

Biophilic Design

Introduction

Biophilic design is the emphasis on maintaining a connection with nature in built environments with the intent to achieve benefits that span from merely aesthetic into the realm of restorative. Research on biophilic design has increased over the 20th century within healthcare and office settings; evidence of its effectiveness includes reductions in stress, lower systolic and diastolic blood pressure, and enhanced mental well-being.^{1, 2, 3}

Healthcare

Studies have proven the way biophilic design benefits patient outcomes. Biophilic design can reduce stress via enhanced feelings of calm, which are associated with measurable decreases in blood pressure and heart rate. When patient rooms have views of nature, postoperative stays are generally shorter, less pain medication is dispensed, and healing accelerates.⁵ Windowless ICU settings, on the other hand, double the chance of hallucinations in patients.⁵

Biophilic design is also beneficial for managing staff stress levels.⁴ Examples of this design style include break areas with direct access to the outdoors and patient care rooms with wall of glass with natural views.⁴ Thoughtfully designed connections with the natural environment can increase staff job satisfaction, reduce stress, and improve patient care.⁵



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Healing Gardens

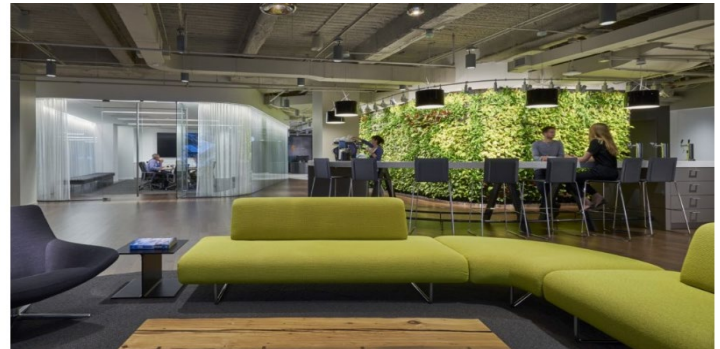
Gardens have been traditionally used worldwide to assist in healing since the Middle Ages.⁵ Studies have shown that as little as 5 to 10 minutes spent in nature or with a view of nature can reduce stress.⁵

Gardens can be designed for specific patient trauma groups. For instance, cancer or burn patients may prefer small amounts of direct sunlight.⁵ Patients using medications with photosensitizers may prefer trees and shaded areas. Developing gardens for their

specific climates is also ideal; in humid and hot climates, shading is essential, or an interior garden may be a great alternative to an outdoor one.⁵

Office Spaces

The cost of biophilic design is always a concern, but overall worker wellbeing appears to increase based on a thoughtfully designed office environment. When they are implemented, biophilic environments lead to increased productivity, lower employee turnover, reduced employee absenteeism, higher retention, and lower error rates.⁶ Design strategies can include the use of earth tone colors, organic shapes, and material choices such as wood and woolen fabrics to help occupants indirectly experience nature if a direct experience is not possible.¹



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Conclusion

For most of us, the greater portions of our lives are spent working indoors, so designers and planning professionals can enhance general wellbeing by incorporating biophilic design. This is particularly true of healthcare settings, where stress levels are a concern for both the patients, staff and visitors who are collaboratively needed for the patient's recovery.

References

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