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A CLOSER LOOK AT SUSTAINABILITY-FOCUSED BIOPHILIC DESIGN

Have you heard this multisyllabic buzz-phrase and wondered what it was all about? In the facilities sector, you'll be hearing the words for years to come, so let's unpack them and take a closer look at what sustainability-focused biophilic design is and what it will mean for the facilities industry. "Biophilia" means "love of living things," and biophilic design feeds that love by bringing nature inside buildings.

The case for a biophilic design approach that centers on sustainability is strong now and gaining momentum.

The second important precept is that sustainability has to be built into biophilic design from the start so it can contribute to the facility's overall sustainability goals. In the absence of a sustainability focus, biophilic design is a form of "greenwashing," i.e., misleading stakeholders to present the building as more environmentally friendly than it is, which can have a negative impact.

Sustainability-focused biophilic design can help you avoid that pitfall. And no matter what type of facility you run, the approach can also help you create an atmosphere where people feel more comfortable, focused, and productive. That's a worthy goal on a human level, and it can be a powerful commercial advantage in a volatile marketplace too.

BIOPHILIC DESIGN BASIS

One of the guiding principles in biophilic design is that if people are going to be in a building for hours, ideally, they should be able to see sky, trees, grass, light, and overall have some connection to the outside world. They should be able to tell if it's raining or not. In best-case scenarios, biophilic design brings nature inside and provides outdoor access so people can go outside to have lunch or get some fresh air.

Biophilic design brings nature indoors by incorporating natural motifs, including living interior plants when possible. Designers may place artwork featuring natural scenes and use natural textiles like cotton. Wood or cork flooring is another popular biophilic choice. It inspires a comfortable feeling that hard, modernistic black marble, or sealed concrete can't match. It's comforting on a subconscious level.

Circadian rhythm lighting is another biophilic design element that is trending upward. Modern LED lighting technology makes it simple to adjust the color temperature so that inside light syncs with the natural lighting outdoors as the sun rises and sets. Lighting technology like this can help workers avoid disruptive sleep patterns, which keeps employees sharper on the job.

Acoustics are also a critical component of biophilic design. Background chatter in an open office can be distracting. Designers can counter that by creating quiet areas. In some buildings, facility managers pipe in background sounds to mask distracting noise, and natural sounds like trees rustling can offer some serenity.

Student Housing West,
UCSC, a net-zero project.



HOW BIOPHILIC DESIGN INCREASES COMFORT, FOCUS, AND PRODUCTIVITY

Biophilic design is beneficial for building occupants and building management. A study found that people who work in buildings with natural lighting slept an average of 37 minutes longer than those who work in artificial lighting. The research also showed that natural lighting boosts cognition; office workers exposed to natural light scored 42% higher on tests than counterparts.

Exposure to nature can also improve healing, lower aggression, and lift moods, which are valuable benefits in any setting, including schools, hospitals, conference centers, office buildings, transit stations, or industrial sites. Access to nature in the form of natural materials and lighting, indoor plants to clean the air, etc., can help your building create a healthier and more productive workforce or customer base, which is good for business.

The effect of some biophilic design elements may seem counterintuitive. For example, if students have a window in a classroom, won't they get distracted by the view? But experience shows that's not the case — the absence of stimulation itself can cause distraction. Better focus is just one of the ways investing in sustainability-focused biophilic design delivers returns.

THE BUSINESS CASE FOR SUSTAINABILITY-FOCUSED BIOPHILIC DESIGN

The business case for a biophilic design approach that centers on sustainability is strong now and gaining momentum worldwide. A comprehensive survey conducted last year showed that one in four consumers plan to consider social issues like sustainability in their purchasing decisions. And there is growing interest in sustainable building across industries due to associated opportunities. Those include the opportunity to improve air quality and lower

maintenance costs in addition to creating a more serene environment for building inhabitants. Examples of biophilic design in action include retail spaces that incorporate nature to encourage shoppers to linger (and spend) and busy airports where living walls of plants and other natural elements provide a much-needed sense of calm.

If you're interested in exploring a sustainability-focused biophilic design project, look for a partner with a consultative approach. A firm with an integrated practice where architects, engineers, designers, sustainability experts, landscape architects, and acoustics professionals work together can create a cohesive plan that addresses all elements, including lighting, air quality, filtration, and views.

An integrated design approach streamlines projects by bringing the relevant expertise to the table early. This keeps the effort on track by making sure all disciplines are represented and that people aren't working at cross-purposes in silos. With a multidisciplinary plan at the front end, the team is more likely to avoid delays when work gets underway.

Sustainability-focused biophilic design has been generating buzz in the facility management space. By understanding the benefits for building inhabitants and the advantages this strategy provides to organizations of all types, you'll be better prepared to make decisions about future building projects.



Daniel Jaconetti AIA, LEED AP is the National Sustainability Design Leader with HED. He can be reached at djaconetti@hed.design.