

## Mother Knows Best: Home Design Inspired by Nature

By Deborah Coburn

The perfected systems of the natural world support life, nourish the soul and reuse everything in perpetual cycles. By mimicking nature in home design, we can create healthy, eco-friendly environments that reduce waste, soothe and energize.

Biomimicry (from *bios*, meaning "life," and *mimesis*, "to imitate") is a design principle that seeks sustainable solutions to human problems by emulating nature's time-tested patterns and strategies. Janine Benyus studied the concept in her book, *Biomimicry: Innovation Inspired by Nature* (William Morrow, 1997). Today, industrial engineers look at mussels that cling to ocean-pounded rocks to learn about water-resistant, nontoxic bonding agents; inventors base designs for fans and pumps on the spiral shape of the nautilus shell and the vortex of a tornado. Even an exterior paint, Lotusan, is designed to simulate the lotus flower's water-shedding surface.

Biomimicry's core idea is that nature, imaginative by necessity, has solved many of the problems we grapple with in modern design. Organizing our homes to reflect nature connects us with the wisdom of 3.8 billion years of what works. Biomimicry in interior design borrows not just nature's look but the solutions embedded in its laws. Follow nature's wisdom and try these seven design principles to make your home more vibrant and beautiful.

### "Invest wisely in beauty; it will serve you all the days of your life."

—Frank Lloyd Wright

**Follow the light.** Nature gathers the sun's energy efficiently, using only what it needs to support life. Through photosynthesis, plants convert light energy and carbon dioxide into oxygen, which can be used by other forms of life.

People can use radiant energy in their homes through passive-solar design. South-facing windows warm a room in winter by letting in the sun's rays. In summer, you can position window shades to shut out hot sun; essentially, you're mimicking the way leaves and flowers follow the sun's movement.

If you install solar panels at your house, the life-giving sun will provide your home with electricity or hot water. You also can save energy by relying on natural light whenever possible. If rooms are dim, consider installing skylights or daylighting tubes. Recent studies show that people think and perform better—and stay healthier—when they're in sync with natural light cycles.

**Make connections.** In nature, diverse organisms form webs of interconnections and cooperative relationships. Ecological stability is a function of this complexity. Nature rewards cooperation with survival; species that endure are in harmony with their environment and with each other.

When this principle is in action in your home space, furnishings depend on one another for visual impact. A room comes alive with a mixture of patterns, textures, shapes, sizes and colors—all working together to create visual order. Keeping the room's function and focal point in mind, you should distribute the furniture in a way that balances the room.

Next, hang art and arrange accessories to set up connections and correct imbalances. For instance, balance an off-center picture with a lamp or an object on a table. When framing and hanging art, try a variety of sizes, shapes, styles and frames in different finishes. When placing accessories, select a theme or color, then experiment with groupings, materials, textures, size and scale until you arrive at an arrangement you like.

## "Come forth into the light of things. Let Nature be your teacher."

—William Wordsworth

**Combine form and function.** Successful organisms have evolved to make the most of their environment, adapting their shapes to their ecosystem. A giraffe has a long neck to eat treetop leaves. An elephant has a trunk for feeding, drinking and showering.

When you choose home furnishings, you probably already select items based on their shape and function. Small chairs with upright backs are useful for dining, whereas upholstered lounge chairs say "relax." Keep function in mind when selecting every piece of furniture. Does a large coffee table with drawers for storage make sense for you, or do you need something that's easy to move? An ottoman might serve many functions: a place to rest feet, additional seating and a spot for a tray so a coffee table isn't necessary.

**Create life-affirming beauty.** Nature knows the value of beauty. Flowers have developed showy petals, bright colors, tantalizing scents and sweet nectar to attract bees, which are necessary for pollination.

In interior design, use objects that reflect your passions. Love music? Frame old sheet music or leave instruments out for viewing and using. Love family? Hang photographs and memorabilia. Love nature? Bring treasures indoors as the seasons change to remind you of natural cycles. Put sand and seashells in pretty glass containers in summer; fill vases with autumn leaves in fall.

**Optimize your resources.** Find inspiration in the resilience of natural things. Perennial plants put down strong roots that see them through the winter so they can return summer after summer. Longevity is the reward for being efficient and learning to do more with less.

Sustainable interior design is also about doing more with less. "Eighty-five percent of manufactured items quickly become waste," Benyus writes in *Biomimicry*. Consider longevity when buying furniture. Choosing sturdy, repairable pieces optimizes resources and makes your investments last.

Nature also uses materials wisely, and sometimes one structure may be recycled two or three times. A shell harbors the animal that made it, then might be reclaimed by another animal (such as a hermit crab). Ultimately the shell becomes sand.

In interior design, make sure everything you put in a room will have a long life and can be reused or donated when you are finished with it.

## "When I judge art, I take my painting and put it next to a God-made object like a tree or a flower. If it clashes, it is not art."

—Paul Cézanne

**Follow the cycle of life.** The grand cycle of death and renewal is a wonderful teacher. Materials, organisms and creatures live out their lives and are then reabsorbed for another use, thereby perpetuating life. Nature is a closed system in which there's no waste: One species' waste is another's food.

By imitating these cycles, we can overcome linear thinking—and the linear path of material goods from cradle to grave, from manufacture to landfill. In your home, give objects a second life: An old birdcage can become the base of a side table, a fireplace surround can become a headboard; a lace tablecloth can become a window curtain.

**Think locally.** In nature, organisms adapt to their environment and develop a place in their unique ecosystems: Think cacti in the desert and broadleaf plants in a riparian area. Picture shorebirds with their elongated legs and narrow beaks—perfect for feeding at the tide line.

When designing your home, allow products and styles to stay in sync with their surroundings. Use local materials, designs and craftspeople to save shipping costs, connect you with your bioregion and sustain your local economy. Look to the colors of the region for inspiration. For example, when choosing an exterior color palette, match the paint to the soil, plants and landscape; use nature's local know-how to make the buildings part of the place. --*NH*

**"Creative thinking may mean simply the realization that there's no particular virtue in doing things the way they have always been done."**

—Rudolf Flesch

### ***For the beauty of the earth***

Because of nature's beauty, we search out special places for hikes, vacations and the rejuvenation of our souls. The seashore in summer, a meadow in spring, the woods in autumn, the mountains in winter: These landscapes sustain and inspire us. Beauty is not ecologically irrelevant: We work to save what we love.