Biophilic Design: Definitions

Erich Fromm

1960's

In his exploration of the "essence of man." He saw that humans' awareness of their mortality separates them from nature, causing deep anxiety and conflict. Humans try to overcome this anxiety by either a regressive path of narcissism, incestuous symbiosis, violence, and necrophilia or a progressive path of altruism, freedom, and biophilia. "Biophilia" was defined as a love of life and living processes.

E.O Wilson

1984

Wilson defined biophilia as "the innate tendency to focus on life and lifelike processes." He utilized the term "biophilia" to describe his deep feelings of connection to nature during a period of exploration and immersion in the natural world. Wilson's special insight was that this biophilic propensity developed as part of evolutionary survival, so it encompasses certain characteristics that remain with humans even in modern cities.

Stephen Kellert

Biophilic Design, 2008

Building Scale

Timothy Beatley

Biophilic Cities, 2011

City Scale

Kellert, Heerwagan, Mador

Biophilic Design New York: John Wiley & Sons, 2008

- 1. Environmental Features
- 2. Natural Shapes and Forms
- 3. Natural Patterns and Processes
- 4. Light and Space
- 5. Place-Based Relationships
- 6. Evolved Human-Nature Relationships

TERRAPIN

14 Patterns of Biophilic Design Terrapin Bright Green, 2014

Nature in the Space Patterns

- 1. Visual Connection with Nature
- 2. Non-Visual Connection with Nature
- 3. Non-Rhythmic Sensory Stimuli
- 4. Thermal & Airflow Variability
- 5. Presence of Water
- 6. Dynamic & Diffuse Light
- 7. Connection with Natural Systems

Natural Analogues Patterns

- 8. Biomorphic Forms & Patterns
- 9. Material Connection with Nature
- 10. Complexity & Order

Nature of the Space Patterns

- 11. Prospect
- 12. Refuge
- 13. Mystery
- 14. Risk/Peril

STEPHEN R. KELLERT

Nature by Design: The Practice of Biophilic Design 2018

I. Direct Experience of Nature

- 1. Light 2. Air
- 3. Water
- 4. Plants
- 5. Animals
- 6. Landscapes
- 7. Weather
- 8. Views
- 9. Fire

II. Indirect Experience of Nature

- 10. Images
- 11. Materials
- 12. Texture
- 13. Color
- 14. Shapes and forms
- 15. Information richness
- 16. Change, age, and the patina of time
- 17. Natural geometries
- 18. Simulated natural light and air
- 19. Biomimicry

III. Experience of Space and Place

- 20. Prospect and refuge
- 21. Organized complexity
- 22. Mobility
- 23. Transitional spaces
- 24. Place
- 25. Integrating parts to create wholes

Wilderness Based Checklist for Design and Construction

Malcolm Wells

- 1. Air
- 2.Water
- 3.Rainwater
- 4.Food
- 5. Soil 6. Waste
- 7. Wildlife habitat
- 8. Energy
- 9. Transportation
- 10. Local weather
- 11. Natural Light
- 12. Heating 13. Cooling
- 13. COOIII
- 14. Maintenance 15. Circulation
- 16. Comfort
- 17. Indoor Air
- 18. Material
- 19. Recycle
- 20. Symbolic nature of the building
- 21. Neighborhood
- 22. Aesthetics judgment

https://link-springer-com.ezp2.lib.umn.edu/content/pdf/10.5822%2F978-1-61091-686-8.pdf

Kellert R. Stephen, Judith H. Heerwagen, Martin L. Mador. Biophilic Design. New York: John Wiley & Sons, Inc. 2008.

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