

McKinley Environmental Center

A Neighborhood Environmental Learning Center in Beltzhoover, City of Pittsburgh

Steve Lee

...quoting Louis I. Kahn from *World Architecture 1*, Studio 12 Books, London, 1964, "I do not like ducts, I do not like pipes. I hate them really thoroughly, but because I hate them so thoroughly, I feel that they have to be given their place. If I just hated them and took no care, I think that they would invade the building and completely destroy it. I want to correct any notion you may have that I am in love with that kind of thing."

QUESTION

What is the role of the architect in improving social equity in our communities?

PROMPT

"In urban settings, neighborhoods with low socioeconomic status have some of the highest needs for climate adaptation and resilience-building efforts. Applying the concept of social equity to these efforts can help ensure that all communities are involved." <https://toolkit.climate.gov/topics/built-environment/social-equity>

The Pittsburgh Parks Conservancy is a nonprofit formed in 1996 to work with the city to restore its parks. They have completed over 20 park restorations and are committed to expanding their educational programs directly into the neighborhoods with a network of Environmental Learning Centers in community park settings.

This typology presents a unique challenge for architects. The design considerations span the domains of urban design, public space making, neighborhood revitalization, social planning, technology and poetics. This studio will consider the broader community & urban questions but be laser-focused on the issues of building integration.

CONTEXT

"The Beltzhoover neighborhood is currently the subject of a revitalization effort by local organizations, such as the Beltzhoover Consensus Group, the Hilltop Housing Initiative, and the Urban Redevelopment Authority. They hope to reestablish the business districts, maintain current homeowners and create new homeowners by rehabbing current vacant homes. The Beltzhoover School, 60,000 sq ft, was recently purchased by the BCG and will be renovated in the next several years."

[https://en.wikipedia.org/wiki/Beltzhoover_\(Pittsburgh\)](https://en.wikipedia.org/wiki/Beltzhoover_(Pittsburgh))

The land area is 0.421 square miles and the 2021 population was approximately 4,000.

<https://www.city-data.com/neighborhood/Beltzhoover-Pittsburgh-PA.html>

The McKinley Environmental Center will provide a variety of educational activities as well as a place for informal learning. It will be open to the public when it is staffed on weekdays and will also be available for evening classes and other staffed events as scheduled. The design of the surrounding site must be an integral part of the life of the Center where projects, classes, and environmental tours are held throughout the year.



Title: Beltzhoover. Plate 13 | G.M. Hopkins & Co. | 1905



Frick Environmental Center, Bohlin Cywinski Jackson, Pgh, PA



Jones Beach Energy & Nature Center, nArchitects, Wantagh, NY

Team Structure

Assuming eleven students, we will divide into two four-person teams and one three-person team. The suggested team responsibilities are one person each as project manager for structure, enclosure, MEP and documentation. The project managers are ultimately responsible making team assignments and producing the deliverables.

Field Trips

- _Frick Environmental Center Pittsburgh, PA
- _McKinley Park, Pittsburgh PA

Optional field trips per class decision

- _Tom Ridge Environmental Center (TREC) & Erie Visitor Center, Presque Isle, PA
- _Adam Joseph Lewis Center for Environmental Studies, Oberlin College, Oberlin, OH



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PROGRAM

We have the opportunity this semester to work together with the leadership, educators and facilities staff of the Pittsburgh Parks Conservancy (PPC) in Pittsburgh to explore concepts for the design of a next generation, ~15,000 net sf Neighborhood Environmental Learning Center (NELC) in Upper McKinley Park in Beltzhoover. A fundamental objective of a NELC is to teach ecological literacy to people of all ages. To this end, all users must be provided the opportunity to actively engage in the operation of the building - from passive strategies to active strategies to measuring and verification of performance. The flagship Environmental Learning Center of their system is the Frick Environmental Center designed by Bohlin Cywinski Jackson under the leadership of SoA alumna, Patricia Culley.

With your work this semester, you will demonstrate that the development of a comprehensive architecture proposal for the PPC will help to fulfill their vision and contribute to improving social equity.

LEARNING OUTCOMES

The following criteria will be used to evaluate student work in this studio:

- _Aesthetics: The degree to which the proposed building responds to formal issues as articulated in this and prior design studios.
- _Experience: The degree to which the design uses a thoughtful narrative and carefully articulated spaces to create meaningful experiences for the user.
- _Structure, Enclosure & Materials: The degree to which the set of selected building materials, components and systems and their proposed implementation are appropriate to the intended occupancy, articulate the desired architectural order, and satisfy the physical design requirements.
- _Environment: The degree to which the design integrates passive and active strategies to achieve measurable & verifiable performance.
- _Constructability: The degree to which the proposed building is informed and developed in response to an understanding of the processes of construction.
- _Presentation: The clarity, craft and completeness of the presentation(s).

Upon successful completion of this studio, you should be able to accomplish the following learning objectives:

- _translate a program into a building design that responds to user requirements and develop criteria for evaluating multiple design alternatives
- _demonstrate the form making implications of structural systems
- _demonstrate the energetic implications of materials selection, enclosure systems, MEP systems and building form
- _ability to determine the best way to test and measure performance of systems
- _draw technical documentation for the project using the conventions of architectural representation