double-spaced in 12 point font with 1” margins. The purpose of this paper is to demonstrate that you can synthesize the range material covered in the 1st half of the semester into a coherent position.

Due Date: Week 8 (class prior to March break)

Topics Distributed: Week 6

Project 3: Final Paper Write a 12 page (3600 word) paper on a topic of your choosing. Your paper might focus on the critique of a position, the solution to a problem, or the evaluation of a debate within cognitive neuroscience of visual art. You might also undertake a discussion of an area you find under represented in the literature. All students need to see me to discuss paper topics by the end of week 10.

Topic Meeting: You must meet with me to discuss your topic by the end of week 10.

Due Date: Week 13

COURSE OUTLINE AND READINGS (330 pages):

A. Aesthetics and Cognitive Science :

Session 1. Introductory Lecture:

The goal of this session is to introduce students to key concepts and the basic model for interdisciplinary research in aesthetics and cognitive science:

- a) a philosophical definition of **aesthetics** as the study of sensory cognition and the phenomenal character of experiences associated with artworks.
- b) a discussion of the basic distinction between **theories of aesthetics** and **theories of art**.
- c) a definition of **interpretation** as the use of background art historical and cultural knowledge to determine the **meaning**, of a work of art.
- d) **a basic philosophical conflict** between aesthetic theories of art and the role of interpretation in our engagement with artworks: it has been argued that what differentiates artworks from ordinary artifacts is not the phenomenal content of aesthetic experience, but rather the way viewers interpret their meanings.
- e) a general model for the contributions of **memory and attention** to perception:
 - general knowledge of the structure and function of objects, the nature of events, and the perceptual demands of particular tasks shapes the way we see our environment.
 - therefore the contributions of background art historical and cultural knowledge cannot be so easily separated from the phenomenal content of aesthetic experiences.
- f) a definition within aesthetics and cognitive science of artworks as **perceptual strategies** intentionally designed to direct attention to features responsible for the aesthetic effects and semantic associations that are constitutive of their status as a work of art.
- g) a question: does the definition of artworks as perceptual strategies provide a means to resolve the objection to aesthetic theories of art raised in (d).

Recommended Readings:

- Ellen Winner (1982). The Puzzle of Art. Invented Worlds. Cambridge, MA: Harvard University Press, 1-12. (psychology) (**CP**) & **ON RESERVE IN BASS LIBRARY**
- Noël Carroll (1999). Introduction. The Philosophy of Art. New York: Routledge, 1-17. (philosophy)

Session 2. Some Background in Aesthetics: Aesthetic Experience and Interpretation:

The goal of this session is to examine in detail: a) the central notion of aesthetic theories of art (i.e. that what individuates artworks from ordinary objects is the unique phenomenal character of aesthetic experience), and b) the objection that aesthetic theories of art cannot adequately account for the role of interpretation in aesthetic experience.

READING RESPONSE DUE TUESDAY @ 5PM

READINGS:

- Clive Bell (1913/1981). The Aesthetic Hypothesis. Reprinted in (eds.) G. Dickie, R. Sclafani, & R. Roblin, Aesthetics. New York: Bedford/St. Martin's, pp. 73-83. (philosophy)
- Arthur Danto (2001). The Work of Art and the Historical Future. The Madonna of the Future, Berkeley: University of California Press, pp. 416-431. (philosophy)

Session 3. The Analysis of Vision in Art:

The goal of this session is to introduce the following claims about painting: a) visual artists derive the content of their works from a careful examination of the underlying structure of natural appearances; b) viewers reconstruct the representational content of these works from visual cues derived from this examination; however c) there is no preferred set of image cues for producing even a realistic landscape painting, rather artists choose their formal vocabularies and compositional strategies relative to the aesthetic effects they intend their works to produce; as result, d) an understanding of how artworks work as perceptual stimuli should also explain how they work to produce aesthetic experiences.

READING RESPONSE DUE TUESDAY @ 5PM

READINGS:

- E. H. Gombrich (1960). *The Analysis of Vision in Art*. Art and Illusion. Princeton, New Jersey: Princeton University Press, pp. 291-329. (art criticism) **(CP) & ON RESERVE IN BASS LIBRARY**
- Ellen Winner (1982). What's in a Picture? (excerpts). Invented Worlds. Cambridge, MA: Harvard University Press, pp. 81-95; 98-104. (psychology) **(CP) & ON RESERVE IN BASS LIBRARY**

Recommended Readings:

- John Ruskin (1857/2001). footnote, p. 27. The Elements of Drawing. Mineola, New York: Dover Publishers Inc., pp. 27-29. (art criticism)
- Roger Fry (1919/1981). *An Essay in Aesthetics*. Vision and Design, Mineola, New York: Dover Publishers Inc., pp. 12-27. (art criticism)
- Stephen E. Palmer (1999). Classical theories of Vision. Vision Science: Photons to Phenomenology, Cambridge, MA: MIT Press , pp. 46-59. (psychology text book) **ON RESERVE IN BASS LIBRARY**

Session 4. Neuroaesthetics:

Semir Zeki claims that a) the function of art is analogous to the function of vision, b) artists are intuitive neurophysiologists whose works and formal vocabularies reveal an understanding of the mechanisms and processes of early vision, and c) an investigation of correlations between the formal structure of artworks and the operation of the early visual cortex can serve as the foundation for a biologically based theory of art. The goal of this session is to evaluate two case studies that illustrate Zeki's claims with an eye to Gombrich's analysis of the role of vision in art.

READING RESPONSE DUE TUESDAY @ 5PM

READINGS:

- Semir Zeki (1999). Inner Vision (excerpts). New York: Oxford University Press, pp. 1-21. (neuroscience)
- Richard Latta (1995). Beauty and the Eye of the Beholder (excerpt). In (eds.) R. Gregory, J. Harris, P. Heard, & D. Rose, The Artful Eye. New York: Oxford University Press, pp. 66-74. (neuroscience)
- Margaret Livingstone (2002). Vision and Art: The Biology of Seeing (excerpt). New York: Harry N. Abrams, pp. 68-73. (neuroscience)
- E. H. Gombrich (1995). The Story of Art (excerpt). New York: Phaidon, Press, pp. 300-303. (art criticism)

Recommended Readings:

- Semir Zeki & Moutoussis Lamb (1994). The Neurology of Kinetic Art. Brain, 117, pp. 607-636. (neuroscience - perspectives article) <http://www.neuroesthetics.org/pdf/kinetic.pdf>
- E. R. Kandel, J. H. Schwartz, & T. M. Jessell (1999). Perception of Motion, Depth, and Form. Principles of Neural Science, 4th Edition. New York: McGraw-Hill, pp. 548-571. (neuroscience textbook) **ON RESERVE IN BASS LIBRARY**

Session 5: Aesthetics in the 18th Century

Neuroaesthetics is an aesthetic theory of art that rests on a set of assumptions embedded in our commonsense, or folk view of art. The goal of this session is to investigate these assumptions by introducing students to the concept of *disinterestedness* and the 18th century origins of contemporary aesthetic theory.

FIRST PAPER DUE FRIDAY @ 5PM

READINGS:

- Gottfried Leibniz (1684/1989). Meditation on Knowledge, Truth, and Ideas. In eds. R. Ariew and D Garber, Philosophical Essays. Indianapolis: Hackett Publishing Company, pp. 23-27. (philosophy)
- Moses Mendelssohn (1757/1997). On the Main Principles of Science and Art. In ed. D. O. Dahlstrom, Philosophical Writings. New York: Cambridge University Press, pp. 169-191. (philosophy) **(CP) & ON RESERVE IN BASS LIBRARY**
- Immanuel Kant (1790/1989). Critique of Judgment (excerpts). In (eds.) G. Dickie, R. Sclafani, and R. Roblin, Aesthetics: A Critical Anthology, New York: Bedford/St Martin's, pp. 287-305. (philosophy)

Recommended Readings

- Paul Guyer (1996). Kant and the Experience of Freedom (excerpts). New York: Cambridge University Press. (philosophy) **(CP) & ON RESERVE IN BASS LIBRARY**
 - Chapter 2: The Dialectic of Disinterestedness, pp. 50-74; 81-93
 - Chapter 4: The Perfections of Art, 131-141; 148-160.

Session 6: Aesthetics & the Philosophy of Art

The goal of this session is to introduce the contemporary philosophical idea that our engagement with artworks is underwritten by a special aesthetic attitude whose defining feature is *disinterested attention*.

READING RESPONSE DUE TUESDAY @ 5PM

READINGS: (7 pages)

- Jerome Stolnitz (1960). The Aesthetic Attitude. In (eds.) G. Dickie, R. Sclafani, & R. Roblin, Aesthetics: A Critical Anthology, New York: Bedford/St Martin's pp. 334-341. (philosophy)

Session 7: Discussion, What is the value of Neuroaesthetics as a theory of art?

The goal of this session is to a) evaluate the concept of *disinterestedness* as a defining feature of an aesthetic theory of art and b) evaluate the potential contribution research in cognitive science can make to philosophical theories of art and aesthetics.

READING RESPONSE DUE TUESDAY @ 5PM

READINGS: (27 pages)

- Noël Carroll (1991). Beauty & the Genealogy of Art Theory. Philosophical Forum, 22(4), 307-334. (philosophy)

B. Art, Meaning, & Perception

Session 8: Art & Meaning

The goal of this session is to a) revisit objections to aesthetic theories of art, b) explore the relationship between the formal and compositional structure of an artwork and its meaning, and c) introduce the idea that the purpose of the formal and compositional structure of an artwork is to direct attention to features responsible for its artistically salient effects (e.g., aesthetic effects or semantic associations that determine its meaning).

MIDTERM PAPER DUE FRIDAY @ 5PM

READINGS: (21 pages)

- Arthur Danto (2000). Art and Meaning. In ed. Noël Carroll, Theories of Art Today. Madison, WI: University of Wisconsin, Press, pp. 130-140. (philosophy)
- Noël Carroll (1999). What is Artistic Form? The Philosophy of Art. New York: Routledge, pp. 137-148. (philosophy).

Session 9: Art, Meaning, & Intention

The goal of this session is to a) discuss the role artists' intentions play in our interaction with artworks and b) introduce a related debate within the philosophy of art between *actual* and *hypothetical intentionalism*.

READING RESPONSE DUE TUESDAY @ 5PM

READINGS:

- Noël Carroll (2001). Intention and Interpretation: The Debate Between Hypothetical and Actual Intentionalism. Reprinted in Beyond Aesthetics. New York: Cambridge University Press, pp. 306-317. (philosophy)
- Jerry A. Fodor (1993). Déjà vu all over again: How Danto's Aesthetics Recapitulates the Philosophy of Mind. In ed. Mark Rollins, Danto and His Critics. Malden, MA: Blackwell Publishers, pp. 41-54. (philosophy)

Session 10: Artworks & Attentional Strategies

The goal of this session is to a) explore the idea that the purpose of the formal and compositional structure of an artwork is to direct attention to features responsible for its artistically salient effects in greater detail and b) further discuss the role artists' intentions play in our interaction with artworks.

READING RESPONSE DUE TUESDAY @ 5PM

READINGS: (26 pages)

- Mark Rollins. (2004). What Monet Meant: Intention and Attention in Understanding Art (excerpt). Journal of Aesthetics and Art Criticism, 62(2), pp. 175-188. (philosophy – cognitive science)
<http://www.jstor.org/stable/1559201>

Session 11: Memory, Attention, and Perception

The goal of this session is to a) develop an understanding of the sorts of visual processes that support Rollins' model for artworks as attentional strategies, b) discuss the ways that goals, expectations, and background knowledge can shape how we see objects and events in our environment, and c) investigate whether these effects generalize to the influence of background knowledge on our engagement with artworks.

READING RESPONSE DUE TUESDAY @ 5PM

READINGS: (19 pages)

- Stephen E. Palmer (1999). Four Stages of Visual Processing. Vision Science: Photons to Phenomenology, Cambridge, MA: MIT Press , pp. 85-92. (psychology text book)
- William Thompson and Steven Kosslyn (2000) "Neural Systems Activated during Visual Mental Imagery," in eds. Arthur W. Toga and John C. Mazziotta, Brain Mapping: The Systems, New York: Academic Press, pp. 535-540. (neuroscience - review article)
- Michael F. Land and Mary Hayhoe, M. (2001). In what ways do eye movements contribute to everyday activities? Vision Research, Special Issue on Eye Movements and Vision in the Natural World, 41, 3559-3566. (psychology - review article)
<http://www.psy.utexas.edu/psy/faculty/Hayhoe/pdfs/Land.pdf>

Recommended Reading

- David Marr and H. K. Nishihara (1978). Visual Information Processing and the Sensorium of Sight. *Technology Review*, 81, 2-23. (computer science)
- Mary Hayhoe and Dana Ballard (2005). Eye Movements in Natural Behavior. *Trends in Cognitive Sciences*, 9(4), pp. 188-194. (psychology - review article)
<http://www.psy.utexas.edu/psy/faculty/Hayhoe/pdfs/hayhoe.pdf>

Session 12: Memory, Attention, and Perception

The goal of this session is to explore the ideas introduced in Session 10 in greater detail with an eye to the way memory and attention shape seeing.

READING RESPONSE DUE TUESDAY @ 5PM

READINGS: (22 pages)

- Marvin Chun & Renée Marois (2002). The Dark Side of Visual Attention. Current Opinion in Neurobiology, 12(22), pp. 1-6. (neuroscience - review article)
http://camplab.psych.yale.edu/articles/Chun_02CONB.pdf
- Sabine Kastner (2004). Attentional Response Modulation in the Human Visual System. In (ed.) Michael Posner, The Cognitive Neuroscience of Attention. New York: The Guilford Press, pp. 144 -156. (neuroscience - review article)
- Mika Koivisto & Antti Revonsuo (2007). How Meaning Shapes Seeing. Psychological Science, 18(10), pp. 845-849. (psychology - research report)
<http://www3.interscience.wiley.com/cgi-bin/fulltext/118505433/PDFSTART>

Supplemental Reading (emotion & attention)

- Ralph Adolphs (2004). Emotional Vision. *Nature Neuroscience*, 7(11), pp. 1167-1168. (neuroscience)
<http://www.nature.com/neuro/journal/v7/n11/pdf/nn1104-1167.pdf>
- Patrik Vuilleumier (2005). How Brains Beware: Neural Mechanisms of Emotional Attention. *Trends in Cognitive Sciences*, 9(12), pp. 585-594. (neuroscience)
http://labnic.unige.ch/nic/papers/PV_TICS2005.pdf

Discussion: Art, Meaning, & Perception

The goal of this session is to a) evaluate Rollins model for the relationship between art, meaning, and perception in light of the research discussed on the role of memory and attention in perception, and b) evaluate the general model for aesthetics & cognitive science introduced in the first half of the semester in light of this discussion of the relationship between art, meaning, and perception.

FINAL PAPER DUE FRIDAY @5PM

READINGS:

- Noël Carroll, Margaret Moore, and William P. Seeley (2010). The Philosophy of Art and Aesthetics, Psychology, and Neuroscience: Studies in Literature, Music, and Visual Art (*excerpt*). In Arthur P. Shimamura & Stephen E. Palmer (Eds.), *Aesthetic Science: Connecting Minds, Brains, and Experience*. New York: Oxford University Press. (philosophy - cognitive science)
<http://abacus.bates.edu/~wseeley/publications.htm>

	Date	Readings	Assignments
1	01/13	[Winner, "The Puzzle of Art," 1-12.] <i>(CP)</i> & <i>(Bass)</i> [Carroll, <i>The Philosophy of Art</i> , 1-17.] <i>(CP)</i>	
2	01/20	- Bell, "The Aesthetic Hypothesis," 73-83. <i>(CP)</i> - Danto, "The Work of Art and the Historical Future," 416-431. <i>(CP)</i>	Response
3	01/27	- Gombrich, "The Analysis of Vision in Art," 291-329. <i>(CP)</i> & <i>(Bass)</i> - Winner, "What's in a Picture?" 81-95; 98-104. <i>(CP)</i> & <i>(Bass)</i>	Response
4	02/03	- Zeki, <i>Inner Vision</i> (excerpts), 1-21. <i>(CP)</i> - Latto, "The Brain of the Beholder" (excerpt), 66-74. <i>(CP)</i> - Livingstone, <i>Vision and Art</i> (excerpt), 68-73. <i>(CP)</i> - Gombrich, <i>The Story of Art</i> (excerpt), 300-303. <i>(CP)</i>	Response
5	02/10	- Leibniz, "Meditation on Knowledge, Truth, and Ideas," 23-27. <i>(CP)</i> - Mendelssohn, "On the Main Principles of Science and Art," 161-191. <i>(CP)</i> - Kant, " <i>Critique of Judgment</i> (excerpts), 287-305. <i>(CP)</i> [Guyer, <i>Kant and the Experience of Freedom</i> (excerpts), 50-74, 81-93, 131-141, 148-160]. <i>CP</i> & <i>(Bass)</i>	First Paper Due: Friday 5pm
6	02/17	- Stolnitz, "The Aesthetic Attitude," 334-341. <i>(CP)</i>	Mid-term Topics Distributed
7	02/24	- Carroll, "Beauty and the Genealogy of Art Theory," 307-334. <i>(CP)</i>	Response
8	03/03	- Danto, "Art and Meaning," 306-317. <i>(CP)</i> - Carroll, "What is Artistic Form," 137-148. <i>(CP)</i>	Midterm Paper Due: Friday 5pm
	03/10 - 03/21	SPRING BREAK	
9	10/06	- Carroll, "Intention and Interpretation," 306-317. <i>(CP)</i> - Fodor, "Déjà-vu All Over Again," 41-54. <i>(CP)</i>	
10	10/08	- Rollins, "What Monet Meant," 175-188. <i>(Onl)</i>	Response Final Paper Topic Discussions
11	10/13	- Palmer, "Four Stages of Visual Processing," 85-92. <i>(CP)</i> & <i>(Bass)</i> - Thompson & Kosslyn, "Neural Systems Activated During Visual Mental Imagery," 535-540. <i>(CP)</i> - Land and Hayhoe, "In What Ways Do Eye Movements Contribute to Everyday Activities," 3559-3566. <i>(Onl)</i>	Response
12	10/14	- Chun & Marois, "The Dark Side of Visual Attention," 1-6. <i>(Onl)</i> - Kastner, "Attentional Response Modulation," 155-156. <i>(CP)</i> - Koivisto & Revonsuo, "How Meaning Shapes Seeing," 845-849. <i>(Onl)</i>	Response
13	10/15	Carroll, Moore, & Seeley, "The Philosophy of Art, Aesthetics, and Neuroscience" (excerpt), 26-38. <i>(Onl)</i>	Final Paper Due: Friday 5pm

[readings in square-brackets are recommended]. See full syllabus above for a complete list of recommended readings.
(CP) = course packet available through YaleRIS, the Yale Bookstore, and on reserve in Bass Library.
(Onl) = available online via the link listed above in the full syllabus.
(Bass) = on reserve in Bass Library