

# explore PLACES

Classroom Resources

**World Views: Maps in Art**

**Topography: Dry Head Agate #9  
(Detail 1), 1995**



Cindy Bernard (United States, b. 1959)  
*Topography: Dry Head Agate #9 (Detail 1)*, 1995  
Chromogenic development (Ektacolor) print  
30 x 40 in. (unframed)  
LACMA, Ralph M. Parsons Fund, AC1995.67.  
Photo ©2002 Museum Associates/LACMA

*If you look at walls that are stained or made of different kinds of stones and imagine some kind of scene . . . you can think you see in them certain picturesque views of mountains, rivers, rocks, trees, plains, broad valleys, and hills of different shapes.<sup>1</sup>*

*Leonardo da Vinci, 1492*

When Cindy Bernard created this image of a landscape, she hoped viewers would get confused. Although the image includes details of the colors and forms of the landscape, other details—like those that would help you figure out the scale or nature of this place—are missing. Bernard wanted viewers to use their imaginations to bring it to life.

Imagine yourself in the landscape depicted in the photograph. What is it like to be there? Do you picture the place as very large, like the Grand Canyon, or very small?

## **Inspired by a Stone**

Cindy Bernard writes that she got the idea for this artwork by looking closely at "picture rocks," stones in which the natural colors and patterns resemble figures, animals, or landscapes. To make this artwork, Bernard first took a close-up photograph of the surface of a small agate, a stone with multicolored stripes. The stone was only about the size of your thumb, and the picture she found in the colored markings was even tinier.

Bernard used a computer program called Bryce to create the simulated three-dimensional landscape you see here. She scanned the photograph of the agate into the computer, and the software created a virtual landscape

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based on the light and dark areas of the photograph. Finally, she used the software to "map" (or transfer) the color photograph of the agate onto the "wire frame" model. Then she printed the final image as a color photograph. Through this process, Bernard transformed the tiny image she found on the stone into an image of a three-dimensional landscape.

- Take a close look at something familiar and try to see it in a new way. For example, look at the textures in the palm of your hand or in a stone. Use a magnifying glass so you can really see the details.  
Can you imagine a landscape of hills, valleys, rivers, and plains? Make a drawing to record what you see.

### **What is Topography?**

Like a topographic map, this artwork uses color and shading to give the impression of variations in elevation, or height. Many topographic maps use contour lines to show changes in height. The closer the lines, the steeper the mountain. Another way to show differences in height is to use color, light, and shadows as if the sun were shining, creating the appearance of a three-dimensional landscape.

- Take a close look at the photograph to see why it looks three-dimensional. Which features look as if the sun is shining on them? Which appear to be in shadow?
- Obtain a United States Geological Survey (USGS) map of your area. What features can you locate? Find the highest and lowest points. Does it look anything like Bernard's image?

### **New Technology, New Maps**

Cindy Bernard used a scanner and 3-D imaging technology to create this image. Currently, researchers in almost every field are using computer technology to represent information in new ways—and to create new kinds of maps. For example, neurologists are using digital technology to create maps of how the human brain functions. (See <http://www.brainmapping.org/>) Geneticists around the world are working together to create maps of human genes. Like other mapmakers, scientists creating maps must make aesthetic choices, such as which colors to use, depending on what patterns and other information they want to highlight.

- See what you can find out about the latest developments in mapping made possible with computer technology, such as brain mapping, mapping the human genome, or Geographic Information Systems.

<sup>1</sup> Quoted on Cindy Bernard's website (<http://home.earthlink.net/~cbernard/CBTopographies.html#picture stones>).

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