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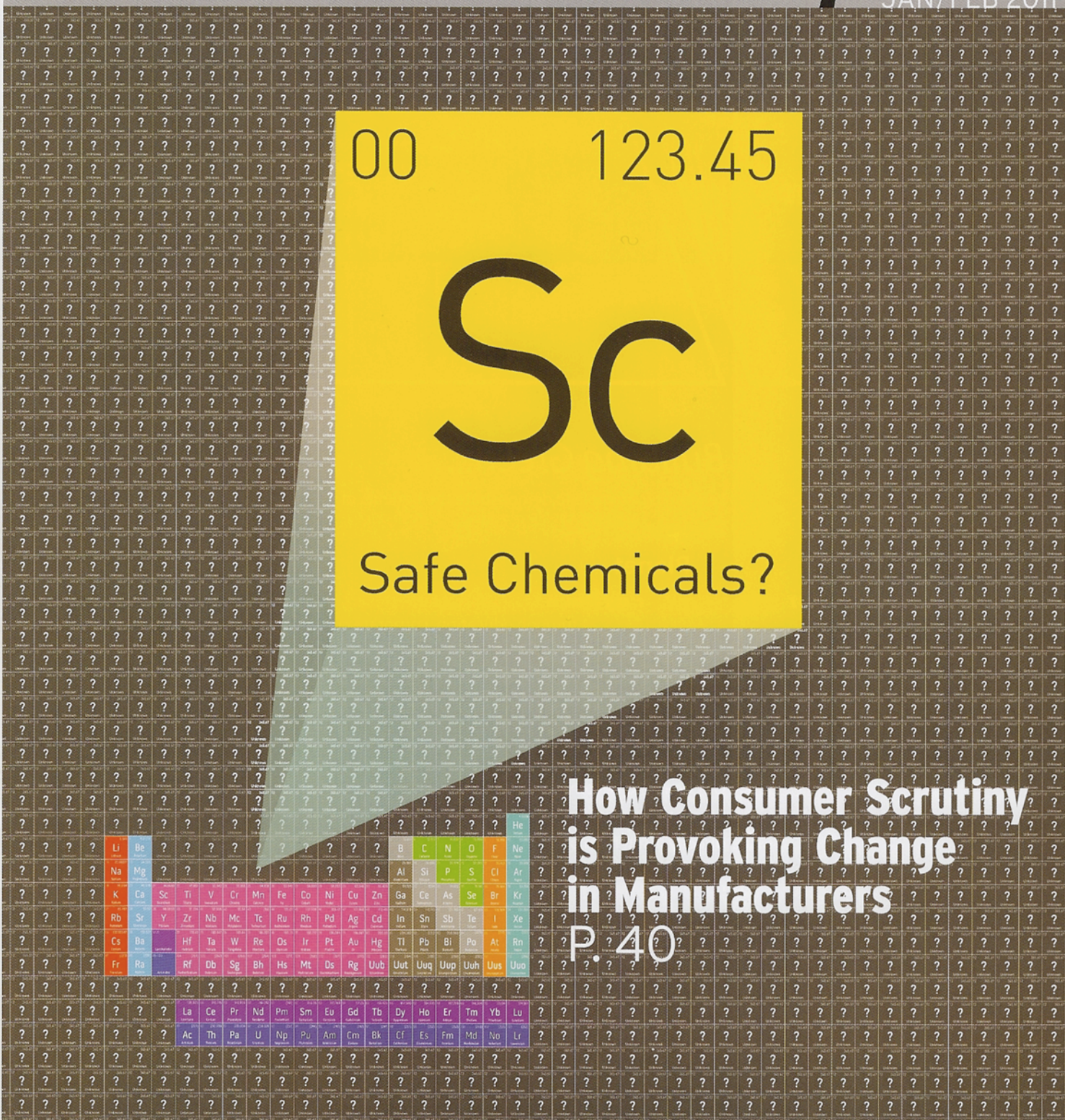
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ON THE RECORD



Healthy Balance

Helena van Vliet on 'ordered complexity' and why the next revolution will be one of biophilic design

BY LAURA WILLIAMS-TRACY

HELENA VAN VLIET is ready for the next evolution of green architecture. When the industry has fully digested the ideas of energy conservation and sustainable materials, van Vliet believes it will move toward biophilic design—the idea that providing a sensory connection to nature through the built environment actually makes inhabitants healthier.

Incorporating nature has been a common theme among van Vliet's projects throughout the 20 years she's had her practice, Helena van Vliet Architect, LLC. The Kimberton, Pennsylvania-based firm focuses on high-end residential work in Pennsylvania and New Jersey and offers services in land planning, architecture, and interior design. "People who have a sensory connection to natural vistas or light recover faster from illness, are more alert and productive, need less pain medication, and are generally

less stressed and happier," van Vliet says. "Biophilic design goes beyond green building because it doesn't just concern itself with energy efficiency or nontoxic materials but also considers the physiological and psychological effects of the built environment."

Biophilic design is a term coined by Edward O. Wilson, a Harvard biologist, who found that people have an innate affiliation with the natural world—its forms, patterns, and processes. His studies originated from studying the healthcare field, but van Vliet says the lessons apply to homes or any structures where people spend their time. Building occupants need to be in touch with the changing daylight levels; experience moving water, stillness, and quiet; and connect to weather patterns, seasonal changes, and local topography to be in better balance with nature and their bodies' circadian rhythms.

"Once you understand how disturbances in the circadian rhythm can lead to elevated stress levels," she says, "you begin to see the connection between that and many physiological and psychological problems of our time, like depression, anxiety, melatonin sensitive cancers, diabetes, and obesity. You begin to see how the built environment can either contribute to illness or have a restorative, regenerative effect."

The architect designed a home in Malvern, Pennsylvania, to take the shape of the natural clearing on the lot. Every part of the longitudinal house was designed to fit around the existing trees and the topography. The adjacent guesthouse has a

curved chimney that resembles a tree growing from the ground; the dramatic angle fits the environment.

Her elegant designs are the result of her commitment to a single concept. "I've done a lot of thinking and reading about what's called 'ordered complexity,' which is something we find in nature and something we as humans seem to be genetically attracted to, as opposed to chaotic complexity." In practice, this complexity can be achieved rather simply. Van Vliet leans toward texture, relief in elevations, and rich materials, giving many of her projects an old-world aesthetic. Yet balancing the use of luxury materials and construction techniques

that support this design goal in an environment where the focus is energy conservation can be a challenge. "The most energy-efficient home is a box, and that is not a biophilic building; bland, angular flatness does not seem to satisfy us as a species," she says. "I strive to have buildings generate their own energy through the use of geothermal or BIPV systems and make use of fuel-cell technology, which will be readily available in the next two years."

Van Vliet grew up in Germany near the Dutch border, in a family of architects that valued beauty. After earning a bachelor's degree in architecture from RWTH in Aachen, Germany, she moved to the United States and earned a master's in architecture from the University of Pennsylvania. She says her clients here are sophisticated and looking for unique solutions. "Every project I do is a one-of-a-kind piece," she says. "There's very little that repeats from one client to another. I try to give expression to their unique voice—not mine."

With each project, van Vliet works to preserve the topography and tree canopy; to situate the home to take advantage of solar position, cooling winds, and natural ventilation; and to build entrances away from snow drifts. Some homes have solar-photovoltaic systems, and most have an inside or outside water feature. "I believe as architects we have a similar obligation, as does the medical community, to create environments that are regenerating and counterbalance the many stresses people have in their lives," she says. "It's not enough to just consider that the temperature is right or the light is right, but we must consider the entire human being within the rhythm of each day." **CBQ**

