Mural Use in Enhancing Outdoor Education: Incorporating a Mural into the Classroom at the Juanita Hults Environmental Learning Center

An Honors Thesis (HONRS 499)

By

Julia Hill

Thesis Advisor
Dr. Amy Gregg

Ball State University
Muncie, Indiana
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Abstract

The Juanita Hults Environmental Learning Center has been owned by Ball State University for nearly thirty years. The property consists of a farmstead and a variety of ecosystems, including wetland, forest, and tallgrass prairie. Local school groups take field trips to Hults, where they participate in hands-on nature activities and games led by their teachers and Ball State students and faculty. Activities mostly encourage outdoor exploration and discovery, but an indoor classroom (located in the farmhouse) is available as well. When I visited Hults for the first time, I saw a lot of unused potential in the indoor classroom space, which had plenty of materials for outdoor education but little organization or child-friendly atmosphere. I decided to transform the space by painting a mural on one of the walls. In this paper I discuss the creative process of designing and implementing the mural, as well as its projected usefulness in outdoor education at Hults.

Acknowledgements

I would like to thank Dr. Amy Gregg for advising me and showing the enthusiasm and support I needed to successfully complete the project.

I also appreciate the friends who helped me paint the base coats on the wall and kept me company while I worked.
The Project

In 1986, Juanita Hults Maley willed her family's land to Ball State University's Natural Resources Department with the purpose of opening it up to school groups for environmental education (Ball State University 2011). The Juanita Hults Environmental Learning Center has 91 acres five ecosystems, including hardwood forest and tallgrass prairie (Mortensen 1987). Groups of children, led by their teachers and Ball State faculty and students, come to Hults to spend a day exploring the outdoors and experiencing nature firsthand. An indoor classroom is also available for the students' use. This classroom, according to Charles Mortensen (former Chairman of the Department of Natural Resources), was meant to be an interpretive center like the Aullwood Nature Center near Dayton, Ohio. It was to "serve as a meeting place for small groups of environmentally concerned people (Mortensen 1987)."

When I first saw the classroom in 2009 I thought it had a lot of unused potential. Though the primary objective of the Hults Center is outdoor education, a well-organized indoor space could be used to stimulate imagination and learning before heading outside. It could also provide extra educational opportunities during inclement weather. The classroom initially had a plethora of supplies for outdoor education but was not decorated or organized in a child-friendly manner. At the suggestion of Dr. Amy Gregg, I began playing around with the idea of painting a mural in the classroom to give the space a theme that would encourage outdoor discovery. One of the missions of Hults is “to encourage an understanding of
ecological systems, the interrelatedness of all living things, and the role of people in maintaining and improving the quality of the environment (JHELC brochure).” A mural featuring native plants and animals would follow that mission faithfully.

Sources of Inspiration

I can easily recall my own experiences with murals in environmental education settings. My favorite places to go when I was younger were zoos, museums and nature centers. Not only did I like seeing the dioramas and exhibits with real or stuffed animals, I liked looking for what was painted on the walls behind the animals. Brookfield Zoo’s Tropic World (the primate house) felt like a vast, never-ending jungle due to the mist-covered mountains, trees and waterfalls that were painted on the walls. It was awe-inspiring to my small eyes. A mural’s ability to transform a space was not lost on me as a child, so when I became old enough to reach the ceiling by standing on furniture I decided to alter my own bedroom. My plan was to cover all four walls with a vibrant mural of the Amazon rainforest. Though I was overly ambitious and never even came close to completing the project, I learned how much work went into a mural.

I am not the only example of a child who has been positively affected by murals. Nanda et al. (2009) performed a study in which they gave surveys to 64 children ages 5-17. The survey consisted of 20 images which children were told to rank and indicate how they responded emotionally to each one. The setting was pediatric wards in hospitals—an excellent location to measure the beneficial effects of artwork to calm or produce positive emotion. The results were not unexpected.
For the most part, children of all ages preferred realistic, colorful paintings that featured nature – particularly water elements and animals. Though some differences were present between age groups (for example, older children were more cognizant of the quality of the artwork), murals featuring nature always came out on top.

I took the study by Nanda et al. into consideration when planning my mural. I was also inspired by *The Great Animal Search*, illustrated by Ian Jackson, and Paul Adshead’s *Puzzle Island*. Both of these picture books were in my childhood library and feature brilliant, colorful nature scenes bursting with animal and plant life – far more biodiversity per square foot than you would ever see naturally (Figures 1 and 2). Both books are also remarkable in that they are interactive; you play a game that involves searching for hidden objects and animals as you read and look at artwork.

Based on my sources of inspiration and the stated objectives of the Juanita Hults Environmental Learning Center, I came up with several goals that I wanted my mural to accomplish:

1. To create an attractive and inviting atmosphere in the classroom.
2. To use the mural as a teaching source for environmental education.
3. To have the mural be a springboard for other activities that can be done outdoors at Hults.

**Preparations**

I began the project by taking measurements of the walls in the classroom and thinking about space usage. A mural that wrapped around the entire room was very
appealing to me, but in the end I decided to contain the painting to one wall. The other three walls already had corkboards and dry-erase boards on them, and a large bookcase was also a feature of the room that needed to have a space against the wall. The wall I chose was a large rectangle with two long windows that were nearly floor-to-ceiling. Before the end of spring semester 2010, I filled in the cracks, primed the wall, and painted it a base color of sky blue.

I began sketching ideas for the mural during the summer of 2010. I got plenty of inspiration for the project from the woods of the Piedmont foothills that surrounded the log cabin I was living in for a summer internship. My initial idea was to divide the wall into three areas (conveniently partitioned by the windows): Prairie, Forest, and Wetland. By the time I returned to Ball State in the fall, I had a scale rough draft of the mural prepared and a color version (generated on the computer using Photoshop; Fig. 3) of the middle area, Forest, which was the largest section and the one I planned on working on first.

The Painting Process

When considering what type of paint to use, I chose acrylics for their quick drying time, versatility, and affordability. This type of paint is water-soluble (which makes cleanup easier), comes in a large variety of colors, and has good covering power, but the quick drying time sometimes makes blending difficult (Seligman 1998). Nonetheless, I felt comfortable working with acrylics and knew that I could afford this type of paint. I mostly worked with the Delta Ceramcoat brand. I laid out my sketch onto the wall using a grid system that allowed me to accurately transfer
the picture, maintaining the correct size ratios. I then began painting, beginning
with objects that I wanted to be highly detailed (such as the deer) first.

As I worked on the “Forest” section, I realized how time-consuming the
painting process was. Because of time constraints, I decided not to paint the other
two segments of the wall. I focused my energy on producing satisfactory results in
the forest section. One of the challenges I encountered was no access to running
water in the winter, which was unexpected and forced me to bring my own water to
wash brushes and dilute the paint. Another issue of concern was weather, and
several ice and snow storms kept me from Hults during the spring semester.
However, by diligently spending many of my weekends painting I was able to
complete the mural by the end of April, 2011. A photographic progression of the
mural is shown (Fig. 4.1 – 4.3). Additional close-up pictures of the mural are located
in the back pocket of the binder.

**Education Purposes**

Though children of any age can enjoy the mural, I designed specific activities
for young elementary students up to the third grade. I created a teacher resource
packet that can be used to implement three different activities that center on the
forest ecosystem and the animals that inhabit it.
Teacher Resource Packet

Activities centered around the mural in the Juanita Hults Environmental Learning Center Classroom.

Reflective Questions: Ask the students the following questions about what they see in the mural. After discussion, remind them to look for some of the same things when they explore outside.

1. What is a "predator?" What is "prey?" Are there any examples of a predator and its prey on the wall?
2. What do you notice about the colors of animals? Why are some animals brightly colored, while others are dull? What was the first animal you saw when you looked at the painting?
3. Why is there a path? Where do you think it leads to? Are humans part of the forest, too?
4. How many mammals can you find? How many birds? How many reptiles? How many amphibians? (These terms may have to be defined.) How could you tell which animal was which?
5. Define "habitat." What type of habitat does this painting represent?

The "I’m Thinking of Something" Game:

Similar to 20 Questions, one student will be chosen to pick an object, animal or plant on the wall. This student will inform an adult of his/her choice, and the rest of the class will try to guess the answer by asking yes or no questions. The correct
guesser gets to be the next person to choose an item from the wall. Throughout this game, encourage children to be observant and to notice little details. Inform them that they will be able to find more interesting things when they go outside if they look carefully and ask questions about what they see.

Race to Place:

**Summary:** In this game, students will race to correctly place various objects in their correct locations on the mural.

**Supplies:** Masking tape, 10 paper cutouts of forest objects (located at the end of this packet).

**Objective:** Students are divided into two teams. Each one will select a representative to go up to the mural and place an object. The entire team can discuss where to place the object, but only the selected individual can place it. Each round, a new representative will be chosen. Points are scored by correctly placing items. The first group to place their item also receives bonus points. There are five rounds (though more can be made up if desired).

**Rules:**

1. Each group's representative is handed one object each at the same time. Objects are affixed to the wall using masking tape.
2. Running is not allowed, but it is a race! Fast walking is acceptable.
3. Groups may discuss where to place the object, but once the representative is at the wall they cannot call out advice.
4. Each correct placement is **four points**; the first group whose representative returns to them will receive **two bonus points**. For example, if one group has moss and correctly places it on the rock or a tree, and the representative also makes to back to the group first, they will receive six points total for that round. The other group may earn four points if they place correctly, but they cannot earn the two bonus points.

5. Additionally, some items **do not belong in the forest at all!** If the group correctly recognizes this and does not place it, they receive four points (no bonus points are awarded in rounds with these objects).

**Note to teachers:** During a round, try to hand out items that will go on different places to each group to minimize crowding at the wall.

**Correct item placement:**

**Underground:** mole, worm

**In a tree:** tree frog, screech owls, moss

**Forest floor:** mushrooms, mouse

**On a rock:** moss, snail

**Does not belong:** aluminum can, McDonald’s wrapper
Screech owls for *Race to Place*.

http://www.wpclipart.com/animals/birds/E/Eastern_Screech_Owl.png.html
Mole for *Race to Place*.  
http://www.wpclipart.com/animals/M/Mole.png.html

Mouse for *Race to Place*  
http://www.wpclipart.com/animals/M/mouse/mouse_house.png.html
Mushrooms for *Race to Place*.

http://www.wpclipart.com/food/mushrooms_Macrolepiota_excoriata.png.html

Worm for *Race to Place*.

http://www.wpclipart.com/cartoon/animals/worm_cartoons/worm_happy_cartoon.png.html
Moss for *Race to Place*.

http://mayang.com/textures/Plants/images/Moss%20and%20Lichen/organic_green_shoots_4012161.JPG

Aluminum can for *Race to Place*.

http://www.123rf.com/photo_6480476_crushed-aluminum-can.html
Snail for *Race to Place*.

http://spaz.ca/?p=257

Tree frog for *Race to Place*.

http://www.wpclipart.com/animals/F/frogs/Florida_tree_frog.png.html
McDonald’s wrapper for *Race to Place*.

http://skateboardcoalition.mb.ca/skatemanitoba/WSA/mcdonalds%20wrapper-8839.html
Figure 1: from Caroline Young’s *The Great Animal Search*, illustrated by Ian Jackson. 
http://www.shadymaplegiftshop.com/images/products/Puzzles/ceaco%20puzzles%20swamps%202206-1b_500.jpg

Figure 2: Illustration from Paul Adshead’s *Puzzle Island*. 
http://www.paul-adshead.com/page90.html
Figure 3: Rough draft of the forest portion of the mural; generated using Photoshop.
Figure 4.1: Base coat and sketch on the wall.

Figure 4.2: The mural roughly halfway to completion.
Figure 4.3: The completed mural.

Figure 4.4: The classroom with finished mural at the Juanita Hults Environmental Learning Center.
References


http://cms.bsu.edu/Academics/CentersandInstitutes/FSEEC/Properties/HultsEnvironmentalLearningCenter.aspx

Juanita Hults Environmental Learning Center (brochure). Ball State University, Muncie, IN.

Mortensen, C. *Guidelines for the use of the Hults Environmental Learning Center*. Memo to Thomas J. Kinghorn, Vice President for Business Affairs, Ball State University, Muncie, IN. 11 Jun. 1987.

