



Overview

People are attracted to all that is alive and vital, a phenomena dubbed “biophilia”—literally meaning nature-loving—by the biologist E.O. Wilson. Building designs that foster positive connections between people and nature enhance physical and mental well being. Typically, these buildings include protected spaces that offer views, a variety of organic forms and visual patterns and natural elements such as plants and water. These elements improve cognitive functioning, hasten healing, lower blood pressure and lead to greater productivity.

“Building designs that connect with nature incorporate architecture, biology, conservation ecology, psychology, land development, medicine, neuroscience and urban planning.”

— Hixon Center for Urban Ecology, Yale University

Benefits

- Improves productivity and general well-being
- Decreases recovery time for medical and mental health treatment
- Promotes well-being and social connectivity

Quick Fact

Contact with nature enhances cognitive and affective learning functions for higher order tasks requiring concentration and memory. Exposure to light, natural substances and patterns reduces stress.



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LEED®-CI v2.0: Commercial Interiors

By implementing various design strategies that connect with nature, your project may be eligible for the following:

Indoor Environmental Quality

EQ Credits 8.1–8.3: Daylight and Views

Materials & Resources

MR Credits 4.1–4.2: Recycled Content

MR Credits 5.1–5.2: Regional Materials

CASE STUDY

Herman Miller

The Herman Miller GreenHouse connects workers with nature in the design of its manufacturing facility in Holland, Michigan. The company incorporated indoor plants, expansive views to the outdoor prairie landscape, and daylighting throughout the building. In a gesture to exploration and playful surprise, wooden animals are placed throughout the building which lends uniqueness to the physical space.

The company's Design Yard, also in Holland, Michigan, uses extensive external views and refuge elements in the facility. Moving water and plantings are used at an indoor water wall and in an outdoor garden to create peaceful settings. One of Herman Miller's conference rooms incorporates a grass table. Each Resolve® workstation provides an overhead "canopy" and moveable screens which offers a feeling of safety and privacy while still allowing views out to connect with colleagues in the workplace. These canopies and other vertical surfaces can be covered with fabrics mimicking nature, such as an image of clouds and sky.



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Quick Fact

Studies have shown that interior plants clean the air of harmful contaminants, including volatile organic compounds and carbon dioxide.

Checklist

Environmental Features

- Design for open views to windows.
- Include natural ventilation and daylight wherever feasible.
- Provide abundant landscaping, such as trees, plants and water at building entries and around the building perimeter.
- Include plantings and water features inside the building.

Natural Patterns

- Select artwork and decorations which include trees, grasses, water, flowers and rocks.
- Select natural building materials such as wood and stone.
- Choose naturalistic ornamentation such as flowers, animals and organic patterns in floor and wall coverings.

Natural Shapes and Forms

- Incorporate fractal-patterned fabrics, wall coverings and artwork to create comfort and productivity.
- Provide sensory variability in sounds, light, color, temperature and air movement.
- Introduce patterned complexity and organic forms.
- Combine color splashes and unique spaces and elements.
- Integrate shiny or glimmering surfaces that symbolize water.

Light and Spatial Variability

- Incorporate daylighting, as sunlight varies in intensity and color throughout the day, giving cues to nature and the outdoors.
- Specify a variety of light fixtures that allow users to change the color or intensity of light to mimic sunlight.
- Provide a visually stimulating community space for informal gathering.
- Create a quiet, calm area in which to rest.
- Establish areas of enclosure and sensory retreat using overhead canopies and vertical screening.
- Include distant views and view corridors, irregular clustering of elements and curvilinear surfaces that gradually open to views.

Resources

www.rmi.org Find "An Introduction to Biophilia and the Built Environment."

www.aia.org Search for "biophilia in practice."

arts.envirolink.org/interviews_and_conversations Find the E.O. Wilson interview on biophilia.