The Gecko's Foot Draws Direct Links Between Bio-research And Consumer Interests

A riveting account of the unexpected relationship between nature and scientific design. Study nature, love nature, stay close to nature. It will never fail you. When Frank Lloyd Wright said this, he probably wasn't envisioning self-cleaning surfaces, the photonic crystal, or Velcro. But nature has indeed yielded such inventions for those scientists and engineers who heeded the architect's words. The cutting-edge science of bio-inspiration gives way to architectural and product designs that mimic intricate mechanisms found in nature. In Peter Forbes' engaging book we discover that the spiny fruits of the cocklebur inspired the hook-and-loop fastener known as Velcro; unfolding leaves, insect wings, and space solar panels share similar origami folding patterns; the self-cleaning leaves of the sacred lotus plant have spawned a new industry of self-cleaning surfaces; and cantilever bridges have much in common with bison spines. As we continue to study nature, bio-inspiration will transform our lives and force us to look at the world in a new way.

My Personal Review:
In one of the few books ("Pulse" is another good choice) that focus on bio-inspired processes and products, Forbes explains some interesting applications inspired by lotus, desert beetles, spider silk, and a whole bunch of other examples from Nature. Each chapter focuses on one specific product or theme and hence is fairly independent of the other chapters and can be essentially read in any specific order. The discussion does sometimes may get too technical for a non-science background reader, especially some of the diagrams. However, the discussion in itself is very clear and the reader obtains a good sense of appreciation of the products being envisaged from a particular "inspiration". Excellent information. A must read.