

# What Art Can Tell Us About the Brain

Margaret Livingstone, PhD

Wednesday March 22 in Math and Sciences 208

Talk at 4:00, followed by a reception



*This is a non-technical talk intended for the general public – all are welcome!*

**Artists have been experimenting with vision longer than neurobiologists.** Major works of art have provided insights into how we see; some can be understood in terms of the underlying biology. Picasso said, “Colors are only symbols. Reality is to be found in luminance alone.” This reflects a functional division of our visual systems, with color processed by the newer, primate-specific What system, and luminance processed by the older, colorblind, Where system. I will explore how segregation of color and luminance processing may explain why Impressionist paintings may seem to shimmer, why some op art paintings seem to move, some principles of Matisse’s use of color, and how the Impressionists painted “air.” I will show how differences in resolution across our visual field make the Mona Lisa’s smile elusive and produce dynamic illusions in Pointillist paintings. I will explore how artists have intuited our brains’ processing of faces and objects, and will discuss why learning disabilities may be associated with artistic talent.



**Margaret Livingstone** is the Takeda Professor of Neurobiology at Harvard Medical School. Along with pioneering work in neuroscience, she has explored ways in which neuroscience can understand and inform art. Her book, *Vision and Art*, has sold over 30,000 copies. She is known in the art world as a scientist who can communicate with artists and art historians. She has presented this work to audiences as diverse as Pixar Studios, the Metropolitan Museum of Art, the National Gallery, The Hirshhorn Museum, The Museum of Fine Art, AAAS, and the Leakey Foundation, as well as countless college and university audiences.

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See <http://nbb.emory.edu/events/> for details of Dr. Livingstone’s visit.