# CHRISTINE BALLENGEE MORRIS AND B. STEPHEN CARPENTER, II

## 15. SHARED REFLECTIONS AND DIALOGUES

Art Education, Collaboration, and Public Pedagogy

#### INTRODUCTION

In this chapter we use a dialogic format to explore two cultures/communities that focus on cultural interventions, collaborations, and community building through the arts and (inter)cultural dialogue. Through a dialogic format, we (Christine and Steve) describe two of our own projects. The arts projects we describe use community-based, service-learning approaches and share a similar process of collaborating through public pedagogy. As such, the projects are examples of engaged and embodied community building curricula.

The first project is Collaborative Creative Resistance, an on-going series of public performances in response to the global water crisis. This project centers on the production of affordable point of use ceramic water filters designed to render bacteria-contaminated water potable in communities that otherwise lack adequate access to clean water. The duration of the performances ranges from a few hours to an entire workday. Viewers join in the production of the filters while the performers engage a dialogue about water borne diseases and the global water crisis. Steve is the chief executive artist of Reservoir Studio, the group through which he mobilizes this collaborative project.<sup>1</sup>

The second project is Earthworks Rising, an interactive website that promotes informal learning about indigenous earthworks through a STEAM (Science, Technology, Engineering, Arts, and Math) approach. This project employs a consulting collaborative approach focused on dialogue with community members. The project introduces and emphasizes American Indian science, beliefs and voices, and requires reflective thinking and practice. Christine is the primary investigator in the collaborative project.<sup>2</sup>

Our method of telling our stories is through a dialogic narrative structure, which encourages a critical form of reflection and introspection of experiences and emotions. Ellis, C. (2009), stated introspection reveals a "...vulnerable, muddy, and ambivalent process of making ethical decisions in qualitative research" (p. 3). Our shared reflection and dialogue is a form of introspection as we take up this practice as co-authors and co-researchers involved in a shared process of making

meanings of our collaborative public practices. Being able to reflect on each other's projects in this way, in the spirit of introspection, helped us view what we did not or could not see and make relational connections that strengthened our research process within our own projects. Similarly, we use a dialogic format in this chapter to explore community development, dialogue processes, and lessons learned through introspection. Our process in our two projects is a means to build learning communities that support the lifelong successes and achievements of participants through practices that question social problems, policies, and ethical dilemmas. We wrote our separate stories and exchanged them. Next, we chose places where we wanted to respond and sent back our responses. We then analysed what the other stated and made additional comments, responses, and additions. The resulting stories and histories embrace new perspectives about local governments, the environment, cultural and historical practices, and the human rights and the human condition. In doing so, these new perspectives enable opportunities to rethink, rewrite and re-right our purposes as educators and the ways knowledge is produced through shared dialogue. What is apparent to us are the ways these two projects share similar structures that rely on interactions among participants and facilitators to engage in collaboration, dialogue, and partnerships.

Our shared reflection and dialogue on these projects extends beyond mere description and documentation as it also serves as a means of problematizing our work. Public pedagogy has to this point focused on "various forms, processes, and sites of education and learning occurring beyond or outside of formal schooling. It involves learning in institutions such as museums, zoos, and libraries; in informal educational sites such as popular culture, media, commercial spaces, and the Internet; and through figures and sites of activism, including public intellectuals and grassroots social movements" (Burdick, Sandlin, & O'Malley, 2014, p. 2). While the territory of what constitutes public pedagogy is wide, Burdick, Sandlin, and O'Malley also question the degree to which scholars adequately explicate public pedagogy in terms of "meaning, context, or location within differing and contested articulations of the construct" (p. 3). In part, our dialogic reflection in this chapter is a conscious response to their concerns. Further, our intention is to offer a series of reflections on examples of popular culture, media, history, personal experience, and other sources on which to build a shared reflection and dialogue. We use the section headings as poetic prompts rather than descriptive headings for each section to establish a context for conceptual consideration of ideas. Through such an approach we seek to consider the meanings, contexts, and locations of our two projects, to strengthen our current understandings of our own engagements of public pedagogy, and to enable future possibilities and new knowledge about such practices.

#### WHO OWNS WATER?

Steve: The world is experiencing a water crisis. Thousands of children die every day because they lack adequate access to potable water, and available sanitation

infrastructure for dealing with treated sewage. While scientists and engineers have made progress in the areas of desalination and water filtration, these measures are expensive and available only to people who can afford to pay for these advances. Some scholars speculate the next globally significant battles and wars in the world will be fought over water. Historically, water has been a source of territorial skirmishes and a default demarcation line between continents and other geographical boundaries to distinguish among groups of people.

Within the past 10 years a proliferation of documentary films has been produced that call into question the ownership of water. Films such as *FLOW: For Love of Water* (2008) and *Thirst* (2009) draw attention to the global water crisis. *Blue Gold: World Water Wars* (2008), *Tapped* (2010) and *Water on the Table* (2010) chronicle the centrality of water within communities and societies as a necessity and a human right, as well as its commodification by corporations seeking to exploit its value and role within the daily lives of people. While not an exhaustive list, these films make evident the increasing importance and attention given to the value of water globally and a way in which the discourse of the global water crisis enters into the public consciousness through popular culture. Whether water is a basic human right as declared by the World Health Organization or a commodity as claimed by corporations seeking to make a profit, the struggle over ownership of water is of universal concern.

Christine: At first, in reading the above text, I wanted to say I was shocked to think of water as a commodity that is privileged and yet all survival tools such as food, housing, medicine, and education have been colonized for certain societal members. When I heard your presentation about your project Collaborative Creative Resistance at The Wexner Center in 2013, I wanted to see the documentaries that you spoke about. I watched the videos and I felt pain. I began to question our humanity and intelligence. Why would we allow these actions to occur? How can we allow companies to view water as a commodity since it is an essential survival element for all living things?

Steve: In *FLOW* and *Thirst*, the question, "Who owns water?" is central to the storyline. As the commodification and privatization of water increases across the globe, communities and individuals with financial means to gain access to water will have it, and those who do not, will not. According to the official summary of *Blue Gold*, "Corporate giants force developing countries to privatize their water supply for profit. Wall Street investors target desalination and mass bulk water export schemes. Corrupt governments use water for economic and political gain. Military control of water emerges and a new geo-political map and power structure forms, setting the stage for world water wars." (Retrieved online: <a href="http://www.bluegold-worldwaterwars.com/">http://www.bluegold-worldwaterwars.com/</a>). This film chronicles several examples of people all over the world standing up for access to clean water in the face of powerful corporations, governments, and powerful organizations that seek to control water to make a profit. To quote a line from the film, "If money is more important than water, where are we?"

Christine: News delivered through the film, which uses personal stories can create empathy. Recent research indicates empathy occurs through developing or nurturing people to people relationships (Chen et al., 2012). The interviews and images conveyed a personal edge that made me feel that I knew the people and I wanted to help. For empathy to be maintained there needs to be an action with and for the people. Your project satisfies that need and grows the commitment for attentiveness—someone is listening and working with the people who need help—this is incredible.

Steve: The opening line of the description of the film *Tapped* (2010) places the question of water ownership in clear and direct terms. "Is access to clean drinking water a basic human right, or a commodity that should be bought and sold like any other article of commerce?" (Retrieved online <a href="http://www.tappedthemovie.com/">http://www.tappedthemovie.com/</a>). Similarly, *Water on the Table* is a Canadian documentary film directed, produced and written by filmmaker Liz Marshall. The film features the efforts of Maude Barlow, a former senior advisor on water to the United Nations, fighting to resist privatization of water in contrast to policy makers and economists who argue in favor of water as a commodity.

As artists and socially-minded individuals increase awareness and action in response to the global water crisis, the concept of community will continue to change and evolve. The concept of community will expand beyond relationships among people based on physical proximity like neighbourhoods, although that conception of community will continue. The expansion of community will gain traction and breadth within online and other conceptual spaces yet remain true to the central premise of communities as common spaces of interest, strength, protection, power, and vision.

Christine: In the contemporary history of the United States, I think about programs where the arts have been utilized as a way to communicate social issues or improve the lives of communities that also had economic development. The strongest program was President Roosevelt's New Deal Recovery program (1930s), Works Progress Administration (WPA). This program provided work and opportunities for a variety of professions including artists and craftsmen (Public Broadcasting System, n.d.). The WPA affected so many lives and employed more than 8.5 million people. It is believed that over tens of thousands of artists were funded to create 2,566 murals, 17,744 sculptures that were placed in public buildings. The art, theater, music and writing programs brought art to Americans and two programs grew out of the WPA: the National Foundation for the Arts and the National Endowment for the Humanities. Building coalitions for and with communities for the purposes such as protection, power and vision used to be a federal government's interest. This was not a popular program during its time and viewed by most as simply an economic development plan with communist undertones. But the quality of life increased with arts as part of communities. Is it possible today? I don't think so because our government system is different now.

Steve: Worldwide, more than 3.4 million people die each year from water related disease (http://water.org/water-crisis/water-facts/water/). With only 1% of the water

on the planet considered potable, much of that water is contaminated with disease causing agents, microbes, and bacteria. Organizations such as Potters for Peace, Filter Pure, and Potter's Water Action Group engage actively in the production of point of use ceramic water filters in communities around the world where adequate access to potable water is scarce or non-existent. In 1998, the production and use of affordable, appropriate technology colloidal silver-enhanced ceramic water filters were highlighted by the work of Mazerigos in response to the aftermath of Hurricane Mitch in several countries in Central America. Scientists, civil engineers, and fieldwork analysis have produced results that demonstrate these clay, sawdust, and colloidal silver filters effectively eliminate better than 99% of most water-born disease agents.

In 2012, with the assistance of student members of Reservoir Studio<sup>3</sup>—an underground interdisciplinary collective of students, faculty, and staff from across the Penn State campus unified in the mission of research, development, distribution, and education of point of use ceramic water filters—and collaborating visiting artist Richard Wukich, I led a public performance entitled Collaborative Creative Resistance. Supported by an internal grant from the College of Arts & Architecture at Penn State, we conducted an 8-hour public performance as a mode of public pedagogy in response to the global water crisis. Throughout the day we mixed clay by hand and used a 7-foot tall steel hydraulic ram press to produce point of use ceramic water filters. We conducted the performance in the plaza just in front of the main doors to the Palmer Museum of Art, which faces a main street that passes through the center of campus. We invited interested viewers/passers-by to help us produce filters. As the viewers transformed into participants we shared information with them on the production and use of ceramic water filters, local and national water related health issues, and the global water crisis. We also made available brochures, hand-outs, videos, and conversations to extend their curiosity and understanding.



Figure 15.1. Collaborative creative resistance performance, Palmer Museum of Art Plaza, The Pennsylvania State University

Christine: The idea of performing public pedagogy for social reformation is dialogical and aligned with Paulo Freire's *Pedagogy of the Oppressed*. In an interview I did with Freire in 1996 I found his pedagogical theory requires educators and students to examine self, culture, and community. It also addresses issues of power, voice, conflict, class, gender, and race. Freire's philosophy and application illustrates the value he placed on education through life experiences/knowledge, the arts, and cultures of the people. This project that you are describing illustrates that type of education for life-long change. There is hope within your words and actions. Artisans and community members making filters for others for the purpose of clean water provides a forum to make change and to be a part of that change.

Steve: I have conducted similar water filter public pedagogy performances at other universities, in the context of scholarly conference presentations, and as part of community sustainability festivals. A key goal of these performances is to produce several water filters in a temporary public space in the same manner as those produced in a permanent production facility. The 2012 Collaborative Creative Resistance performance, and the other similar subsequent performances serve as examples of participatory public pedagogy because they direct attention to the global water crisis through the embodied performance of ceramic water filter production. While sifting sawdust and wedging clay to produce filters similar to the ones on display in the process of filtering dirty water, participants have acknowledged the ease with which they have access to potable water in plastic bottles, water fountains, commercially available water filters and pitchers, and refrigerator water dispensers in contrast to this more complex process. In addition, these interactive public performances provoke participants to question the centrality of water to the existence of all living beings and the reality of water as a human right for all human beings. Inspired by their direct interaction with the production of an approach to provide clean water, during each performance I overhear participants who make explicit statements about their own lack of awareness of the inaccessibility of water for many communities around the world, including communities within the United States.

## WHO OWNS EARTHWORKS?

Christine: In 1848, under the auspices of the Smithsonian Institution, Squier and Davis (1998) documented what is now referred to as the Newark Earthworks, Ohio (USA). With the understanding the earthworks has been ongoing, the Octagon Mound in Newark, Ohio was named one of the seventy wonders of the ancient world (Scarre, 1999), and yet this American Indian spiritual space is occupied by a private country club whose golf course winds around the mound.

Earthworks are structures built in North America around 2,000 years ago and occur in various shapes, from simple circles and images of animals to complex structures such as the Octagon Earthworks, an earthen lunar calendar. Oral histories of many Nations/tribes including the Cherokee, Shawnee, and Choctaw state mounds served multiple purposes including social, spiritual, and bartering. Although the story of

the Octagon mounds begins over 2,000 years ago, it is important to know many different tribes are still creating Earthworks—the desire to connect to the earth has not changed. New mounds can be found in Georgia and Oklahoma.

Steve: A key point you make evident in your description of earthworks is the ongoing history of these structures as opposed to the misguided notion Native North Americans no longer exist and are relegated to exile in past narratives of American history. While the Octagon Earthworks project is dedicated to working with a structure created more than 2,000 years in the past, its presence, role, and legacy live on through your work and through other earthworks constructed in our lifetime. The earthworks are a living history chronicled through collective cultural production. I find inspiration in these works and the example they provide of the civilizations from which they originated. That said, I am intrigued to learn more about the North American civilizations who built and continue to build these structures in contrast to cultural productions, achievements, and philosophies of Western civilizations that have been and continue to enjoy a privileged position within school curricula and the social imaginary in the West.

Christine: The civilizations that built the mounds were large and lived in cities similar to those of the Mayans. In the book *The Native American* (1993), David Hurst Thomas, Jay Miller, Richard White, Peter Nabokow, and Philip Deloria, explain that the archaeological history of the native peoples of the Americas goes back more than 30,000 years, and by the time Columbus landed in the "New" World, it was an old world that had already seen civilizations rise and fall. They claim the continents were populated by some 75,000,000 people who spoke 2,000 distinct languages and had developed a rich diversity of separate cultures, all linked by a network of trade.

Elders from many tribes recall the people were farmers, fishers, hunters, and gatherers of wild plant foods (personal communications, 2005). They lived in small villages scattered along the major tributaries of the Ohio River—especially the Great and Little Miami, the Scioto, and Muskingum rivers. From many archaeological digs, staff from the Ohio Historical Society (a quasi government agency that is in charge of this site) state that the earthwork builders were also known for their magnificent works of art they crafted from materials gleaned from the ends of their world: copper from the upper Great Lakes, mica from the Carolinas, shells from the Gulf of Mexico, and obsidian, a black volcanic glass, from the Rocky Mountains. These exotic materials may have come to Ohio as valued commodities in a network of trade, but there is little evidence of what items the traders might have given in exchange. Knives and bladelets made from Ohio's beautiful Flint Ridge flint are found scattered throughout eastern North America, but not in the quantities that would suggest a fair trade for the bushels of mica and copper found at Ohio Hopewell sites.

The people built many monumental ceremonial centers. The locations of the earthworks were always near a water supply, which makes sense for many reasons since the waterways were the ancient highways.

The earthworks at Newark were social gathering places, religious shrines, pilgrimage centers, and even astronomical observatories. The builders paid close attention to soil texture and color and knew what type of clay and soil to use so the earthworks would not collapse. In a 1992, an archeological dig at the Great Circle in Newark found that the outside was made with dark earth while the inside was lined with brighter yellow-brown clay. Brad Lepper states, "In Native American societies, different colors have different associations and mean different directions, different soil colors probably had symbolic meaning" (1996, p. 22).

Steve: As you describe the earthworks they seem to function as more than landscape elements. Rather, the earthworks seem to take on the role of culturally significant sites that serve and signify multiple purposes. In this light, the earthworks are symbolic and actual community learning spaces.

Christine: Back in the early 1980s Ray Hively, a physicist, and Robert Horn, a philosopher, analyzed the aesthetically ideal geometry of the Octagon (actually a conjoined octagon and circle – see above) for astronomical alignments. Solar alignments were not to be found in the structure, but they found—much to their surprise—several lunar ones. Hively and Horn (1982) determined the major rising and setting points of the moon, encompassing an 18.6 year cycle, are incorporated into the architecture of the Newark Earthworks. They speculate this astronomical information is not just symbolically encoded into the site plan, but also the substantial earthen walls, with their long sight lines and a height that corresponds, more or less, to eye level, are massive (and therefore long-lived and tamper proof) fixed instruments for making astronomical observations. Geographically, the Octagon is positioned in an area that needed little clearing for a sightline.

There are also relationships between Newark Earthworks and other earthworks in Ohio, which has been made evident in the ratio of arc distance to longitude difference, infer precise understanding of the mathematical ratio of latitude to longitude and a precise understanding of astronomic constants and the scale of the earth. The redundancy of expression of the same relationships makes it very difficult to discount the relationships as coincidental. I conclude that the builders of the Middle Ohio Earthworks understood aspects of astronomy, scale and shape of the earth, their location on the earth, and how to place, find, and point out locations.

Native arts, including the Earthworks, are closely related to cultural identity and connect space and spirituality, which gives conceptual basis for understanding place and space within traditional native cultures. As Vine Deloria states, spirituality is a way of Native life, which differs from non-Natives who compartmentalize (1969). What this means to me is that words, spaces, music, dance or visual arts, are the celebration of human continuity with the earth and identity. Specific ties to the land unite communities and reflect worldviews. As Steven Leuthold states in his book *Indigenous Aesthetics* (1998) cardinal directions in many native worldviews locate humans in relation to the cosmos in a profound, mythic way. Mythic space is commonly arranged around a coordinate system of cardinal points and a central vertical axis. This construct may be called cosmic, for its frame is defined by

events in the cosmos, which speaks to landscape design and theory taught at many universities today.



Figure 15.2. A group of American Indians and advocates on top of one of the Octagon Mound in Newark, Ohio (USA)

Steve: I am seeing connections between place and design, location and landscape through your accounts of the earthworks. In a similar manner, the earthworks are a curriculum in the sense the reconceptualists reimagined educational experience. The reconceptualization of curriculum studies was primarily grounded in a shift focus from curriculum as a fixed plan in the Tylerian sense to a fluid "running of the course" and "complicated conversation" (Pinar, 2012). An interpretation of the earthworks as curriculum reveals their function as a layered and complicated engagement in which they can be read as both specific locations and conceptual spaces. Their inherent interconnections among past, present, and future speak to their centrality in the identity of the cultures responsible for their existence. At some level then they are creations about creation and remind me all cultures have creation stories as a means to establish a sense of purpose and being. The earthworks are testaments to the human need to establish a sense of self as part of establishing a sense of the world and purpose within the world. I think we can learn quite a bit about ourselves through comparison with others, not for the purpose of establishing differences in importance or value but rather differences in kind, purpose, and ideology.

Christine: All cultures, including Native cultures are always in a transitional process. Political and social constructs and the negotiation of traditions, needs, and contemporary issues create cultural transformation in relation to personal interpretations. Most importantly we can learn to ask questions, listen, and observe. For our students to learn multiple ways of knowing and doing, we must introduce them to sites like the Octagon Earthwork. These sites represent integrated ideologies and imagination. We might never know the extent of how these earthworks were built and utilized but we can imagine. Which brings me to the idea of the game.

#### **GAME BUILDING**

Christine: Digital games in the classroom and how games are used in general has been an interest to the project, Earthworks Builders. In the past, the Earthwork Builder Culture has been poorly addressed in student learning materials. Through game play, we hope players will gain a deeper understanding of the Mound Builder culture and grasp, to some degree, the profound and complex issues faced by those who study a culture that has left no written records. The idea for the development of the games is in keeping with James Gee's idea of Big G and Little G – "The "game" is the software in the box and all the elements of in-game design (2007). The "Game" is the social setting into which the game is placed, all the interactions that go on around the game. Building upon this idea, we built out from the game, through a website and developed a free, self-sustaining learning community (http://www.earthworksrising.org/).

The website hosts multiple digital systems, including games, artifacts, earthworks, and contemporary art forms and challenges. Use of video games in the classroom incorporates and connects to many 21st century skills, helping students understand key concepts and information about visual culture, in this case the earthworks, through something they are already familiar with—video games. Integrating games into the classroom curriculum applies current research to teaching and leaning.

We wanted the design process to serve as one role model in how the arts embrace collaborative practices and create coalitions. We applied a consulting collaborative approach by interviewing and researching multiple viewpoints/people and carried that method throughout the game design. Smith (2005) states that this process encourages reflective thinking and practice. Consulting collaborative approaches include critical forms of reflective experiences, cultural studies, and research experiences that can challenge established ways of thinking and acting by encouraging a re-examination of one's own values and practices. This process can build learning communities, which will support communities' lifelong successes and achievements through practices that question social problems, policies, and ethical dilemmas.

Many art educators have advocated community-based, service-learning approaches for years and quite successfully (Congdon, Blandy, & Bolin, 2000; Daniel, 2001; Taylor & Ballengee Morris, 2004). Collaborating and working within a coalition is quite a delicate balance.

Steve: While I have experience designing, using, and analyzing interactive hypertexts (Taylor & Carpenter, 2005; Carpenter & Taylor, 2003) and online galleries (Carpenter & Cifuentes, 2011; Cifuentes, Carpenter, & Bulu, 2006) to promote collaborative learning, I have not explored the format of a game to promote similar experiences. The Earthworks Rising project is an exemplar of gaming as a pedagogical approach. Further, the Earthworks Rising project offers a model for interactive learning experiences designed to interrogate content informed by social, cultural, political, aesthetic, ethical, and historical issues. By taking the conceptual, spiritual, and cultural purposes of the earthworks and shifting their location to the

digital realm of gaming your project puts me in mind of some public performance interventions (Richardson, 2010), environmental responses, community health and change (McLean, 2011), and social media activism (Jenkins, 2006). That is, your project is an example of how community artworks, interdisciplinary creative projects, and other forms of cultural production created for and existing within the public sphere might function in response to specific issues, challenges, and conditions mediated through digital possibilities. The digital format of this project offers possibilities that could be adapted to enable users to explore the social, cultural, political, aesthetic, ethical, and historical issues and significance of the global water crisis in general and the production, distribution, and use of point of use ceramic water filters in particular. I am inspired.

## PEDAGOGY

Christine: Creative thinking, image making, gathering of multiple perspectives, making connections, and reflective thinking are facilitated when people make and play games (Keifer-Boyd & Maitland-Gholson, 2005). Additionally, many art educators have been using Second Life, an online virtual environment, to



Figure 15.3. EarthWorks Rising Website

explore identity issues. Second Life "encourages the kinds of learning we believe are most meaningful in art education – interactive, collaborative, inquiry-based, constructive, connected, interdisciplinary, and relevantly provocative" (Taylor et al., 2006, p. 215).

Technology, in general, can allow a teacher to move into the role of facilitator (Morrison, Lowther, & DeMeulle, 1999), partner (Prensky, 2010), coach, and advisor. Teachers can guide students in thoughtful and researched sharing of ideas, recognizing that they themselves do not have to know all of the answers. The role of the student can also be transformed from passive receiver of knowledge to active producer (Jenkins, 2006; Gee & Hayes, 2011; Prensky, 2010). Video games provide powerful and complex learning tools and environments through their inherent ability to combine such multimedia as video, sound, text (including narrative), visual information (images, tables, graphs), and simulations, including pulling information from databases in real time.

Steve: I agree with you about the possibilities technology in general and virtual worlds in particular might afford teachers and learners. There is something about working, learning, thinking, and imagining within a virtual space—one related to but other than the spaces in which we routinely interact with others—that is liberating. To some degree, the work we have been doing with the Earthworks Rising and Collaborative Creative Resistance projects are exercises in the creation and exploration of virtual worlds. Both the video game and the public performances are related to but other than routine pedagogical, curricular, and cultural spaces in which we exist routinely. These spaces encourage possibilities for thinking, interacting, and re-imagining that are either impossible or improbable otherwise. Both projects are forms of cultural intervention, interrupting the mainstream of contemporary culture to provide a space for another way to consider history, theory, and ideas. The creation of these projects, as well as the participation within them, requires collaborations among participants, viewers, and users. As such, they are examples of engaged and embodied community building curricula.

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All photos courtesy of the authors.

#### **NOTES**

- Collaborative Creative Resistance has been supported by an internal grant from the Institute for the Arts and Humanities at Penn State and small external donations. For more information see <a href="http://sites.psu.edu/reservoirstudio">http://sites.psu.edu/reservoirstudio</a>
- <sup>2</sup> Earthworks Rising has been supported with a National Endowment for the Humanities grant and a HASTAC grant (Humanities, Arts, Science, and Technology Alliance and Collaboratory), funded by Mozilla, Bill and Melinda Gates, and the MacArthur Foundation.

3 Steve is founding director and chief executive artist of reservoir studio, http:sites.psu.edu/reservoirstudio

#### REFERENCES

- Burdick, J., Sandlin, J. A., & O'Malley, M. P. (2014). Problematizing public pedagogy. New York, NY: Routledge.
- Carpenter, B. S., & Cifuentes, L. (2011). Visual culture and literacy online: Image galleries as sites of learning. Art Education, 64(4), 33–40.
- Carpenter, B. S., & Taylor, P. G. (2003). Racing thoughts: Altering our ways of knowing and being through computer hypertext. Studies in Art Education, 45(1), 40–55.
- Chen, D. C. R., Kirshenbaum, D. S., Yan, J., Kirshenbaum, E., & Aseltine, R. H. (2012). Characterizing change in student empathy throughout medical school. *Medical Teacher*, 34, 305–311.
- Cifuentes, L., Carpenter, B. S., & Bulu, S. (2006). An online collaborative environment for sharing visual culture. *Journal of Visual Literacy*, 26(2), 45–62.
- Congdon, K., Blandy, D., & Bolin, P. (2000). Histories of community-based art education. Reston, VA: National Art Education Association.
- Deloria, V. (1969). Custer died for your sins: An Indian manifesto. New York, NY: Macmillan.
- Ellis, C. (2009). Telling tales on neighbors. Ethics in two voices. International Review of Qualitative Research, 2(1), 3–28.
- Gee, J. P. (2007). What video games have to teach us about learning and literacy (1st ed.). New York, NY: Palgrave Macmillan.
- Gee, J. P., & Hayes, E. R. (2011). Language and learning in the digital Age. Abington, MA: Routledge.
- Hively, R., & Horn, R. (1982). Geometry and astronomy in prehistoric Ohio. *Archaeoastronomy*, 13(4), S1–S20. Jenkins, H. (2006). *Fans, bloggers, and gamers: Exploring participatory culture*. New York, NY:
- Jenkins, H. (2006). Fans, bloggers, and gamers: Exploring participatory culture. New York, NY. New York University Press.
- Keifer-Boyd, K., & Maitland-Gholson, J. (2005). Engaging visual culture. Worchester, WA: Davis Publications.
- Lepper, B. T. (1996). The Newark earthworks and the geometrical enclosures of the scioto valley: Connections and conjectures. In P. Pacheco (Ed.), A view from the core: A synthesis of Ohio Hopewell Archaeology (pp. 225–241). Columbus, OH: Ohio Archaeological Council.
- Leuthold, S. (1998). *Indigenous aesthetics: Native art and identity*. Austin, TX: University of Texas Press. McLean, C. (2011). *Creative arts in research for community and cultural change*. Calgary: Detselig Enterprises, Inc.
- Morrison, G. L., Lowther, D. L., & DeMeulle, L. (1999). *Integrating computer technology into the classroom* (1st ed.). Upper Saddle River, NJ: Merrill, Prentice Hall.
- Newark Earthworks in Ohio. (n.d). Retrieved December 27, 2008, from http://www.octagonmoonrise.org PBS. (n.d). Retrieved November 20, 2013, from http://www.pbs.org/wgbh/americanexperience/features/general-article/dustbowl-wpa/
- Pinar, W. (2012). What is curriculum theory? New York, NY: Routledge.
- Prensky, M. (2011). From digital natives to digital wisdom: Hopeful essays for 21st century learning. Thousand Oaks, CA: Corwin Press.
- Richardson, J. (2010). Interventionist art education: Contingent communities, social dialogue, and public collaboration. *Studies in Art Education*, 52(1), 18–33.
- Scarre, C. (1999). The seventy wonders of the ancient world. London: Thames & Hudson.
- Smith Tuhiwai, L. (2005). Decolonizing methodologies: Research and indigenous peoples. London: Zed Books, Ltd.
- Squier, E., & Davis, E. H. (1998). Ancient monuments of the Mississippi valley. In Smithsonian contributions to knowledge. Washington, DC: Smithsonian Institution. (Original work published, 1848)

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- Taylor, P. G., & Ballengee Morris, C. (2004). Service-learning a language of "we." *Art Education*, 57(5), 6–12.
- Taylor, P. G., & Carpenter, B. S. (2005). Computer hypertextual "uncovering" in art education. *Journal of Educational Multimedia and Hypermedia*, 14(1), 25–45.
- Taylor, P. G., Carpenter, S., Ballengee Morris, C., & Sessions, B. (2006). *Interdisciplinary approaches to teaching art in high school*. Reston: VA: NAEA
- Thomas, D. H., Miller, J., White, R., Nabokow, P., & Deloria, P. (1993). *The native American*. Atlanta, GA: Turner Publishing, Inc.

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