

CMU arch 48.205 - 2nd year architecture studio - Room MM320

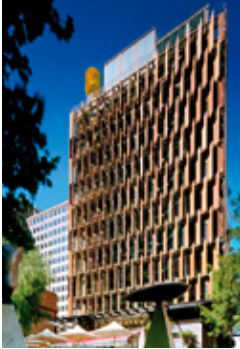
Instructor: Tom Price

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Hours: M.W.F. 1:30-4:30 & by appointment

project 4 - studio paradigm

8 weeks



Southside Library Research Center & Cafe for a Sustainable Future

Objective

Buildings and thus architecture consume 50% of the world's natural resources, 40% of its energy, and 16% of its water. In addition they contribute 17.5% of CO₂ emissions and 27% of total greenhouse gases. As architects and designers it is our responsibility to reduce the impact our work has on the environment. This [small] Research Center & Cafe will serve as a catalyst for exploring sustainable design practices and communicating green design to the Southside community and the city of Pittsburgh.

Approach

Green building is not simply a process of reducing environmental impact. It is **rethinking the relationship between humans and nature**. It is a holistic approach that incorporates environmental concerns into the design process from the start.

Students are tasked to design a series of spaces and places that respond to specific environmental and SITE conditions, and celebrate the benefits and attributes that GENERAL principals of sustainability can contribute to architecture. Every design decision will address the intimate relationship between humans and nature. **Material and assembly choices will be critical to the success of the project** and must embrace sustainable ideas in both a beautiful and functional way. The architecture should engage the existing industrial steel shed, the surrounding context, and all who use the center to explore, experiment, and learn from ideas for creating a sustainable world.

Program

Storage space - for books/data related to sustainability and green building products/artifacts.

Research space(s) - this can be a single space or several spaces that are used to explore and communicate specific ideas related to daylighting/solar control, water conservation/ reclamation/reuse, heating and cooling, subterranean farms, etc.

Public Interface space(s) - The Cafe will serve as the main public interface space and must connect to and 'inhabit' the sidewalk. It will be an incubator for encouraging and supporting conversations that envision a future where sustainable practices are part of our daily lives.

Support spaces - must not be an after thought in the design. They are equally important in communicating and embracing sustainable design and must be articulated with the same enthusiasm and thoughtfulness given to the primary spaces.

All spaces must be configured to maximize the experience of absorbing and enjoying green design and the unique relationship it fosters between occupants, nature, and the existing steel shed. Each space will support and depend on each other as well as the existing structure and thus must be closely connected and articulated. The end result should be a cohesive architecture that respects the past, embraces the future, and gets people involved with and excited about sustainability and its impact on the future.

