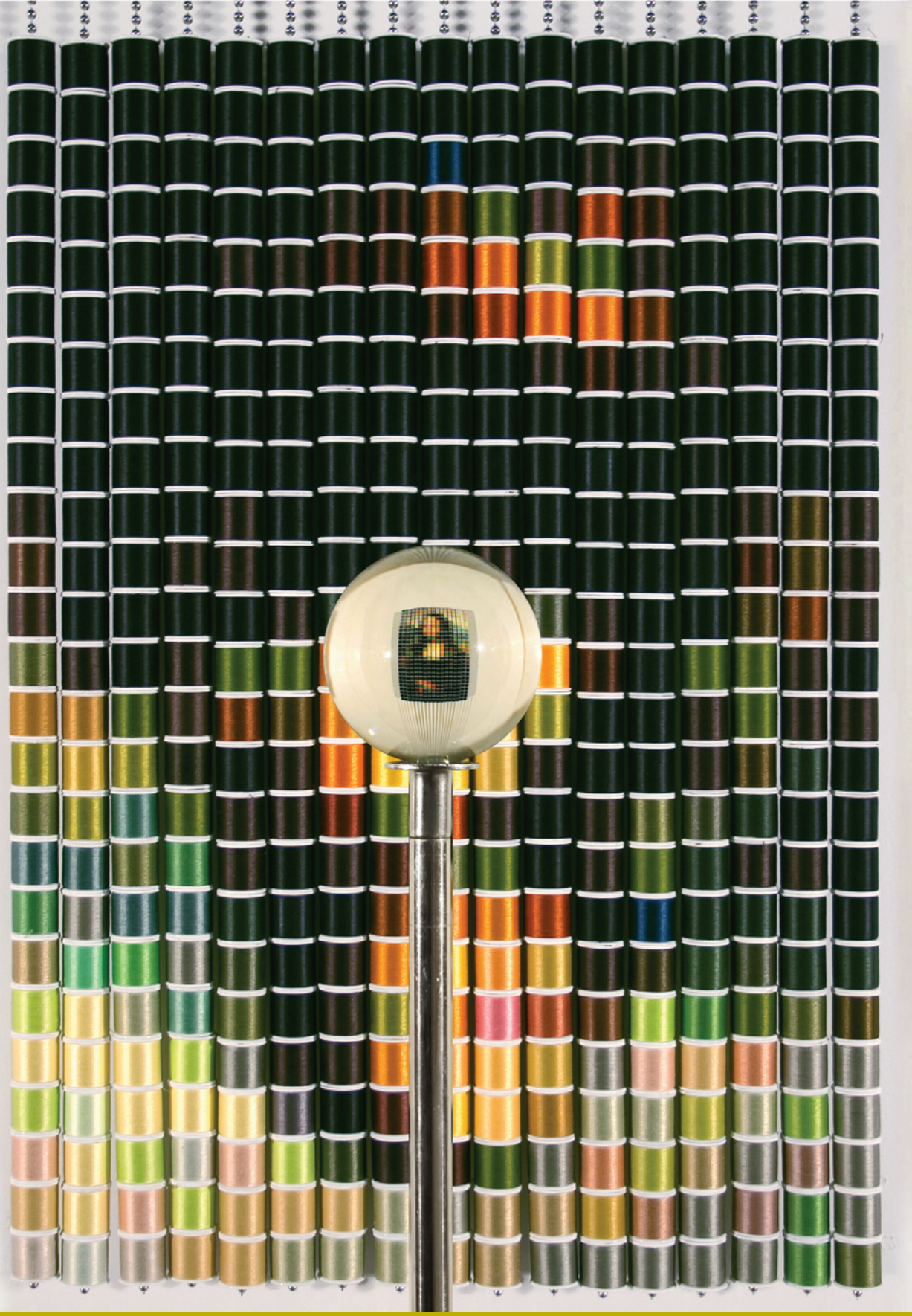

Devorah Sperber (American, born 1961). *After The Mona Lisa 1,* 2005. 425 spools of thread, aluminum ball chain and hanging apparatus, clear acrylic sphere, steel stand, 30 x 21 in. Collection of the artist

Educator packet for the special exhibition

The Eye of the Artist: The Work of Devorah Sperber

on view at the Brooklyn Museum, January 26–May 6, 2007

After The Mona Lisa 1

Looking To See—Art Meets Science

Content recommended for Middle and High School students

Description

This is a mixed-media installation with two components that help the viewer "see" and understand what he or she is seeing. The first component is made of colorful spools of thread arranged in what appears to be an abstract shape against a wall. This part of the installation is small and hangs on metal chains. The second component is a clear acrylic sphere on a stand about ten feet away from the wall. It looks like a crystal ball, and its effect is also magical: as you look through it, you see the *Mona Lisa.* When you look again without the apparatus, you now see an upside-down and blurry *Mona Lisa,* which you hadn't seen before. How did this happen? The sphere turns the image right side up, and your brain quickly works to condense and organize the spools of thread (pixels[1]) into an image you will recognize.

Artist Background

Devorah Sperber began her artistic career as a stone carver in Colorado; she then moved to New York, where she now creates installation art.[2] She uses computers to make pixelated[3] renditions of well-known paintings, constructing her three-dimensional versions from simple materials such as pen caps, chenille pipe cleaners, and spools of thread. To help the viewer "see" the original image, an optical device, like a mirror or sphere, is strategically placed in the installation.

Sperber's artwork is about how we see the world. Our perception of reality is subjective even on a biological level: the brain cannot assemble more than one image at a time unless it is primed through experience.

[1] Pixel: A single point in a graphic image

[2] Installation art: The use of almost any media to create a visceral and/or conceptual experience in a particular space

[3] Pixelated: Describes an image in which individual pixels are apparent to the naked eye

Questions for Viewing

Devorah Sperber creates installation art. She uses different materials to create images and installs them in a particular space. In this photograph of her installation *After Mona Lisa 1,* there is an image in the background; in the foreground there is an optical device on a stand. Take a moment to look closely at the installation.

What is going on in this image? Sperber uses everyday objects in her art such as pen caps, stickers, crystal beads, and pipe cleaners. What objects do you recognize in this image?

Compare and contrast the image in the background with the image in the sphere. How are they different? What surprises you about what you see?

To create three-dimensional pixels, Devorah Sperber uses materials that are uniform in shape, come in a variety of colors, and are readily accessible. Why do you think spools of thread work so well to represent pixels? If you could choose a material to represent a pixel, what would you choose and why?

Classroom Activities

Inquiry: Optics

As early as the 1400s, artists were using optical devices such as mirrors and lenses to create realistic paintings. Sperber uses a variety of optical devices in her artwork. Look around your classroom. What reflective surfaces can you find? Some examples are spoons, windows, mirrors, and even a fishbowl filled with water. Experiment with how an object appears when reflected in the different surfaces you find.
Class assignment: Research how the structure of the eye allows humans to see images right side up.

Darkroom Art

Materials needed: black posterboard, duct tape, a blank lens (available at an eyeglass store), scissors, drawing paper, and pencil.

Create a *camera obscura* (Latin for "dark room") in your classroom. Tape posterboard over the windows to block out all light entering the room. Cut a 1-inch diameter hole in one of the pieces of posterboard; tape a blank lens over the hole so that outside light filters through the lens. An image of the objects outside your window (trees, cars, birds flying, people walking) will be projected upside down on the opposite wall. Tape sheets of paper against

this wall and trace the projected images onto the paper with pencil. Once you have a good amount on your paper, open up the windows or go outside and draw more details from observation. Add color to your drawings and hang them around your classroom to bring the outside world inside.

Debate: Seeing vs. Knowing

"The relation between what we see and what we know is never settled."
—John Berger *(Ways of Seeing,* p. 7. See Resources.)

Form two debate teams and one panel of judges. As a class, make a list of criteria for a strong argument (Is there supporting evidence? Did the team use both the artwork and the quote to come to a conclusion?).

Compare and contrast *After Mona Lisa 1* to Berger's statement. Do you agree or disagree that Devorah Sperber's work supports Berger's idea about "seeing"? Outline an argument with supporting visual evidence and even scientific evidence if needed. Judges decide which team wins. Have fun!

Resources

Berger, John. *Ways of Seeing.* London: The British Broadcasting Corporation and Penguin Books Ltd, 1972. This book comments on how history, culture, and media affect the way we see the world.

Hockney, David. *Secret Knowledge: Rediscovering the Lost Techniques of the Old Masters.* New York: Viking Studio, 2001. This book explores the possible use of optical devices by artists living and working in Western Europe from 1300 to 1900. It is a great resource for quality color images.

Livingstone, Margaret. *Vision and Art: The Biology of Seeing.* New York: Harry N. Abrams, 2002. This book discusses the science behind art, and what determines how we see and respond to color.

The following Web site has information on Devorah Sperber, images of her artwork, and articles about both her artistic and scientific interests: *www.devorahsperber.com*

The Eye of the Artist: The Work of Devorah Sperber is organized by the Brooklyn Museum.