

everyone can recall seeing ice crystals in the shadows of a rock. On a winter night tiny spikes appear everywhere. Then in the morning, the sun begins to melt all but those spikes hidden in the rock's shadow. As the sun moves from east to west, the shadow shifts and, by sunset, only a frosty crescent remains just to the north of the rock. Then it is night and the whole cycle starts over again.

The rhythms of natural boundaries are often complex and contrapuntal. This is evident at the beach where we can see a combination of different rhythms in the rising and falling of the ocean's surface. Waves act at the fastest tempo chasing birds, children, and barking dogs a few feet up the sand, then tempting them back again. If we stay for most of a day, we can watch the tide ebb and flow, shifting the stage from lower to higher on the beach. If we return on successive days over the course of a month, we will see the effect of a lunar cycle on the life in this tidal zone. And finally, if we return at different seasons of the year, our impressions will swing gradually to and fro as, within the single harmonic texture, each different rhythm retains its separate character.

Just as in nature, rhythmic boundaries also define the spaces we ourselves make and occupy. Most people understand architectural space as enclosed by fixed elements such as floors, ceilings, and walls. Yet space can be thought of dynamically as well, defined by passing sensations of sound, smell, and shadow.

Shadows from a wall alternately expand and contract. And, although we tend to see shadows only as a darker portion of a lighter plane, in fact they have volume, a space we can occupy for a while. How long we might be able to stay within a shadow can depend on the wall's orientation to the sun. Think of a garden wall in two orientations with a gateway through it.

A wall facing east and west will emphasize a daily rhythm. Morning sun strikes the east side, casting a shadow to the west. As the sun advances, the shadow shrinks, nearly disappearing by

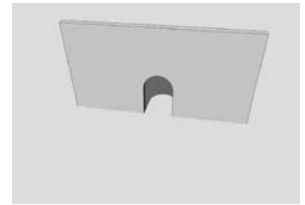
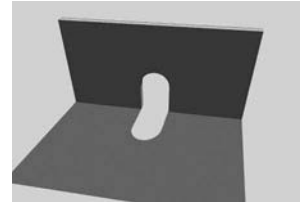
noon. Then as afternoon sun strikes the west side, a shadow grows on the east, reversing the picture. Anybody seeking sunshine must move daily from east to west through the gate in the wall. Seeking shade, they will pass in the opposite direction.

By comparison, a wall facing north and south will accentuate a seasonal rhythm. Summer shadows at midday will be small, having shrunk through the spring to a thin ribbon at the base of the north side. Winter shadows will grow northward during the fall before cycling back toward the wall throughout the spring. Clearly there is a problem with finding a cool shady place to sit in summer; and if the wall overshadows our garden in winter, there may be a problem finding a warm sunny place as well.

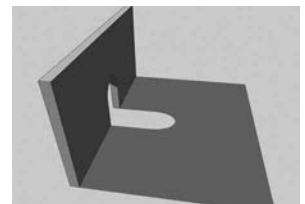
Rhythmic boundaries of space emerge depending on which of our senses we are using. Is it by light or heat that we appreciate a moving shadow? Is it by busy daytime sounds through an open window that we are first made aware of a street, then released from its hold as evening sounds subside? Is it by delicious smells of morning coffee filling the air that a kitchen ebbs and flows daily into the rest of the house? Space thus defined does not have fixed dimensions of distance, area, or volume. Instead, passing sensations rhythmically alter the proportions of space.

DOMAINS OF CHOICE IN TIME

The anthropologist Gregory Bateson observed that a real choice depends on comparing at least two different *somethings*; one something won't do.¹ But if we are to be sure that the possibilities are genuine, they must exist reasonably close to each other in our experience. Spatially, a choice exists between different sensations. Rhythm helps in this regard by alternating our experience of things, one after another, for easy comparison. Of course, the tempo of change must be neither too fast nor too slow. We must be able to *experience* the difference for it to *make* a difference.



Morning and Afternoon
Shadows: Cast by an
east-west-facing wall.
(North to the left.)



Summer and Winter Shadows:
Cast by a north-south-facing
wall. (North to the right.)