

Course Title: The Artistic Eye: Vision and the History of Art

Course Code: ARTH 52

Instructor Name and Bio: Michael F. Marmor

Marmor received his AB and MD from Harvard. He has been at Stanford for 45 years as a Professor of Ophthalmology and Human Biology, now emeritus. He taught retinal physiology and disease in the medical school, and art and the eye to undergraduates in the Program in Human Biology. He has written hundreds of scientific papers and 4 books on art, with the latest (*The Artistic Eye*) just coming out. He has helped to curate exhibits at the Cantor Museum of Stanford and the Musée Marmottan in Paris.

Class Sessions and Recording

Meeting days and times: Tuesdays 7-8:50 pm, April 18-May 23.

Meeting location: Lectures will be On-Campus (details will be shared with registered students prior to first class meeting)

The class sessions will not be recorded.

Course Features

- Live sessions. Lecture and discussion with the class
- Assignments & Coursework
 - Recommended assignments are chapters in the instructor's book. These are not required, but they will supplement or further explain lecture information.
- The instructor will not hold office hours but will talk after class as needed. On a personal basis extra time can be arranged before or after class.

Course Summary

The course is intended for anyone with an interest in art, and an interest in how vision works. Specific art or scientific background is not required, although prior experience won't hurt. Many artists will be introduced and discussed, providing a broad introduction to great art. And the course provides a basic description of how vision begins (and is processed) in the eye. These properties of vision create the power of contrast, and the complexity of seeing colors, both of which affect how artists work and how we see art. The objective is equally to broaden understanding of human vision, and to enhance the appreciation of art.

Grade Options and Requirements

- No Grade Requested (NGR)
- Credit/No Credit (CR/NC) Students must attend 5 out of 6 class sessions (and will require signing an attendance sheet).

Textbooks/Required Materials

The textbook is the instructor's book *The Artistic Eye* (2023). The book elaborates on the course material, and is recommended to enhance the learning experience. But there are no required assignments.

First Assignment

Nothing is required, although the first chapters of the textbook will be a useful introduction.

Tentative Weekly Outline

The course will basically follow the textbook material, covering roughly 2 chapters per week, although this may vary as lectures and discussion evolve.

Week 1: Chapters 1-2

Course introduction. Structure and optics of the eye. Did El Greco have astigmatism? Does myopia create Impressionism? Did Rembrandt need reading glasses? How about the ancient Greeks? Do you really need depth perception? Paintings by "The Squinter" and Dürer. Perspective through the centuries, Roman frescos, the Dark Ages, Brunelleschi's discovery in Florence, Masaccio, architectural painting, and of course Trompe l'Oeil. Different cultures display depth differently, such as in Asian art, Mughal miniatures and modern work by Hockney and cubists.

Week 2: Chapters 3-4

Illusions in art, including confusions of shading, filling-in, recognition, patterns and impossible figures. Is Op Art by Escher or Bridget Riley really art, or just visual psychology? How about surrealism? Why do eyes in portraits seem to follow you? How does the retina create contrast? Leonardo and the special power of contrast in art, exemplified by Vermeer vs. de Hooch, and some odd features of Seurat. Some clues to Mona Lisa's smile lie within the retina. Is chiaroscuro good or bad in works by Caravaggio and the lady Gentileschi? Mach bands make illusory patterns or create light and dark in daily life, in shadows, and in Asian brush paintings.

Week 3: Chapters 5-6

What is different between night and day vision? Compare Whistler's nocturnes and sunny paintings. Why does a tunnel look black on a sunny day—yet we survive driving inside? How a painting can be realistic in any kind of lighting: compare *The Potato*

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365 Lasuen St., Stanford, CA 94305
continuingstudies@stanford.edu
650-725-2650

Eaters to snowy landscapes. This leads to useful tricks for seeing art in a museum. Magritte turns expectations upside down. The history of shadows is messy, and rules are violated by giants such as van Gogh, Monet, and Renoir. Consider how we recognize colors: they are not merely a hue, they are often a secondary sensation, they don't serve reading. Colors can change character with blending, can jar us, or can shimmer in work by Monet, Seurat, Kirchner, and Warhol.

Week 4: Chapters 7-8

Color had special meaning for Turner who followed formulas for choosing them and read Goethe (who actually wrote a book about color). Seurat tried to mix colors scientifically (pointillism), but discovered problems. Van Gogh loved brilliant colors, but was he also influenced by drugs? Matisse thought color was supreme over objects, and tried many different approaches to serve that belief. What happens when color is minimized, or an artist has poor color vision ("color blindness")? Can they still paint; is it obvious in their work? Consider Bandinelli in the Renaissance, Constable, Meryon, Milton, and Hammershøi.

Week 5: Chapters 9-10

Vision changes normally with age, but when is this disease? Is there an "aged style" of painting? What can we learn from Hals, Titian, Rembrandt, Cezanne, and others. Late eye diseases include changes in the tears, glaucoma and cataracts. Pissarro saw well, but was confounded by tearing. Glaucoma is the "thief of sight"—but what does it do to art? Cataracts are common in older years; they been removed surgically for millenia—but not always so well. Examples include the Divine Rosalba (Carriera), Cassatt, Thurber and Monet. Simulations help us to understand the artist's challenge from cataracts.

Week 6: Chapters 11-12.

Retina can become damaged in a number of conditions. "Age-related macular degeneration" is most common, but also tumors (Reynolds) and hemorrhage (Munch, who drew pictures of his own disease). Macular degeneration caused O'Keeffe to give up painting. Degas' had a more chronic progressive macular disorder, and his late works barely resemble the early ones. Simulations again help to us appreciate what this meant. Is sculpture immune to visual loss, being tactile? On a different note, why was Monet disabled by cataract while Beethoven wrote great works while totally deaf? Course conclusions.