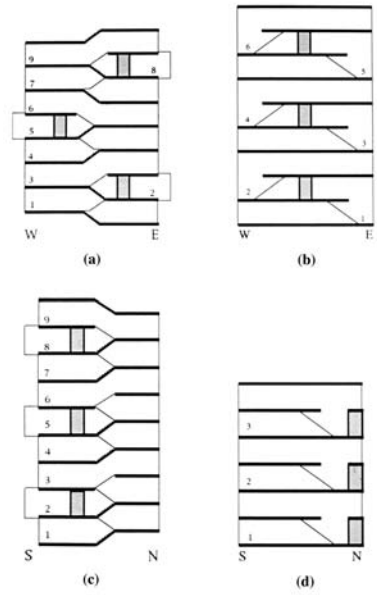


8 The Solar Envelope



THE SUN IS FUNDAMENTAL TO ALL LIFE. IT IS THE SOURCE of our vision, our warmth, our energy, the rhythms and rituals of our lives. Its movements inform our perceptions of time and space and our scale in the universe. Assured access to sunshine is thus important to the quality of our lives.

It is a simple fact that tall buildings cast long shadows. A 50-story tower in Los Angeles casts a shadow about 1000 feet long (305 m) between 1 and 2 p.m. in December. By 3 p.m., that building's shadow is close to 1800 feet long (549 m), with an area equivalent to two city blocks. Its leading edge cuts across the swimming pool of a popular downtown hotel, isolating a few sunbathers in a narrow strip of warm sunlight. The rest of the pool area is shadowed, cold and empty.

There is an ethical issue here as well as an issue of quality of life. While I may choose to stand in shadow, I resist a developer's mandating it. If I occupy a building in the wake of another's shadow, I will resist that violation of my right to the sun's light and heat.

There are recent energy-conscious building designs that accomplish their efficiency goals at the expense of their neighbors. A building that publicizes its use of the sun to save energy but deprives its neighbors of the same opportunity is clearly on questionable ethical ground. By using a concept of solar zoning called *solar envelope*, which describes the volumetric limits to development that will not shadow neighbors, we can address the ethical issues of a right to sunshine in cities. We can also reclaim the accents, meter, and tempo of nature in our lives.

The solar envelope represents what urban planner Frederick R. Steiner, in a general reference to planning, describes as "a philosophy for organizing actions that enable people to predict