

***Art, Science, Technology:
Historical Perspectives***

HOS 599: Special Topics in the History of Science

Spring 2011; Tuesdays, 9am-11:50pm

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How have the visual arts and the sciences interacted in the modern period? In what ways have those interactions served to define and defy boundaries between empirical investigation and expressive creativity? Where is the most significant contemporary work in this area, and to what extent is this work informed by or indifferent to historical tradition? In this seminar we will take up these questions and others through a course of readings in primary and secondary sources from the Renaissance to the present day.

**WEEK 1:
Introduction and Organizational Meeting
(no reading)**

**WEEK 2:
The Status of the Object**

Bruno Latour, *We Have Never Been Modern* (Cambridge: Harvard University Press, 1993).

Miguel Tamen, *Friends of Interpretable Objects* (Cambridge: Harvard University Press, 2004).

Examine:

Bruno Latour and Peter Weibel, eds., *Iconoclash* (Karlsruhe, Germany: ZKM/Center for Art and Media, 2002).

Lorraine Daston, ed., *Things That Talk: Object Lessons from Art and Science* (New York: Zone, 2004).

**WEEK 3:
The Idea of Aesthetics**

David Summers, *The Judgment of Sense: Renaissance Naturalism and the Rise of Aesthetics* (Cambridge: Cambridge University Press, 1987).

Examine:

Thomas DaCosta Kaufman, *The Mastery of Nature: Aspects of Art, Science, and Humanism in the Renaissance* (Princeton: Princeton University Press, 1993).

WEEK 4:
Perspective: Rationality, Geometry, and the Visible World

Martin Kemp, *The Science of Art: Optical Themes in Western Art from Brunelleschi to Seurat* (New Haven: Yale, 1990). Focus on parts one and two.
Erwin Panofsky, *Perspective as Symbolic Form* (New York: Zone, 1993).

Examine / Be Aware of:
Samuel Y. Edgerton, *The Heritage of Giotto's Geometry* (Ithaca: Cornell, 1993).

WEEK 5:
Hand and Head: Vernacular Epistemologies

Pamela Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago: University of Chicago Press, 2006).

Examine / Be Aware of:
Pamela O. Long, "Power, Patronage, and the Authorship of *Ars*: From Mechanical Know-how to Mechanical Knowledge in the Last Scribal Age," *Isis* 88 (March 1997): 1-41.

WEEK 6:
Collecting, Organizing, Representing

David A. Freedberg, *The Eye of the Lynx: Galileo, his Friends, and the Beginnings of Modern Natural History* (Chicago: University of Chicago Press, 2002).

Examine / Be Aware of:
Paula Findlen, "Inventing Nature: Commerce, Art, and Science in the Early Modern Cabinet of Curiosities," in *Merchants and Marvels: Commerce, Science, and Art in Early Modern Europe*, edited by Pamela H. Smith and Paula Findlen (New York: Routledge, 2002): 297-323.

M I D T E R M

WEEK 7:
Darkness and Light

Michael Baxandall, *Shadows and Enlightenment* (New Haven: Yale, 1995).

Examine / Be Aware of:
Victor Stoichita, *A Short History of the Shadow* (London: Reaktion, 1997).
E.H. Gombrich, *Shadows: The Depiction of Cast Shadows in Western Art* (London: The National Gallery, 1995).

WEEK 8: The Matter of Color

John Gage, *Color and Meaning: Art, Science, and Symbolism* (Berkeley: University of California Press, 1999).

Martin Kemp, *The Science of Art: Optical Themes in Western Art from Brunelleschi to Seurat* (New Haven: Yale, 1990). Part three.

Max Doerner, *The Materials of the Artist* (New York: Harvest, 1984 [1931]).

Examine / Be Aware of:

John Gage, *Color and Culture: Practice and Meaning from Antiquity to Abstraction* (Berkeley: University of California Press, 1993).

WEEK 9: Image and Knowledge

Lorraine Daston and Peter Galison, *Objectivity* (New York: Zone, 2007).

Examine / Be Aware of:

Caroline A. Jones and Peter Galison, eds., *Picturing Science, Producing Art* (New York: Routledge, 1998).

WEEK 10: The Culture of the Eye

Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture* (Cambridge: MIT, 2001).

Examine / Be Aware of:

Jean Clair, ed., *L'âme au corps: arts et sciences, 1793-1993* (Paris: Gallimard, 1993).

Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge: MIT, 1990).

WEEK 11: Space, Time, Modernism

Linda Henderson, *The Fourth Dimension: Non-Euclidian Geometry in Modern Art* (Princeton: Princeton University Press, 1983).

Examine / Be Aware of:

Stephen Kern, *The Culture of Time and Space, 1880-1918* (Cambridge: Harvard University Press, 1983).

WEEK 12:
A Flickering Tradition

Brandon W. Joseph, *Beyond the Dream Syndicate: Tony Conrad and the Arts After Cage*
(New York: Zone, 2008).

Examine / Be Aware of:

Oliver Grau, *Virtual Art: From Illusion to Immersion* (Cambridge: MIT, 2004).
Stephen Wilson, *Information Arts* (Cambridge: MIT, 2004).