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Title:
A River Runs Through It: Art, Geology and Life on the Upper Mississippi

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Abstract:
This article presents a pilot interdisciplinary project for middle-school students including visual literacy, studio art, English-language literacy, geology and the study of indigenous groups.[i] The location of the pilot was in the upper Midwest, along the Mississippi river bluffs of St. Paul, Minnesota. English-as-a-Second Language (ESL) students from a Title I school joined a six week summer program, where they examined the banks and bluffs of the Mississippi river, effigy mound sites, and made visits to the Science Museum of Minnesota and the Minneapolis Institute of Art. This curriculum investigates 'place' and effects of time, with the intent to increase students' knowledge of local history, and their placement within the socio-cultural context of a river-city. Students took digital photographs, created mixed-media art, conducted computer research and

wrote about their experiences. Teachers agreed that this combination of learning strategies was a rich interdisciplinary experience for students. This article describes the various components and resources for such interdisciplinary curriculum, with emphasis on skill-building, knowledge acquisition and exploring connections.

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A River Runs Through It: Art, Geology and Life on the Upper Mississippi

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Abstract

This article presents a pilot interdisciplinary project for middle-school students including visual literacy, studio art, English-language literacy, geology and the study of indigenous groups. This grant-funded project (National Art Education Foundation, NAEF), was located in the Northern Midwest, along the Mississippi river bluffs of St. Paul, Minnesota. English-as-a-Second Language (ESL) students from a Title I school enrolled in a six week summer program They examined the banks and bluffs of the Mississippi river and effigy mound sites, combined with visits to the Science Museum of Minnesota and the Minneapolis Institute of Art. This curriculum investigates 'place' and effects of time, with the intent to increase students' knowledge of local history, and their relationship to the socio-cultural context of a river-city. Students took digital photographs, created mixed-media art, conducted research and wrote about their experiences. Teachers agreed that this combination of learning strategies was a rich interdisciplinary experience for students. This article describes the various components and resources of this interdisciplinary curriculum, with emphasis on skill-building, knowledge acquisition and exploring connections.

Introduction

A major bridge over the Mississippi River collapsed in 2007 in Minneapolis, Minnesota, killing 13 people and injuring many others. Video recordings of this tragedy are still available to view on YouTube (YouTube.com, 2007). While this type of disaster has been rare in the U.S., citizens who live near rivers or lakes are periodically reminded of the importance and inherent power of water and waterways. Many U.S. states have experienced an onslaught of moving water due to heavy rains, such as Louisiana and Texas (2001, 2005), Oregon and Washington (2008), New Jersey (2011), and Colorado (2013). This type of event does not affect everyone equally. The 2005 Hurricane Katrina in Louisiana, for example, illustrated the divide between who lived on low ground and who lived above, often a matter of socio-cultural and economic factors (Walker & Warren, 2007).

Aside from potential dangers of settlement near a river, one of the fascinating aspects of river towns such as the 'Twin Cities' of St. Paul and Minneapolis, is that the history of the waterway and people who have come and gone over time is often still visible. From the water-carved sandstone bluffs (Theiling & Nestler, 2010; Delong, 2005), caves (The Herald, 2004; Los Angeles Times, 1896; New York Times, 1896) and human-made effigy or 'Indian' mounds (Schermer, 2012; Mann, 2005; Ravenscroft Danzer, 2002; Wilford, 1950), to the early railroad tracks used to transport people, materials and goods (Grant, 2000/2001; Martin, 1976; Ryan, 1946; Sedgwick, 1944), a variety of people have come in waves to the upper Mississippi region. Indigenous peoples lived there as early as 3000 BCE (Nassaney, 2008; Savage & Spence, 2011). French explorers arrived in 1659 (Ibson, 2005), and various European descendants (including Britain, Germany, Finland, and Sweden) marked U.S. statehood in 1787 (1858 for Minnesota) (Card, 2008; Dyer, 1959). Hmong people came from Southeast Asia in the 1970s (Tribune, 1999; Tatman, 2004), and the most recent major group to settle in Minnesota is from Somalia (Shah, 2012). Some of these individuals came to explore, some groups hoped to conquer communities already in residence (Meyer, 1999/2000; Ritzenthaler, 1970), while still others sought refuge from their place of origin. This curriculum investigates people, place and effects of time (see Figures 1 & 2), with the intent to increase students' knowledge of local history, seated in socio-cultural and political context (map of Minnesota river cities at http://www.mnmississippiriver.com).

Figure 1. St. Anthony Falls on the upper Mississippi, oil on canvas, 22" x 30",
by Henry Lewis,1848-1849. (Photo from collection of MNHS, 2014).
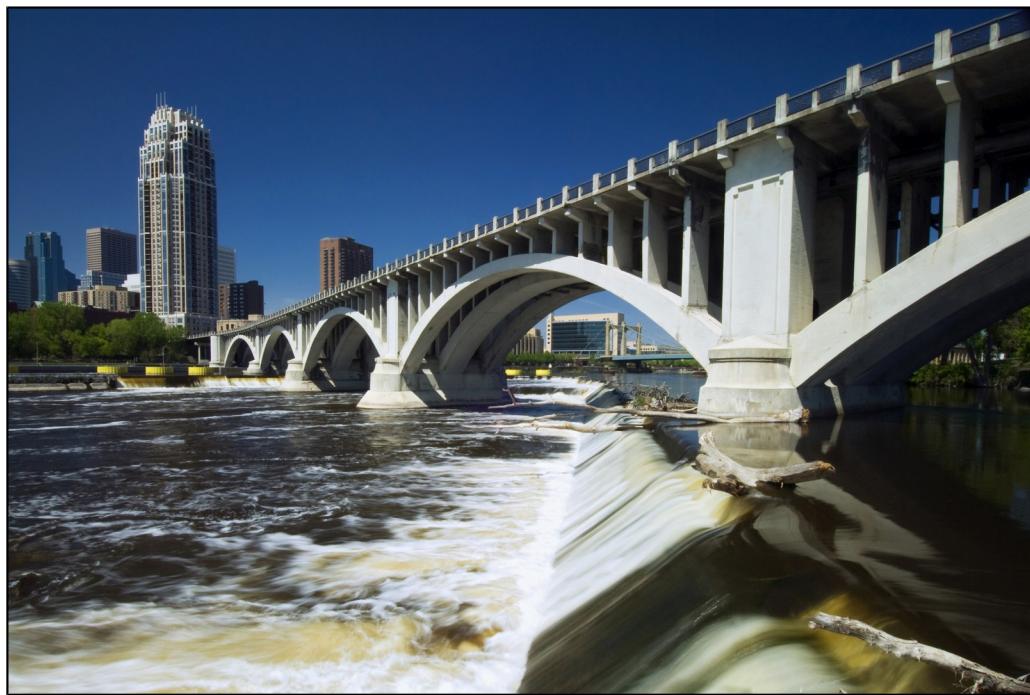
Figure 2. Upper Mississippi River, view from the east bank, just above St. Anthony Falls,
Minneapolis, MN. (Photo by Dreamtime, 2009).

Project Curriculum

Student Participants

The middle-school students that participated in this project were part of the summer program at a Title I school in Minneapolis, Minnesota. Just entering 7th through 9th grades, they represented students with the highest academic needs, English–as-a-Second-Language (ESL) student group. The lowest 25% in standardized test scores were from the seventh grade class. Students represented countries such as Mexico, Nepal and Tanzania. In addition to the language and academic variables, some of the students had family concerns: frequent moving, low-incomes, and some were occasionally required to take care of siblings rather than come to school. In addition to those issues, sudden changes sometimes occurred in our class schedule, including periodic sessions at a week-long summer camp, day activities with community organizations, or testing.

The ESL teacher noted that in general students were happy to come to school in the summer because they would otherwise have few activities in which to engage. All of the 20 pilot students participated at various points during the summer and a core group of about 14 attended regularly. About 30 additional students accompanied our smaller group on the field trips to the Science Museum, the effigy mounds and the River bluffs.

Teaching Participants

In addition to myself, three teachers from the participating school comprised our core group: an ESL and social studies teacher (Teacher I), whose student groups were the main participants; a media teacher (Teacher II) who worked with students on manipulating their digital photographs, and a middle-school teacher who was completing her credential and worked with us in the classroom for several weeks (Teacher III). This group of teachers and I utilized the entire summer 5.5-week program period (approx. 1.25 hours per day for each of two groups, 4 days per week for classroom instruction) for the project.

Researcher Participation and Data Collection

During our class instruction I was the main teacher for all art activities, related vocabulary, and part of the reading. On field trips I facilitated the photography and was one of several group supervisors, while for the writing and parts of the reading I was an observer. I took

photos of students' work at the end of the class day, when projects were complete and during our field trips at the Science Museum, the Minneapolis Art Institute, Indian Mounds Park and Mississippi River Bluffs. I collected students' individual artwork and writing, and extensively documented the collaborative display, which culminated the project. This display remained intact the entire 2011-2012 school year. It was a mixed-media representation of the Mississippi River Bluffs and effigy Mounds, including landforms, figures and artifacts (Figures 3 & 4). The figures represented two Native American groups - the Anishinabe (Ojibwe) and Dakotas (Sioux), who had immigrated up the river to this location, and still live in various parts of Minnesota (Peacock & Day, 2000; White, B.M., 1992). The characters in the display are depicted conducting daily activities in their early settlement years, on top of the bluffs and on the river's banks.

Figure 3. Final display with effigy mounds and figures, upper bluff. (Photo by Author, 2012.)

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Figure 4. Display with lower bluff, caves, Mississippi River, figures and canoes. (Photo by Author, 2012.)

Resources and Information

There are a number of resources for both teachers and students that may be common to other states across the U.S. In addition to a library search for journal articles, two excellent sources of visual and written information for our project were the online collections of the Minnesota Historical Society (MNHS, http://www.mnhs.org), and the Minnesota Department of Natural Resources (MN DNR, http://www.dnr.state.mn.us/index.html). Another key resource was the Science Museum of Minnesota, for information on the Mississippi River (http://www.smm.org/visit/mississippi) and their Anthropology online site (http://www.smm.org/anthropology). Examples of articles include Cutler's (2009) overview of the Mississippi river around St. Anthony Falls (the first lock-and-dam site), which is very similar to the timeline we utilized, examining past to present. Our group looked at the river bluffs primarily from a visual perspective, with a light discussion of sandstone and limestone, erosion and glacial movement, however, this aspect of the curriculum could be much more prominent for

geological study. Anfinson's (2003) article on St. Anthony Falls shows excellent visual images of the falls from 12,000 years ago to the 1850's, including numerous photos and a map of the early river-cities. Knox's article on floodplain sedimentation provides detailed technical info, with maps and description of similarities and differences in the areas surrounding the Southeastern portion of the state (Knox, 2006). Two of the books we procured: *Life in an Anishinabe Camp* (Kalman, 2002) and *Life in a Plains Camp* (Kalman, 2001) were illustrated with line drawings of clothing, housing, tools and other artifacts, very similar to actual artifacts displayed in the Native American Arts section at Minneapolis Institute of Art (see online collections at (http://new.artsmia.org). In addition to excellent illustrations, these books described environment, social structures, daily activities and what it was like to encounter Europeans, for indigenous groups in the Great Lakes region (Kalman, 2002, p.3; Kalman, 2001, p.3).

Historical Accounts and Cultural Biases

Although theoretically understood in education, an important reminder for teachers while reviewing historical information in practice is that it is up to the teacher to recognize biases in photo collections, articles and exhibits. Teachers need to keep an eye out for information that is skewed towards a perspective of the dominant group only as heroes, and indigenous people as 'romantic', 'primitive', 'savage' or as victims whose culture exists only in the past, for example (Fleming, 2006; Hawkins, 2005; Belcourt-Dittloff & Stewart, 2000). It is important to remember that language makes a difference. For example, although described as primarily a peaceful people in other writings, the single phrase "war-like Sioux" (Drenning-Holmquist, 1951), can conjure up Hollywood stereotypes about continuously 'hostile Indians'. To assist in creating an equitable picture of the past, investigating a variety of interdisciplinary information sources and local community and school sites can help balance points-of-view. For example, a website on the U.S.-Dakota War of 1862 provides details on causes of the war such as withholding of food stores by the U.S. military, information which may be absent from local history museums (http://usdakotawar.org); another resource on this conflict is a documentary feature film produced by Smooth Feather Productions, entitled *Dakota 38* (SmoothFeather.com, 2012). *Migizi Communications* (http://www.migizi.org) is a middle and high school program in Minneapolis, focused on science, technology, and math. This school has produced videos with students and posted them on YouTube, such as this video explaining meaning and connection

regarding land and sacred sites (see http://www.youtube.com/watch?v=amaniHcBsiA, 2010).

Other community sources identify more recent historical (possibly ongoing) issues with Native

Americans, land and water use. Aarnot's 1997 article in *The Circle* newspaper, for example,

identifies important contemporary conflicts relating to treaty rights and use of water and land.[1]

Thorpe's 1995 article describes the pressure of power companies to convince reservations to

allow storage of nuclear waste on reservation lands. Additional resources may be found through

the *Native Web* website, which provides news sources from indigenous groups across the U.S.

and globally: http://www.nativeweb.org, and *Indian Country Today* is a media network for a

wide variety of North American news sources, at http://indiancountrytodaymedianetwork.com.

Sources such as these, in addition to peer-reviewed journals, can provide useful photos,

interviews and contemporary news.

Climate Science

　　While not a part of our original unit it is difficult to ignore climate science and global

warming as an important contemporary topic affecting people, water and land. Resources for this

subject include websites such as 350.org (2013), providing science information, resources and art

curriculum ideas for social-action oriented artwork such as banners. Other resource examples on

the subject of global warming, pollution, related economic and health issues are cartoons and

illustrations by Stephanie McMillan (http://stephaniemcmillan.org), and videos such as *Global

Weirding* (2013). Journal articles such as *Climate Science*, *Rising Tide* (2013), *Climate Change:

Making Healthier Energy Choices* (2013), and *Can Climate Change be Reversed under

Capitalism?* (2009) provide points-of-view and factual information. Local universities could

provide a contemporary guest speaker who could answer students' immediate questions, an

excellent way to facilitate understanding of this complex and often contested topic.

<div align="center">Early Inhabitants and a Changing Landscape</div>

Effigy Mound Builders

　　It is not known for sure if the early Dakotas contributed to the effigy (also called *Indian

Mounds*) mounds on top of the bluffs in the St. Paul area of the Mississippi River (see figures 5

& 6), or exactly who were the "Late Woodland peoples" (Barrett, 2004, p. 141; Schermer, 2012;

Peacock & Day, 2000) believed to be living in the upper Mississippi River area as early as

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20,000 years ago (Wilford, 1944), and as late as 1700 C.E. Some research on these groups identifies the mound-builders as the "Effigy Mound Culture" (Clark, 1982), dating from approximately C.E. 650 to 1200. Native groups in the area consider such effigy mounds as sacred, regardless of the research mentioned. Research on mounds located in the lower Mississippi river basin and at the Rainy River on the northern border of Minnesota and Canada (Ritzenthaler, 1970; Wilford, 1950), infer that the same careful construction that occurred with those mounds would also apply to the St. Paul location, including an eye not only on preservation but concern for "symbolic and ritual practices…" (Sherwood & Kidder, 2011, p. 84).

At one time in St. Paul there were 19 additional mounds (Wilford, 1944), however due to development of the city there are only 6 mounds left in what is now named Indian Mounds Park. A number of smaller mounds were actually destroyed in creating the park that currently preserves the remaining six (National Registry, undated document registering Indian Mounds Park).
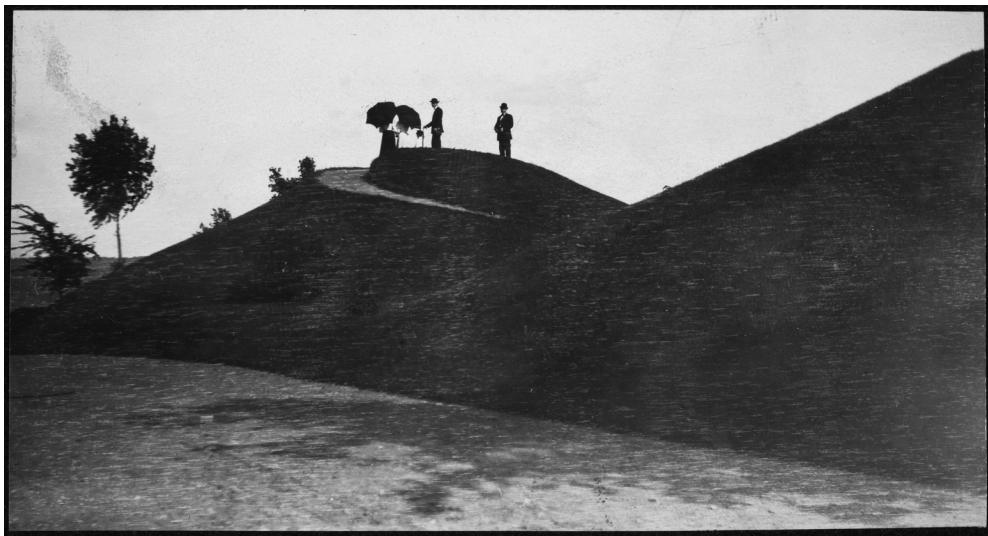

Figure 6.   **Figure 5.** Indian Mounds Park, St. Paul, MN, early 20th century. Hiking path going to the top of the mounds in the early days of the park. (Photo from MNHS collection, 2014).

Contemporary view of effigy mound with warning sign,
Indian Mounds Park, St. Paul. (Photo by author, 2011).

A Changing Landscape

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Factual information can highlight a compare and contrast of values for various groups, and how those values play out in a changing landscape. Individuals involved in early railroad construction in St. Paul, for example, were responsible for the destruction of much of Wakan Tipi (also known as Carver's Cave), long considered a sacred place by indigenous groups (Brownwell, 2011; Anfinson, 2003; Lewis, 1896; Los Angeles Times, 1886; New York Times, 1857). Although what is left of the area is now preserved, the cave - famous for carvings and paintings dating from pre-history, was blasted to make way for a railroad yard.[2] Individuals excavating in the name of archeology or anthropology, for example, destroyed many effigy mounds across the Mississippi region. Even if 'professional' (which many were not), excavators' documentation of their finds is often clearly biased and ignorant of the desecration. Dickeson, for example, one such "physician and scientist" (Heilbron, 1942, p.349), travelled around the U.S.for 12 years advertising "scientific lectures" (p. 350) in excavations of over 1,000 Mississippi mounds. One poster for his lectures advertised: "Scientific Lectures on American Aerchiology…of the Antiquities and Customs…[and a] collection of over 40,000 relics…of those interesting but unhistoried Native Americans" (p.350).

Visual art often functioned as both entertainment and a way for the public to view newly explored territory in the growing U.S. (Arrington, 1953). Painted mural-like panoramas for example, were popular in the middle to late 1800's. A poster advertising a ticketed panorama viewing associated with Dickeson's travels and excavations declared the images to be "…of a large extent of Country, once roamed by the RED MAN…", p. 351. Artifacts pulled from effigy mounds in this type of excavation, including human bones (Lewis, 1896), were in individuals' private possession. Some were eventually donated to museums and many were sold to other individuals, but the artifacts were clearly lost to indigenous groups associated with the mounds (Chaatsmith, 2011; Wilford, 1950).[3]

Curriculum Content and Activities

The "F" Words (and Related Vocabulary)

I made a practice of repeating some words daily: *focus* and *frame* were the two targeted vocabulary words that related to taking photographs and making collages about the Indian effigy-mound formations. Many of the students had never used a camera, therefore we spent time on the concept of focusing on a particular image and framing it through a viewfinder, in anticipation of

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looking through the camera lens. To support curriculum understanding and for viewing practice, the first art activity we did was to select images from magazines, including people, objects and nature, then framing them on paper (Figure 7).

Figure 7. *Focus* and *Frame* exercise. (Student work, photo by author, 2011).

Once the students had gotten used to selecting images and framing them, we advanced to developing students' recognition of shapes using the Indian mounds (half-circles), and to creating perspective using *shape,* change of *scale* and *overlap*. Students took images of people and objects from magazines and incorporated them into a collage with varying sizes of mound shapes; these mound shapes also changed *color* and *value* as they receded into the distance (Figure 8). In this way students would have some recognition of these formal art concepts as they photographed outdoors (Figure 9).


Figure 8. Shape, value, scale and overlap exercise.
(Student work with magazine cutouts, photo by author, 2011.)

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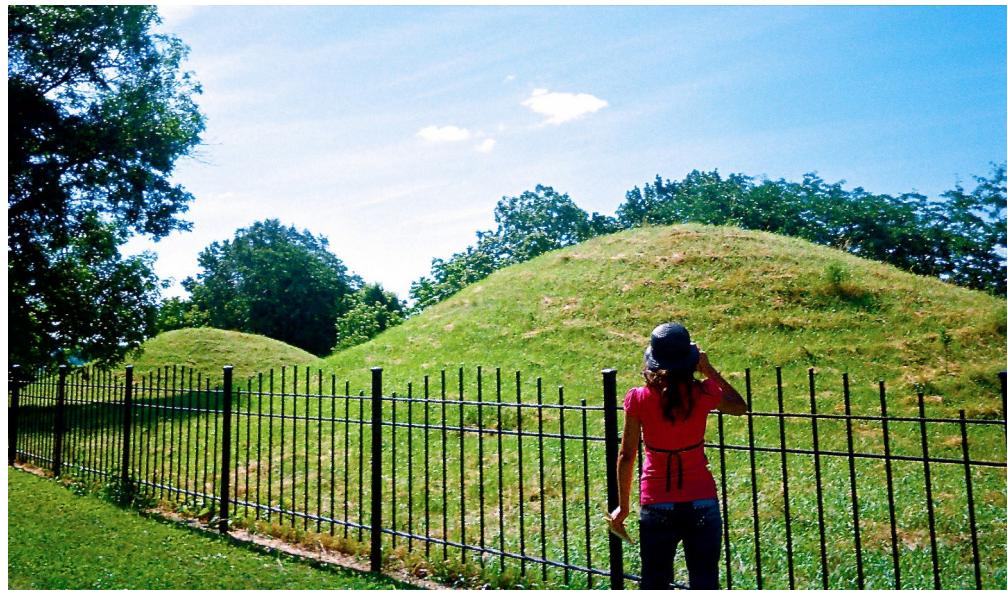
Figure 9. Student photographing the mounds. (Photo by author, 2011.)

Essential class reading was about two groups who settled in Minnesota (a word from the Dakota translating as "*sky-tinted-water*", Peacock & Day, 2000, p. 137). The *Dakotas* are believed to have arrived very early, sometime after the glaciers receded. The *Anishinabe* arrived much more recently, in the early 1700's (Whispering Wind, 2000; Boszhardt, 1998). Until the Federal government imposed assimilation policies beginning in 1887 (Peacock & Day, 2000), these groups lived in communities of between 300-400 members. Both groups "relied extensively on the forests, rivers and lakes for food, materials for clothing, tools, housing and transportation." (p.149). Community members harvested grains, trapped, hunted and fished all through the year. The Dakotas and Anishinabe generally got along with each other. In their early days, "[these]…American Indians did not pursue technological advances, or the domination of the land, choosing instead to live a spiritual existence in harmony with nature" (p. 150).
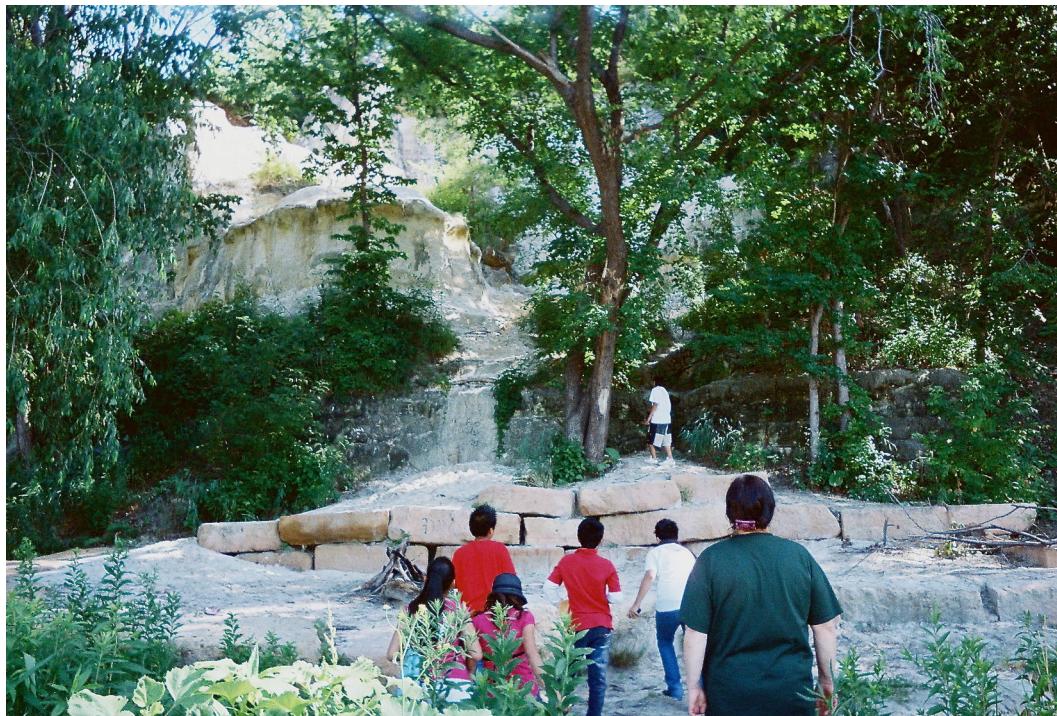
Figure 10. Exploring the bluffs. (Photo by author, 2011.)

Figure 11. Examining a floor map of the Mississippi River at the science museum. (Photo by author, 2011.)

Field Trips, Photography and People in Action

Prior to going on our field trips I provided students with a brief list of items to photograph, including the mounds, the bluffs, rocks, trees, flowers, and the river, and a few at the Science Museum (Figures 10 and 11). They were instructed to include both *distance* and *close-*

up images. Our group also spent time searching online for photos and information on the animal species that occupy the water, the land and the skies of this area. As a quick method to learn about this aspect of the environment, students printed the images, cut them out and arranged them on a piece of mural paper with animal names, to be included in our display (Figure 12).

Figure 12. River-related animal and insect cutouts. (Photo by author, 2011.)

After visiting the museums, bluffs, mounds and river-banks, I gathered all of the student cameras, developed the film and put the images on CDs for digital access. Students then spent time on the computer with a digital photo program modifying their photos, cropping and adjusting light and color, and sharpening images. We then printed the images on photo paper for the highest resolution and color. The final stage of the project was the 3D mixed-media version of the area, for which we used as visual references student photos, online information, and the two illustrated books by Kalman (2001, 2002). We used a large piece of cardboard (from a box, approximately 6' x 10') that was bent into three sections over a tabletop and onto the floor: on top were the six mounds, the long front was the bluff with caves, trees and rocks, and the bottom was the river and river banks. We used masking tape, paper mache, twigs and sticks, sandstone rocks, tissue paper, construction paper and paint (see Figure 13). People in action were depicted in activities such as making food, hunting, and fishing. Representative artifacts included canoes

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made of paper, clothing, bows and arrows, and other related items.[4] The completed 3D artwork, animal printouts and photographs were organized by myself and some of the students, in a large glass case inside the school, on display for the entire fall, spring and summer semesters of 2011-2012 (Figures 14 & 15).

Figure 13. (Left) cardboard structure for bluffs. **(Right),** detail of completed bluff with rocks, sticks, tissue paper, paint & paper mache. (Photos by author, 2011.)

Figure 14. (Left) completed display case with student photos, animal mural and sculpture of mounds and bluff. **(Right)** detail of river at bottom of the bluff with figures tending canoes and fishing. (Photos by author, 2011.)

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Figure 15. (Left) display case with student work: photos, animal printouts, mounds, figures and related artifacts. **(Right)** detail of figures drying meat on a rack and cooking next to a fire. (Photos by author, 2011.)

Reflections: Students

Students were asked to write about their experiences and summarize what they learned during this project. The following are excerpts from student reflections. (Note that students' skills in writing varied. To facilitate reading here, in all excerpts below - excluding Student 2 - wording was not changed but spelling and some punctuation has been modified by the author):

Student 1:
"When I went to the field trip I went to the Bruce Vento Nature Sanctuary. I saw a bald eagle and sandstones, and I saw a frog in the streams. I'm glad that in the Twin City there is a place where animals live safe."

Student 2 (student typed and italicized):
"I learned the word *frame* and how to frame a picture so the image is clearer. I also learned how to *focus* a picture so I can take a really nice photo. I also learned that you could have people and objects in a landscape so it makes the photo more interesting, and that the closer the objects are the bigger the images are. An interesting word I learned was *bluff,* it means a rock wall usually created by moving water like the Mississippi river. I also learned that the natives buried people to create a *mound.* The *mound* grew bigger because they put more people and more dirt every year. …I learned words that I knew but didn't know how to use them."

Student 3:
"*Focus* is paying close attention to something….A new word that we have is *bluff,* this word means big wall made of rocks. The Mississippi is surrounded by bluff….In conclusion I like this class."

Student 4:
"Last week when I went to a field trip I saw many things: hobo, trees, Carvers cave, Bald eagle which Indians used to think was sacred, stream, sandstone, frog, trains, bluffs……After two places travelling we went to

museum which was very good to see things of Mississippi river. I saw tugboat, and it looks cool inside…..In conclusion, the field trip was amazing and cool what I learn[ed]."

Reflections: Teachers

In general, the participating teachers thought there were numerous benefits to this type of approach to curriculum. The following are excerpts from the questionnaires completed by participating teachers after the project was over.

."…perceiving images through the eyes of an artist---looking at perspective, focus, focal points, details----creating images from knowledge gained in the subject area was so relevant and a way for the students to clarify their ideas on the subject matter."
- Teacher I, ESL

 "[making]… social studies a literal hands-on activity using cross curricular materials and content [allows] for multiple levels of learning. This in turn helps students live up to their full potential as learners."
– Teacher II, media instructor

"The small group setting with focused theme and sequencing of lessons that culminated in a large public art display really helped the students do more than just learn content and language. They also built ties with their community, experienced working with an expert artist, and received public recognition of their work."
– Teacher III, middle school.

In addition to the above, there was a desire expressed by Teacher III for more time spent in student writing, and more time for art, by the art instructor (author). In the conclusions section, there is a list of suggestions on expanding content in all of related discipline areas.

Conclusions and Implications

Interdisciplinary Literacy

Although the unit as we presented it was squeezed into little more than a five-and-a half-week period, teachers could incorporate more skill-building exercises and specific instruction during a whole semester, or spread the unit out over a school year. As an art instructor, for example, I would have preferred additional practice photography, instruction on anatomy, drawing, color and painting techniques, and time to perfect the sculptural objects. Extended engagement with the natural world and wildlife could include drawings and/or sculptures of animals and plants. Drawings are easily done with pencil, crayon, markers or other drawing tools, with paper-mache or air-dry clay (3-D, sculpture), as part of a final group display. If a class

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wished to study the building of a canoe for example, miniatures could be made of soft wood or similar material, with a much closer look at structure (see endnote 4).

Students would also benefit greatly from more formal instruction in art history, geology and natural history, to acquire a stronger knowledge base in support of what they later experienced in-person during the field trips. In addition, guest speakers from or visits to local indigenous community organizations can highlight the continuation of various cultures from past to present. As noted in one of the student writings above, for example, some students did perceive Native values as existing only in the past.

Team-teaching a unit such as this is ideal, but if this is not possible, small parcels of interdisciplinary content can significantly enhance the subject matter of art and the naturally-related disciplines of history, science and language. Any discipline, such as a study of economic concepts, can be illustrated through history and art.[5] For example the familiar need to go 'exploring' by many groups was often driven by a desire for money, natural resources and slaves (Zinn, 2010), while a similar desire for valuables also accompanied many of the 'excavations' conducted on the effigy mounds discussed above (Chaatsmith, 2013). Many of these indigenous artifacts are traded and still part of our economic system today (Adamson, 2013). Discussion about issues such as the sale of sacred items, antiques, the handmade object vs. mass-production, and perceived monetary values is a good way to demonstrate the constructed nature of economic activities and how human values differ across time and cultures (U.S. and global capitalism could be included here, see for example Giroux, 2013; Zizek, 2012; Robinson, 2005; Bello, 2003).

Finally, regarding the nature of history itself, a good point of discussion is the concept that 'history' appears in a variety of *forms* of documentation, from collections of images and objects to the written word, and that all have equal value provided the viewer and reader are literate in those forms. *Interdisciplinary literacy* may be viewed as an umbrella goal that refers to several skills sets: how to recognize and interpret signs and symbols, how to make connections between various types of historical information, and how to transfer knowledge. And the pinnacle of this skill set is to see how all these forms of historical documentation are part of a broad web of visual and cultural communication about human history - encompassing the big ideas of cause and effect, pattern, reflection, preservation and change.

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1 For more detail on similar treaty-rights issues, see Parman's (1994) book on the subject.

2 The site is now part of a public park and sanctuary: *Bruce Vento Nature Sanctuary*. This was the location of our field trip to the upper and lower bluffs of the Mississippi River, to find the original cave site (now boarded up and under water), view the river banks, the old railroad yards and the effigy mounds on the top of the bluffs. Shortly after our arrival at the site, a train went by, and then a bald eagle flew low and parallel all the way along our line of hikers, a thrill for everyone (Mississippi River, http://www.nps.gov/miss/parknews/vento_auth-clark.htm).

3 There have been efforts made to reclaim artifacts and human remains by various tribal and community groups. A teacher from one school in Minneapolis described witnessing the active grief of members from one indigenous group, as they received the reclaimed human bones of ancestors. She described their grief as a "living connection" to ancestors. Such a connection has long been supplanted in many technological societies, for various reasons, by an increasing advancement towards the future rather than looking at the past (Personal Communication, 2013). A difference such as this can be discussed as part of a compare/contrast with students.

4 All of the sculptural items may be made from other materials: paper was very quick and visually sufficient for our canoes, however they could have benefited from stronger material such as paper Mache. If a class wished to study the building of a canoe, miniatures could be made with a much closer look at structure. A couple examples [primarily for the teacher, due to the length and somewhat colonial language used therein] include authentic film footage of indigenous Canadians building a birch-bark canoe, at http://www.youtube.com/watch?v=enMSwz5BWGo; or http://www.birchbarkcanoe.net/video-canoe.htm for Algonquin methods, the indigenous people who were present next to the Jamestown settlement.

5 Although the arts and humanities are not yet *required* in this reform, the newly minted Common Core Standards support interdisciplinary practice and provide clear standards for writing and comprehension, which could easily be applied to any discipline (Avila & Moore, 2012).