towns and cities, and ancient forms of sheltering are being forgotten. Still, even in a mechanized world, all things must finally respond to nature. Long-established traditions offer a valuable model for today.

When most people depended directly on the land and lived close to nature, their modes of sheltering reflected centuries of learning how to live in a place. Dwellings were well adapted, sited, and shaped in response to local conditions of weather and climate. Corresponding patterns of behavior evolved through generations to match the cycles of time. Spring planting was carried out against a backdrop of fresh green leaves and flowering branches; harvest, against deep colors and bright fruit. Each season was separately ordered like an ancient stringed instrument, a kithara or a lyre, with its own unique resonator. Then cycles repeated as each year brought forth the same rhythmic responses. Rituals belonged to a natural world.

We, in the modern world, identify with growth, making new things in new places. Partly this is the consequence of a universal need to rapidly house people moving from rural to urban settings. Partly it is the result of a swelling global economy that rewards ever-expanding markets over constancy, development over a steady state, and novelty over tradition. The modern background of our lives has a strong sense of linearity and progress, an "arrow of time" replacing traditional cycles. Now, our sheltering rituals seldom mirror the rhythms of nature.

Our predilection for growth raises doubts about a sustainable future. Developers do not pay the utility bills for heating and cooling, lighting and ventilating our buildings. Consequently, designers are encouraged to install energy-intensive systems, "machines for living" that override natural variation. Dwellers who do pay the monthly bills are not always aware of the accumulating costs because they pay in countless small amounts over time, not in a

more painful lump sum. Nor do many realize that over one-third of all the energy they consume each year in the United States goes for keeping their buildings comfortable. Over the 50- to 100-year average lifetime of these buildings, the energy price is staggering. In the simplest terms, we "build cheap" and "maintain expensive."

Additionally, and more to the point of this book, we have lost a challenge to our imaginations. Modern buildings automatically reduce natural variation to a narrow range of light, heat, and humidity without our direct involvement. We have gained uniform standards of comfort, but we have lost the sense of harmony that derives from experiencing the complex rhythms of nature. When we flatten and simplify nature, we lessen the need for many customarily repeated acts that open choices for self-expression.

I don't mean to suggest that we are somehow ennobled by a wholesale return to more primitive levels of adaptation. There is real suffering in being too hot or too cold, or in having to migrate immense distances to follow the seasons. The permanent places where we spend time do need to reduce stress on our minds and bodies. But there is a real question of means: do our buildings have to hide from us every small variation in the environment that might repeatedly summon us to action?

Rather, something deeply reassuring comes when our actions are consonant with the motions of nature. It is a reaffirmation of our own existence—a continuous call for choices that define who we are as individuals. Our need for this call should not be underestimated nor trivialized by design.

My challenge to designers is to acknowledge and celebrate the rhythmic nature of nature. All things respond to change and to transitions from one state of the environment to another: hot to cold, wet to dry, calm to breezy. Some of these changes are random, as when a passing cloud releases a brief shower, cooling a hot day. Others, though, recur at predictable intervals. We can expect