MICHAEL DILLON'S

AILERON

Arts Education Guide

MCCABE PARK - 101 46TH AVENUE NORTH - NASHVILLE, TN 37243

METRO ARTS

A PROJECT FUNDED BY THE METROPOLITAN NASHVILLE ARTS COMMISSION

Description of the Work

Representing the biplane of the early 20th century, this 18' tall 25' wide sculpture captures upward movement in the supporting structure as well the actual movement of the wing in a 360-degree horizontal wind activated motion.

Adorning the landscape this forged iron structure is tied to the industrial railroad history in the materials used and the building process. The artist uses the same equipment and techniques that were used in the manufacturing of these steam-powered beasts that used to roam the landscape. The three supporting elements of the base are brought together with traditional blacksmith joinery. The metal is spilt down the center, opened up, and shaped to receive a connection pin. It is then secured as one unit through heating and hammering the ends of the pin. The wing is depicted in flight, slightly tilting skyward toward the heavens. Built from bronze, the two wings reflect the traditional materials used by the Arts and Craft movement and other traditional builders that flourished in the architecture of the area.

Description of McCabe Park & Site

Located in West Nashville in the Sylvan Park area, McCabe Park offers a variety of recreational options. The park includes a community center (completed 2011), a driving range, a 27-hole golf course and greenway path. Aileron is located at the intersection of all of these uses, just west of the entrance at the intersection of 46th Avenue North and Murphy Road.

Artist Profile

Michael Dillon of Crabapple, Georgia has more than twenty years' experience producing both functional and non-representational metal sculptures. As a graduate of Kansas City Art Institute, his methods stem from a strong background in fine art sculpture with an emphasis on design.

> "My goal is to create a visual dialogue with each client that will result in highly crafted works of art. I enjoy the collaborative process and feel that the ongoing exchange with architects, clients and builders enhance and strengthen my work." Throughout a project, Michael generates concept drawings, scale drawings and sample models to further the understanding of the project for both the artist and the client.
> The ability to create works of art from two genres, the functional and sculptural, offers endless possibilities to strengthen and enhance a space. They relate in the very nature of their creation. "Heating metal red hot allows me to control the material in its briefly malleable state to create fluid and graceful structures."

Using large industrial forging hammers, Michael imparts power and force onto the surface of the material, captured for a life span of centuries. The functional work is integrated into the architecture, being attentive to the design and scope of the project.

For more on the artist, see http://www.dillonforge.com/

CLASSROOM GUIDE FOR *AILERON*
A public sculpture by Michael Dillon

Visual Art Standard 1.0—Media, Techniques & Processes

<u>Activity 1</u>: Public artists always develop an initial concept sketch or model for their project. A 2D proposal is referred to as a rendering and a 3D proposal is referred to as a maquette. Public artists present their work to a citizen group and often redesign or edit their work based both of feedback from the project managers or from the location/site itself.

Performance indicator: Demonstrate the ability to sketch or create an initial design and experience public feedback relative to design.

Photo: Maquette of Aileron

Instructions

Draw an initial pen and ink design that you can later transfer to metal. Present your sketch to a small peer group and ask for 2 pieces of feedback. Change or modify your design based on the feedback of your peers.

<u>Activity 2</u> : Watch artist Michael Dillon video demonstrating his work on iron forging as he completes, *Aileron*, a Nashville public art commission.

Performance indicator: Understand and explain the use of metal forging in steel and bronze.

Video: http://www.artsnashville.org/artsuser/Va1.mp4

Key Questions

1. How does the temperature and composition of metal affect the final artistic product?
2. What is wrought iron? Why did Dillon choose different materials here?
3. What other structural and blacksmithing techniques did Dillon choose to improve the strength and quality of Aileron?
4. Name three other art or architectural works that may have used similar construction methods.

Photo: Artist Michael Dillon at work, courtesy of the artist's website

<u>Activity 3</u>: Create basic sheet metal embossed art work.

Performance indicator: Demonstrate ability to create pattern, used basic stamping tools and follow teacher instructions

Materials

- A metal foil sheet to emboss (you can purchase at most craft stores or online)
- A stack of old newspapers or magazines
- A pencil
- Sharpies or other permanent markers
- Scissors
- Cardstock
- Tape

Instructions

1. For each child tape the edges of the metal sheet with masking tape (edges can be sharp).
2. Place the metal square on top of a stack of old newspapers or magazines. Using a pencil draw the design you want to emboss onto the square. Leave about 1/4" of a border around the edge. If you are going to write anything, be sure to write it in reverse to that it will be legible when you turn it over to the front.
3. Flip over metal sheet and see design. You can color raised parts of design with sharpie markers. Design can be left as a sheet or with teacher assistance, hole can be punched in top to make an ornament.

Key Questions

1. How did your design alter with materials?
2. What choices did you make to improve your design?

Additional Teacher Resources

http://www.ehow.com/how_8170438_stamp-metal.html
http://www.ehow.com/how_8549269_doityourself-metal-stamping-processes.html
http://www.ehow.com/how_10017127_stamp-out-pattern-sheet-metal.html
http://www.whimsie.com/craftmetalbook.html

Visual Arts Standard 2.0 Structures & Functions

<u>Activity 1</u>: Explore & identify the elements of art using sketches and animated video of *Aileron*.

Performance indicator: Demonstrate understanding of line, shape, texture and form within a sculpture.

Video: http://www.artsnashville.org/artsuser/Va2.mp4
Maquette video: http://www.artsnashville.org/artsuser/aileron-proposal.mp4

Key Questions

1. Label line, shape, texture, value and form in *Aileron*.
2. Discuss how the site and location of the greenway/park/golf course inform the design?
3. Discuss how scale informs design?
4. Define kinetic and discuss how movement is an element of design?
5. Discuss how Dillon uses texture and pattern in steel & bronze to connect with place and history.
6. How would this change if it was located in an interior?

<u>Activity 2</u>: Build a simple kinetic sculpture (modified from PBS Kids). Make a sculpture that is at least six inches tall and has at least two parts that move in the wind. That's what makes it kinetic—it moves. But watch out, wind can also knock it over. So, make sure the tower is sturdy enough to stand up in the wind.

Performance indicator: Demonstrate knowledge of form, design and movement within space through sculpture.

Materials

- Strips of colored paper or fabric
- Ruler
- Pens or markers
- Cardboard
- Metal washers (various sizes)
- Markers
- Ping—Pong balls
- Poster putty
- Paper cups (various sizes)
- Scissors
- Wooden skewers
- String
- Tape (duct or masking)

Instructions

1. Brainstorm and Design
   Looking for inspiration? Watch video of Vollis Simpson's *Windmill Farm* to see how everyday objects can use motion to become beautiful. Look at the materials and think about how you can meet the challenge.
   http://www.pbs.org/independentlens/offthemap/html/travelogue_artist_7.htm?true
2. Build
   - Assemble your sculpture.
   - Name your sculpture. Artists typically name their sculptures because it can add meaning. Why do you think Michael named his sculpture *Aileron*? Create a name for your sculpture that is accurate, funny, poetic, or mysterious.
3. Test
   Set your sculpture in front of the fan. Do the parts move as you expected? We had to tweak ours to get it to work the way we wanted. Did the wind knock your sculpture over? Where the weight is located also effects how it stands. If too much weight is toward the top, it may tip over. If most of the weight is at the bottom, it stays up better.
4. Redesign
   What adjustments will help your sculpture's parts move in the wind? Does it need additional support to keep it from falling over? How can you make it more stable? Once everything's working the way you want, how about:
   - adding another moving part?
   - making your sculpture taller?
   - changing it to work in either more or less wind?
5. Inside the Engineering
   What would you have to do to make your sculpture stand up in a tornado—strength winds (74 miles per hour or greater)? In order to install his sculpture, Michael Dillon had to have engineers work with him to make sure heavy wind and rain would not make the sculpture topple. When you visit, try to identify the elements that help the sculpture stay stable. What other things besides sculptures might need to have this kind of engineering?

Additional Teacher Resources

http://pbskids.org/designsquad/parentseducators/resources/kinetic_sculpture.html
http://www.youtube.com/watch?v=qs88aC0k0yI
http://thekidshouldseethis.com/post/9878478548
http://www.pbs.org/independentlens/offthemap/html/travelogue_artist_7.htm?true
http://www.avam.org/for-educators-and-educatees/pdf/ATR/ATR-Visionary-Activities-web.pdf
http://www.smm.org/sln/vollis/
http://www.abana.org/

Visual Arts Standard 3.0 Evaluation

<u>Activity</u> 1: Michael Dillon discusses how he found inspiration for his public art.

Video: http://www.artsnashville.org/artsuser/Va3.mp4

Key Questions

1. What did the artist look for in community feedback?
2. How did he decide what ideas and symbols to use?
3. How might this be different if he was making the art for himself vs. for the public?
4. What other ideas do you see in Michael's work?
5. What other symbols or historical references were important to the community?

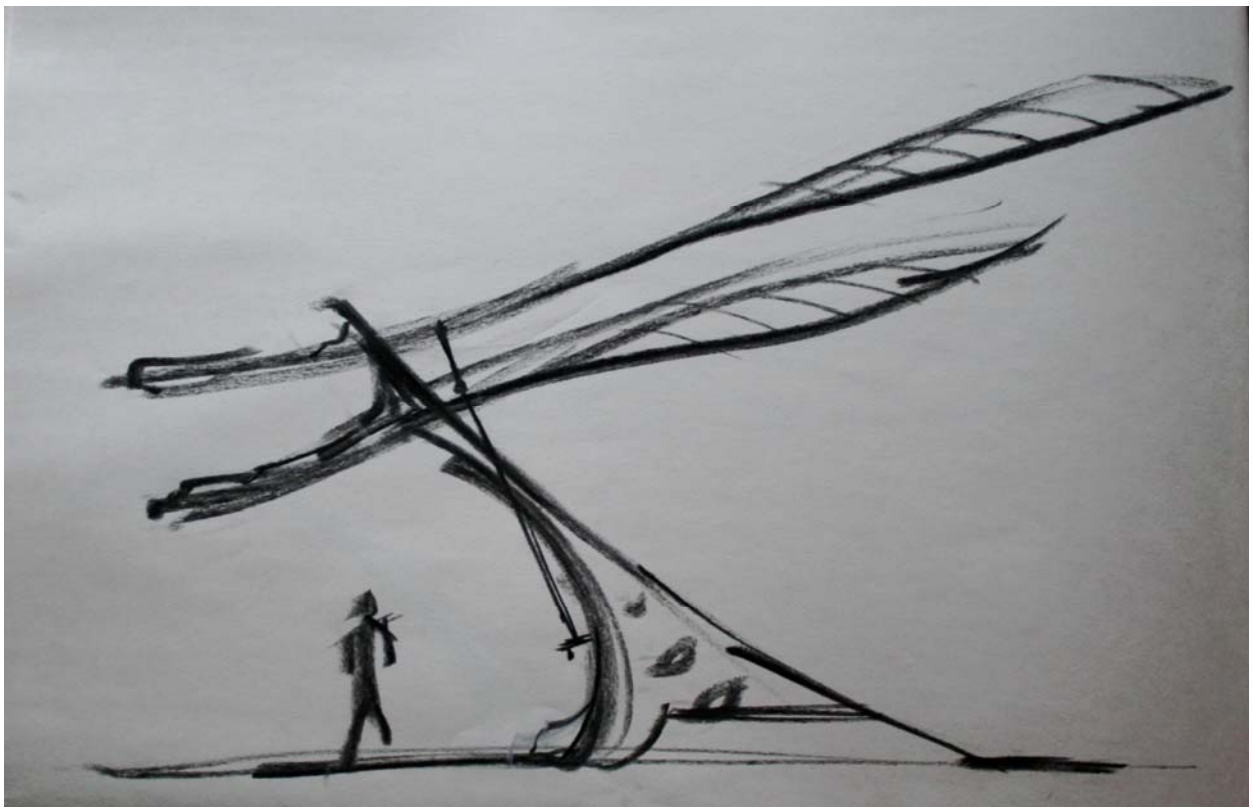

Photo: Sketch of Aileron

Standard 4.0 Historical & Cultural Relationships

Activity 1: Review 3 different forged bronze images from throughout art history.

Functional—Armor (Sutton Hoo Ship Burial)
http://www.britishmuseum.org/learning/schools_and_teachers/resources/all_resources-1/resource_sutton_hoo_slideshow.aspx

Funary—(Benin or West African masks)
http://www.britishmuseum.org/learning/schools_and_teachers/resources/all_resources-1/resource_benin.aspx

Key Questions

1. Discuss how blacksmithing evolved from functional trade to art form?
2. What techniques and tools have stayed relatively the same over time?
3. How did different cultures adapt forged metal work to their natural resources?
4. Discuss the training/journeyman process for a blacksmith?

Activity 2: View the kinetic sculptures of Vollis Simpson and Alexander Calder. Understand how their work is a reflection of time and culture.

http://www.calder.org/
http://www.avam.org/our-visionaries/vollis-simpson.shtml

Key Questions

1. How are the artists the same/different?
2. How was Vollis Simpson inspired by his native North Carolina?
3. How was Calder shaped by the post-Modern movement?
4. How did both men translate engineering and technical training into art?

Additional Teacher Resources

http://www.smm.org/sln/vollis/trythese/trythese.html
http://www.nga.gov/education/classroom/counting_on_art/lessons_calder.shtm

Special thanks to: