

**INTRODUCTION**

In the United States, residential and commercial building consumes 40% of all energy and 75% of all electricity (U.S. Energy Information Administration, 2012). Globally, at least 30% of global anthropogenic GHG emissions come from buildings and construction operations (Satterthwaite, 2008). The contemporary green building movement promotes buildings that lessen these environmental impacts through better construction, operation, maintenance, and lifecycle considerations (USGBC, 2016). However, few people outside the building industry understand the myriad benefits of building green (Cole, 2013).

This qualitative case study project is a multiple-case study with multiple embedded units of analysis (Yin, 2017). In our study, “green building” is defined as one that is designed with multiple embedded units of analysis (Yin, 2017). The eight museums were chosen as part of a larger study being conducted by faculty mentor Dr. Laura Cole, who studies green building education, and Dr. Georgiana Lindley, a scholar of museum architecture at the University of Colorado (CO) Boulder.

**FINDINGS**

The process began with a set list of keywords and search assistant with the assistance of the faculty mentor. The search progressed. For each museum, we sought press coverage (the same national outlets were used for all eight museums) and the LA Times; and architectural press, represented by the New York Times; architecture blogs, such as ArchDaily and Dezeen. This project explores the possibility that the museum's green architecture can be a communication tool for public sustainability education. Press coverage for LEED-Certified without further detail.

Below are the descriptions of the categories in the press coverage.

- **Negative comments** = articles that were generally negative about the museum building.
- **No green info** = article about the museum project that did mention LEED or anything green without giving further detail about the green features of the building.
- **Recycled Materials** = mentioning used recycled materials and systems, usingless energy and water and reduces greenhouse gas emissions, into building construction and daily operations in growing a healthy environment.
- **Sustainability** = a building's design and operation efficiency, water and energy savings, reduced impact on the environment, and other benefits of building green.
- **Recycled Materials** = mentioning used recycled materials and systems, using less energy and water and reduces greenhouse gas emissions, into building construction and daily operations in growing a healthy environment.
- **Sustainability** = a building's design and operation efficiency, water and energy savings, reduced impact on the environment, and other benefits of building green.
- **Sustainability** = a building's design and operation efficiency, water and energy savings, reduced impact on the environment, and other benefits of building green.
- **Sustainability** = a building's design and operation efficiency, water and energy savings, reduced impact on the environment, and other benefits of building green.
- **Green strategies** = articles that elaborate on the green strategies, six articles detail the sustainability practices in its Midwestern context and promoted some green building education through the press in the local community.

**FINDINGS**

**BOSTON CHILDREN'S MUSEUM**

The Boston Children's Museum was largely covered in press that was local to Boston with only two instances of coverage in the national press. Notably, the majority of press pieces did not directly address the sustainable features of the building's design, suggesting that the sustainable aspects of the building's design were not at the forefront of press coverage. The museum received a mix of positive and negative commentary, which largely focused on user experience of the design.

**DENVER MUSEUM OF NATURE AND SCIENCE**

The green aspects of Denver Museum of Nature and Science were primarily covered by the local press at the Denver Post. The museum aimed to leverage the design to environmental hands-on systems. This eco-friendly structure uses half of the energy of comparable buildings. To achieve this accomplishment, the museum employs green strategies, such as the recycled water, heating and cooling plant that conserves energy to use in the building. However, only two out of six articles discussed the green features. Two articles mentioned LEED certification and green features. Half of the articles did not mention the green building at all. Overall, this LEED Platinum building design made a minor splash in the media.

**CALIFORNIA ACADEMY OF SCIENCES**

The California Academy of Sciences (CAS) was the most green, the most iconic architecturally, and the most heavily covered in the press compared to the other case study museums. The environmentally conscious construction made the museum the world's first museum to receive platinum status. The green features include a LEED Gold certification and various green features of the building – most notably the living roof (picted above). This data shows that the museum provided an excellent campaign for public green building education. Many press articles focused on the wonderful relationship between structure and nature that portrayed the academy's sustainability. The museum is now heavily covered in the local media, especially in the popular and in-depth, the blogs ArchDaily and Dezeen. This project yielded a database of press coverage in varying quantities for all eight museums.

The articles were analyzed by the undergraduate research assistant with the assistance of the faculty mentor. Press articles were coded with pre-determined themes, collaboratively reviewed and revisioned.

**DEFINITION OF TERMS**

The following terms were used in the field work and are explained in detail in our methodology:

- **Recycled Materials** = mentioning used recycled materials and systems, using less energy and water and reduces greenhouse gas emissions, construction and daily operations in growing a healthy environment.
- **Sustainability** = a building's design and operation efficiency, water and energy savings, reduced impact on the environment, and other benefits of building green.
- **Green strategies** = articles that elaborate on the green strategies, six articles detail the sustainability practices in its Midwestern context and promoted some green building education through the press in the local community.

**GREEN FEATURES ANALYSIS TERMS**

- **Sustainability** = a building's design and operation efficiency, water and energy savings, reduced impact on the environment, and other benefits of building green.
- **Recycled Materials** = mentioning used recycled materials and systems, using less energy and water and reduces greenhouse gas emissions, construction and daily operations in growing a healthy environment.
- **Sustainability** = a building's design and operation efficiency, water and energy savings, reduced impact on the environment, and other benefits of building green.
- **Green strategies** = articles that elaborate on the green strategies, six articles detail the sustainability practices in its Midwestern context and promoted some green building education through the press in the local community.

**REFERENCES**