

## Balancing Act

Grade level K–2

### Curricular Connections

Math / Visual Arts

### Artist

Dorothy Dehner (American, 1901–1994)

Born in Cleveland, OH

Worked in NY, NY

### Artwork

*Fortissimo*, 1993, fabricated aluminum painted black, 19'4" x 4'6" x 4'6", Museum Purchase with funds provided by the Judith Rothschild Foundation, and Gift of the Dorothy Dehner Foundation for the Visual Arts, Inc.



Although Dorothy Dehner is associated with the first generation of Abstract Expressionist artists, she did not receive recognition for her achievements until the 1960s. During her early twenties, Dehner studied modern dance, theater, piano, and poetry. After a year of traveling independently in Europe where she encountered Cubism and Constructivism, Dehner enrolled in the Art Students League in New York, concentrating in drawing. It was in New York that she met and married sculptor David Smith. This relationship overshadowed her own artistic development and it was not until after her separation from Smith that Dehner began creating abstract, totemic sculptures like *Fortissimo*.

Dehner's work draws on her experiences, travels, and the different phases of her artistic and development which continued into her nineties. Her sculptures use abstract and geometric symbols to communicate content that while private, has universal implications. According to the artist, she wanted "to express my feelings and thoughts, and to distill them so they will be pristine and clear and come back to me . . . with a new life they never had when inside me." Dehner transferred the literal translation of *fortissimo*, meaning in a very loud manner, typically referring to sound or music, to express her own visual art practice. The sculpture was based on a small bronze Dehner made in the 1970s entitled *Fist*. Twenty years later at the age of ninety-two, Dehner used this design on a much larger scale with painted black aluminum to express the fortitude she demonstrated throughout her life.

### Goals

1. Students will learn to carefully view and describe *Fortissimo*.

2. Students will learn the concept of balance and discuss how *Fortissimo* is balanced. Students will identify geometric shapes and use visualization, spatial reasoning, and geometric modeling to create balanced sculptures.

### Vocabulary

- **Abstract art:** Imagery or art that departs from the representational or realistic.
- **Geometric shapes:** Any shape or form having more mathematic than organic design. Geometric designs are typically made with straight lines or shapes from geometry such as circles, triangles, squares, and rectangles.
- **Two-dimensional:** Having height and width, but no depth.
- **Three-dimensional:** Having or appearing to have height, width, and depth.
- **Balance:** The way that objects or images are arranged to create a feeling of stability.

### Looking Questions

- Describe the overall shape or form of this sculpture.
- What specific shapes do you see in this sculpture? What shapes don't you see in this sculpture?
- What colors do you see in this sculpture? How does the color of the sculpture compare with the colors in the surrounding natural landscape?
- Is this sculpture smaller or larger than you are? How can you tell?
- If you could touch this sculpture, how do you think it might feel?

### Discussion Questions

- The title of this sculpture, *Fortissimo*, represented courage and strength to Dehner. What do these words mean to you? How does this sculpture represent strength? What title would you give this sculpture if you could name it?
- *Fortissimo* is made out of pieces of metal. How do you think all the pieces of this sculpture are held together? How would this sculpture change if it were made out of Styrofoam?
- What does it mean if something is balanced? Do you think this sculpture is balanced? Why?

### Activity

- Students will explore the concept of balance through physical and visual activities.

### Materials

- Sets of wooden building blocks or small pieces of wood
- Tacky glue
- Acrylic paint
- Paint brushes, various sizes

### Directions

1. Discuss the concept of balance with your class. Students can also explore balance by standing on one foot, imagining a see-saw, or holding a book on one's head.

2. As a class, students will watch the teacher demonstrate the process of building a balanced, small-scale, vertical sculpture out of wooden blocks.
3. In small groups, students will work on building a balanced, small-scale, vertical sculpture out of wooden blocks. Presenting their sculpture to the class, each group will describe the struggles and solutions they encountered in trying to achieve balance.
4. Individually, students will create their own sculpture using wooden pieces and tacky glue. Once dry, students may paint and title their sculpture.

### Reflection Questions

- Which shapes were easy to balance and which were difficult? Why do you think this was so?
- How might it be different to work on a sculpture as large as *Fortissimo*?

### Resources

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#### Websites

Geometry through Art: What Children Can Learn about Art and Geometry  
<http://mathforum.org/~sarah/shapiro/>

Math Forum at Drexel  
<http://mathforum.org/>

The Math Forum is a research and educational enterprise at Drexel University.

#### Books

*MathArts: Exploring Math through Art for 3 to 6 Year Olds*, MaryAnn F. Kohl and Cindy Gainer, Gryphon House, 1996 (ISBN: 0876591772)

*Math Curse*, Jon Scieszka and Lane Smith, Viking Books, 1995 (ISBN: 0670861944)

### Extensions

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- **Science:** Discuss and classify the material Dorothy Dehner used to create *Fortissimo*, the material students used to create their own sculpture, and a variety of other possible materials for sculpture, natural or synthetic.
  - Standard E3: Technology. Abilities to distinguish between natural objects and objects made by humans.
- **English Language Arts:** Write a concrete poem about *Fortissimo* to share with someone who has never seen the sculpture. A concrete poem is one that takes the shape of the object it describes.
  - Standard 5. Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

- **Social Studies:** *Fortissimo* is described as a totemic image. Discuss this term and then list examples of totemic imagery from different cultures and religions.
  - Standard I. Culture