STEPHEN R. KELLERT BIOPHILIC DESIGN AWARD

EXHIBIT STAGING CENTER

Originally constructed as a flat, windowless, cinderblock warehouse, Phipps Conservatory and partners have adapted a former public works building on its lower site into an Exhibit Staging Center that will enhance the health and wellness of staff members who use it. Exploring the Exhibit Staging Center (ESC) today, visitors see a beautiful building at the cutting edge of sustainability and human and environmental health. For decades, though, the facility sat largely unused adjacent to an otherwise lush and vibrant campus. Where others might have torn the building down, Phipps saw an exciting challenge—with thousands of old building stock in Pittsburgh and other cities around the world, if we could transform this old cinderblock building into one of the greenest buildings in the world, it would prove that any building can become a green building, and become a showcase where the garden's 500,000+ annual guests can learn about high performance buildings and understand that they are beautiful, healthy and comfortable places to live, learn, work and play.

The ESC showcases the latest in green building technology, transforming an eyesore on a former brownfield into an environment dedicated to the well-being of its occupants, visitors and the ecology of its site. This dynamic adaptation is designed to achieve three of the world's most rigorous green building standards: Living Building Challenge, LEED® Platinum and WELL Platinum. The building is also one of the first to achieve the Well Health-Safety Rating, a new standard for occupant safety created in response to the COVID-19 pandemic. The ESC is net-positive energy, with an ultra-efficient lighting system that runs on direct current (DC) electricity produced by rooftop solar panels. All rainwater that falls on the ESC is managed on site, and all sanitary water is cleaned through a constructed wetland system and reused.

Exhibit, maintenance and grounds staff, a group whose well-being is often overlooked, are the primary occupants of the ESC, which is designed to ensure that the health and well-being of all staff members is a top priority. Additional features available to all Phipps staff that encourage physical and mental well-being include a yoga studio, fitness center and meditation room.

Once a paved-over public works yard and renovated as the first SITES Platinum certified site, the ESC which straddles and includes this site now consists of lush gardens, beautiful buildings, and a rain-fed lagoon with a thriving aquatic ecosystem.

The restoration did not simply minimize negative environmental construction impacts, but was regenerative, actually improving the health of the ecosystems in which it is nested while providing a healthy space for employees and guests. The ESC proves that the greenest buildings can be ones that already exist. With the right priorities, even the most unhealthy spaces can become ones that are good for the people who inhabit them and beneficial to the environment.







ENVIRONMENTAL FEATURES

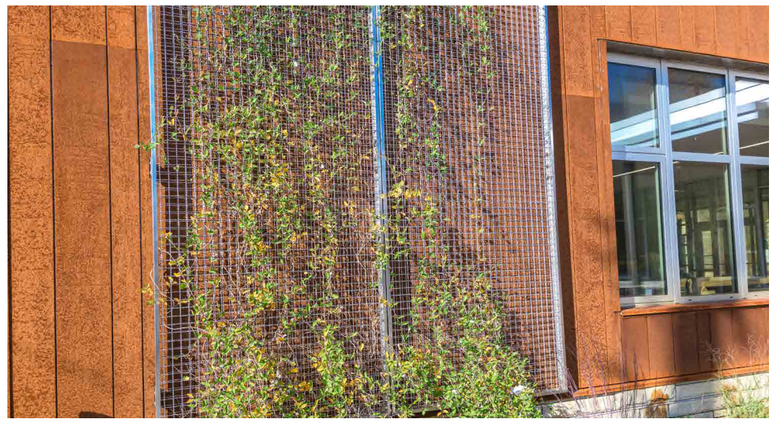
views and vistas

Prior to the opening of the ESC, the facilities staff work area was a windowless section in the basement of the Tropical Forest. It had no windows and poor ventilation. Now, their workshop is dappled in sunlight, boasts operable windows, adheres to exacting indoor air quality standards and is made of non-toxic materials.



façade greening

Screens for climbing vegetation are found in a handful of locations on the exterior. Native vines are beginning to climb the structures and will eventually cover a portion of the façade, blurring the distinction between the built space and the natural world.



water

A reflecting pool was added and incorporated into an adjacent, existing lagoon. These rain-fed water features not only manage stormwater, but are home to a thriving aquatic ecosystem with fish, crayfish and frogs, that are a focal point for many guests. Nearby, rain chain with a floral motif hangs from the side of the ESC.



NATURAL PATTERNS AND PROCESSES

age, change, patina of time

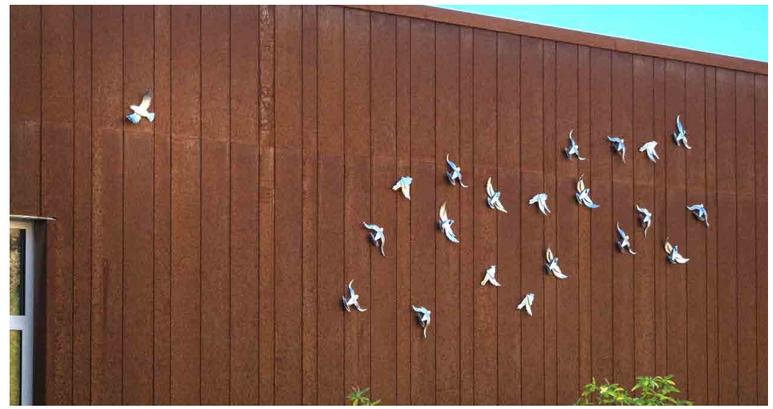
The architecture of the ESC does not ignore the site's industrial past but incorporates it, understanding that it is part of what defines its sense of place. The building exterior is clad in core-ten steel. While a nod to the former identity of Pittsburgh as the steel capital of the world, it is also a product that will naturally rust to reveal weathering and the patina of time. The variable widths of cladding also suggest a native deciduous forest, blurring the built and the natural environments.



NATURAL SHAPES AND FORMS

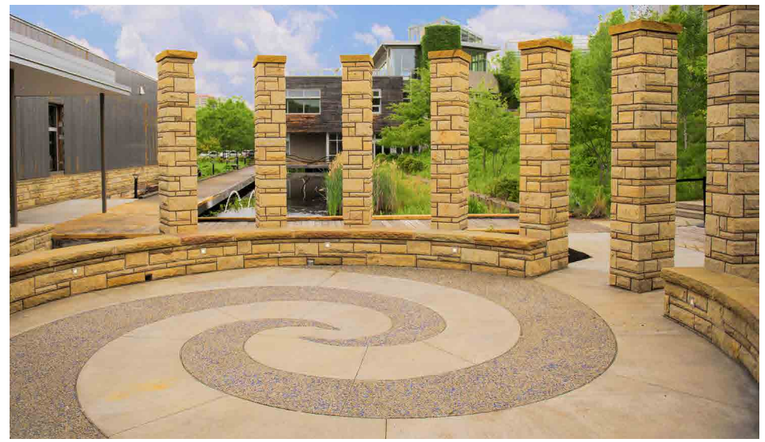
animal motif

Inspired by Phipps' effort to soar to new heights, a series of stainless steel cedar waxwing sculptures grace the exterior. The sculpture's leader Waxwing is posed flying away from the flock to symbolize that Phipps' does not follow the flock or the conventional way of doing things and is always seeking out the best way possible to a future that achieves the highest standards for human and environmental health.



shells and spirals
tree and columnar supports

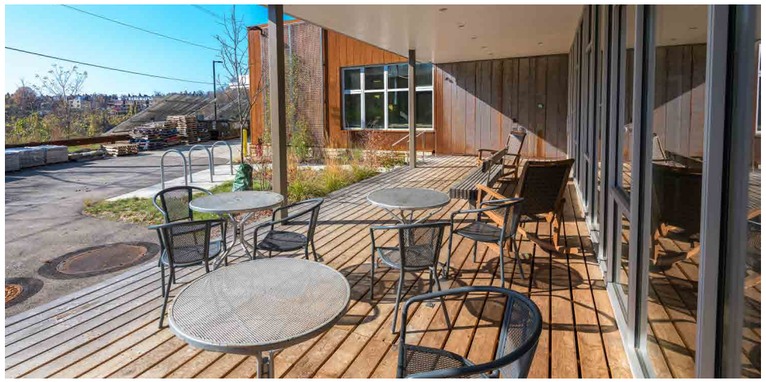
The ESC features a yoga court, an outdoor semi-sheltered space that offers vistas of the site landscaping. A series of sandstone columns are evocative of a forest. Yoga Court features intricate inlaid in the shape of one of nature's hallmark forms, the spiral. Recycled glass in fractal patterns catch the sun giving the spiral an iridescent sparkle.



EVOLVED HUMAN-NATURE RELATIONSHIPS

prospect and refuge

A covered deck on the south-side of the ESC offers staff the chance to meet, eat and relax. Open on two sides, it affords views of neighboring Schenley Park, the city's second-largest green space, but is sufficiently protected so can be used even inclement weather. Similarly, the Nana wall separating the interior Yoga Studio and the exterior Yoga Court can completely open when desired, merging the spaces into a large indoor-outdoor area with views of the landscape.



security and protection

The open floor plan of the ESC affords abundant spaciousness and natural daylight. This openness is all the more effective because it is complemented by smaller, protected areas that offer comfortable and nurturing settings. The meditation room, which features natural clay walls and cork floors, offers the delight of a secreted space.



order and complexity

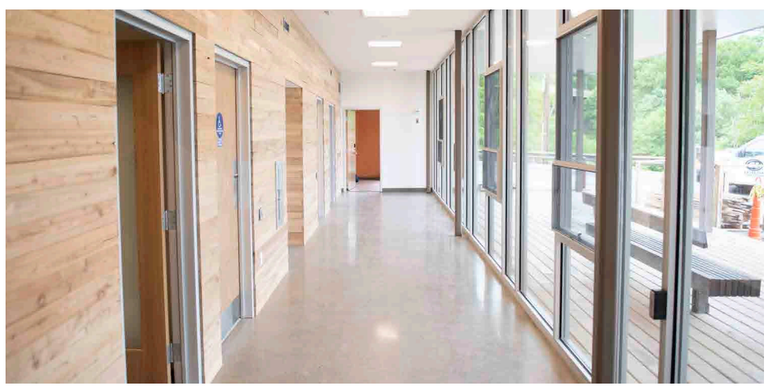
A 4-foot reclaimed wood sculpture by a local artist adorns the wall of the wall of the Yoga Studio. The sanded and stained white oak wood scraps salvaged from shelves of the local library are meticulously arranged to mimic skylines.



LIGHT AND SPACE

natural light
filtered and diffused light

Prior to the renovation, the building that became the ESC was windowless. It now features numerous windows and glazing. Natural daylight permeates throughout. Most of the windows are operable, and a green light/red light indicator system tied into the building automation system and outdoor weather station inform staff when outside conditions are conducive appropriate for natural ventilation. Adjustable solar tubes bring filtered and diffused daylight into spaces farther removed from windows.



PLACE-BASED RELATIONSHIPS

ecologic connection to place
historic connection to place

Guests moving through the will note imprints of horseshoes in the concrete, a tribute to the history of the site, which housed riding stables over a century ago. There are also leaves stamped into the interior concrete floor.



indigenous materials

The ESC features several materials that are indigenous, beautiful and inspirational. Locally-quarried sandstone, a main component of regional bedrock, is featured throughout the hardscape. Black locust lumber, a native species with a very hard wood and no need for pressure treatment, was sourced to use on the deck and an interior wall.

