The STEAM Journal

Volume 5 | Issue 1 Article 17

February 2023

Exhibiting STEAM: Curating Community Conversations through Library Collections

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Recommended Citation

Hilles, Stefanie; Boehme, Ginny; and Makarowski, Rachel (2023) "Exhibiting STEAM: Curating Community Conversations through Library Collections," *The STEAM Journal*: Vol. 5: Iss. 1, Article 17. DOI: 10.5642/steam.SMFY7086
Available at: https://scholarship.claremont.edu/steam/vol5/iss1/17

STEAM is a bi-annual journal published by the Claremont Colleges Library | ISSN 2327-2074 | http://scholarship.claremont.edu/steam

Exhibiting STEAM: Curating Community Conversations through Library Collections

Abstract

This article discusses the successful collaboration of an art librarian, a science librarian, and a special collections librarian in their efforts to engage the community in STEAM (Science, Technology, Engineering, Arts, and Math) conversations through the curation of a STEAM-based exhibition of artist books. The exhibition was an opportunity to showcase STEAM's interdisciplinarity through library collections that, until this point, had remained unexplored. The goal was to demonstrate how scientific principles have inspired both contemporary artists and those throughout history, dispelling the myth that artists are not influenced by science. The Libraries' Special Collections proved an excellent resource to investigate these ideas as it held numerous artist books that take science as their subject. An opportunity also presented itself to commission a regional artist and University alumna to create a new artist book based on scientific collections held at the University's natural history museum, as well as work with the local middle school to engage students in the making of artist books.

Keywords

STEAM, Community, Libraries, Education

Exhibiting STEAM: Curating Community Conversations through Library Collections

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Planning the Exhibition

In order to encourage scholarly exploration across disciplines, Miami University launched a campus-wide STEAM initiative, which provided the catalyst for our exhibition, *A Symbiotic Affair: The Relationship Between Art and Science*. We were intrigued by the relatively large collection of artist books in the Walter Havighurst Special Collections, University Archives, and Preservation in King Library and wanted to use them to showcase a physical manifestation of the interdisciplinarity of science and art.

The first step in the planning process was to work with the special collections staff to identify items for inclusion in the exhibition. Items were considered if they had a scientific focus or inspiration and were artist books (i.e., a book that is an art object in and of itself, not a book about an artist or a book that illustrates art). The list of books that met these criteria were then assessed for potential preservation concerns, as we wanted to ensure they could be displayed for several months without worrying about deterioration or other damage. Thanks to the generosity of the head of special collections, we were allowed to purchase additional artist books for this exhibition that would address noticeable gaps in the collection.

During our selection process, we noticed that several of the items meeting our criteria were created by the same person: Diane Stemper. In researching the artist, we discovered that not only was she an alumna of Miami University, she also was an active artist local to the Cincinnati area. Many of Diane's artist books already owned by Special Collections focused on natural history and the history of science, including several centering on Charles Darwin. Given her relationship with the University, we decided to reach out to Diane to see if she would be interested in creating a new artist book specifically for our exhibition. During our initial conversation, she discussed how researching collections in science museums was a major part of her artistic practice. Ginny Boehme, Science Librarian, had worked closely in the past with Steve Sullivan, the Director of the Hefner Museum of Natural History. After approaching him as a potential collaborator and receiving an enthusiastic agreement, Diane began working with Steve and exploring the various specimen collections at the Hefner.

Curating Conversations

Although we originally planned for the exhibition to only be held at Special Collections, throughout the planning process and our discussions with Steve and Diane, it became clear that we had the opportunity to expand *A Symbiotic Affair* to a second location: the Hefner Museum of Natural History. This allowed us to create a dialogue between the two collections and spaces, reinforce the intersections between art and science, and introduce artist books to new audiences.

At Special Collections, artist books were curated from the collection and arranged in display cases by broad scientific topic: math and computer science, astronomy, climate change and environmental science, biology and anatomy, and architecture. There was also a section dedicated to the history of artists illustrating scientific texts, focusing on Karl Blossfeldt's 1929 *Urformen der Kunst*

(Originary Forms of Art), a photobook of botanical studies. Didactics were written to introduce viewers to the broad exhibition categories as well as some of the individual artist books.

At the Hefner, the installation focused on Diane's artist book and the natural history of the specimens used as her inspiration. Steve took the lead in curating this installation, using several of the specimens Diane studied and integrated into her commissioned piece. Our intention was to introduce viewers to the reciprocal cycle of art and inspiration, and how science can be incorporated into the artistic process.

From the onset, Diane wanted her artist book to deal with endangered species. While she initially thought she would focus on the polar bear or tiger, through her research she became fascinated with the endangered freshwater mussels native to southern Ohio. Although these organisms were once plentiful, they have suffered drastic population decline due to overharvesting of their iridescent shells to make decorative buttons and widespread pollution of their habitat. Diane created her new work, *Mussels: What Was/What Remains,* in response to these creatures. In Diane's words, "The freshwater mussel may not have brilliant colors or be gargantuan in size, but it has a mighty impact, filtering water and providing food for the animals in an ecosystem, not only for our own streams and rivers close by, but for the entire waterway system of North America."

Figure 1 - Exhibit cases in Special Collections showing objects for math & computer science, astronomy, and environmental science subject areas.

Once completed, copies of Diane's commissioned artist book were exhibited in both Special Collections and the Hefner Museum, creating a dialogue between the spaces and demonstrating the interwoven nature of art and scientific practice. To complement the book and to showcase Diane's inspiration, the installation at the Hefner emphasized the study of natural sciences through the inclusion of the specimens Diane studied. It also examined in more detail the impacts of freshwater mussels on their ecosystem and the far-reaching consequences of their declining populations on our environment. In contrast, the installation at Special Collections emphasized the impact of science on artistic practice, using Diane's piece as a focal point for this conversation and as a physical centerpiece for the exhibition. Signage encouraged viewers to see the work at both locations, leading to additional community

engagement. Viewers who would not normally visit Special Collections came because of the exhibition at the Hefner, and vice versa.

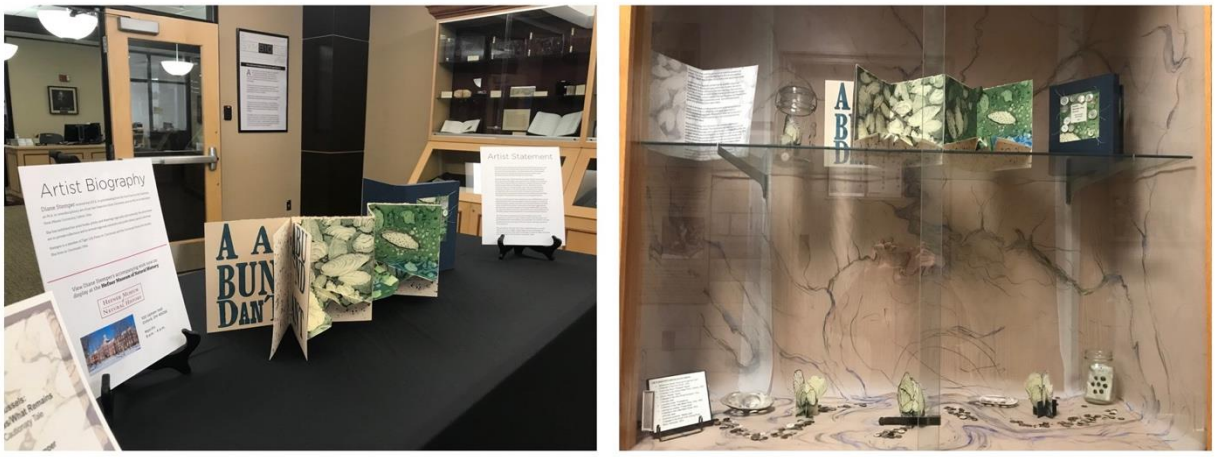

Figure 2: Centerpiece exhibits in Special Collections (left) and Natural History Museum (right).

Engaging the Community

To celebrate the opening of the exhibition and to tie into the larger campus-wide STEAM initiative, we organized a guest lecture by a Miami professor of art history, Pepper Stetler, who researches the importance of photography in Germany's Weimar Republic. She was more than happy to discuss Karl Blossfeldt's *Urformen der Kunst* as a valuable example of photography's ability to expand and deepen our knowledge of the natural world. Blossfeldt's book was temporarily removed from the exhibition case for display at the lecture alongside other important photographic publications contemporary to Blossfeldt, which allowed attendees to interact with the works directly.

A Symbiotic Affair also provided some interesting opportunities for community engagement beyond the University. The Talawanda Middle School Art Club learned about the exhibition and wanted to do some collaborative programming. To start, Stefanie Hilles, Arts and Humanities Librarian, gave them a tour of our exhibition at Special Collections and discussed how books can be used as an art medium. Rachel Makarowski, Special Collections Librarian, created a pop-up exhibition of illustrated scientific works ranging from the sixteenth to the nineteenth centuries for students to view in the reading room following their tour. We introduced them to the different texts that had been chosen and focused on how science relied on artists and illustrative printing processes to convey new knowledge and make advances in the field. Students were encouraged to identify differences between the art used in the various books and to examine how the changes happened over time. Using their observations as a foundation, we helped them interrogate the interdependence of science and art and how this relationship worked to push forward new illustrative printing technology and techniques.

Figure 3: Class tour in Special Collections

Following their visit, the students created their own collaborative artist book in response to the exhibition. The young artists were charged by their club sponsor to find their inspiration from the natural world around them, including the plants found in parks, on hiking trails, and even in their own backyard. Their botanical illustrations were then compiled and printed as a limited edition run, copies of which were gifted to the librarians for their help and to the library for inclusion in Special Collections. The works we highlighted in our exhibition, which in turn inspired the work that was created by the art club students, embody the symbiotic relationship between art and science.

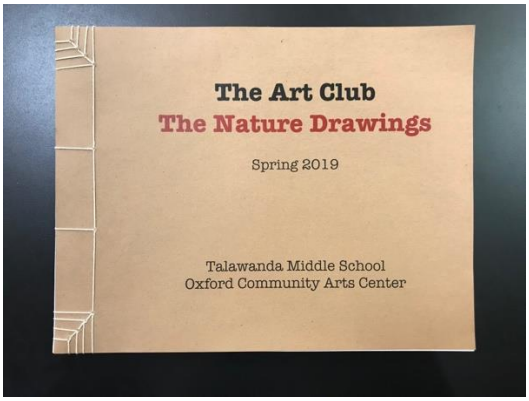

Figure 4: Cover of artist book created by art club students.

Conclusion

As STEAM education and initiatives grow to become more commonplace, the library serves as a natural space to actively foster these types of interdisciplinary connections for the local community. It provides not only the physical space for STEAM educators to collaborate, but also the necessary resources and expertise to create and facilitate these initiatives.

Exhibitions – particularly those in libraries and museums at academic institutions – exemplify public facing interdisciplinarity as there are always multiple approaches to interpreting artifacts. Through the display of these artifacts, curators make the conscious decision to choose and blend approaches as they create the labels for public consumption. Libraries at universities serve as a space

not bound by any single discipline, but rather for the purpose of advancing knowledge through research and collaboration. Academic museums, though typically bound by a discipline, also work to advance knowledge and collaboration in the same fashion. Both spaces also attract many different students with widely varied needs and interests. Museums and libraries, as long standing partners in both the academic and public spheres, also have structures in place to facilitate successful programs for both audiences. Additionally, these same museums and libraries open their spaces to the public at little to no cost, which would otherwise serve as a barrier to entry. These spaces, therefore, are a perfect hub for the type of open interdisciplinary work that STEAM educators require.

On the flip side, because these libraries and museums are funded primarily through their institutions, this often becomes a limiting factor in the level of support they can offer to collaborators, as well as the variety of spaces, equipment, and materials they may have available for exhibition spaces. Faculty and researchers may also not be fully aware of the expertises and skillsets that library staff possess and may not view them as viable partners in STEAM collaborations. However, despite these limitations we argue that exhibitions like those described in this article help bring much needed visibility to all of these factors: the exhibition spaces, the collections and materials available, and the varied expertise of the library staff. Public demonstrations in spaces like libraries and museums of STEAM-related initiatives, such as exhibitions, prove to be beneficial to all involved in not only making these collaborations possible but also fostering potential for additional partnerships. Exhibitions bring greater visibility, which encourages additional partnerships that can lead to other initiatives which continue to bring greater visibility, thus creating a perpetual cycle of mutual benefits emulating the interwoven nature of art and science.