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The New Architecture of the Sun



WITH ASSURED SOLAR ACCESS, WE HAVE BEFORE US THE promise of a new architecture, one that responds to the rhythms of nature. This new architecture of the sun will link us to our own places. It will provide individual choices for comfort. And it will promote the ritual use of space to celebrate our choices.

The basis for this new architecture is the way buildings use energy. Writing on the global impact of increasing energy demands and greenhouse gas emissions, architect Edward Mazria has pointed out that, because most structures are designed to override nature, they presently use 76 percent of all electricity produced in the United States to operate; otherwise, many become uninhabitable—too hot, too cold, no light. Standards and incentives to increase energy efficiency have already been enacted and are unlikely to improve the picture much further. He concludes that achieving further energy efficiency in buildings will require nothing short of a revolution in the design community.¹

A revolution in the way buildings use energy must involve design education. In referring to a basic lack in his own education, professor of urbanism Witold Rybczynski has complained that the subject of *comfort* was mentioned only once during his entire architectural education, and by a mechanical engineer. “He described something called the ‘comfort zone,’ which, as far as I can remember, was a kidney-shaped, cross-hatched area on a graph that showed the relationship between temperature and humidity. Comfort was inside the kidney, discomfort was everywhere else. This, apparently, was all that we needed to know about the subject.”²

Our reliance on mechanical–electrical systems to provide standardized levels of comfort has been linked to Modernism and the celebration of the machine. Yet, even with pronouncements of