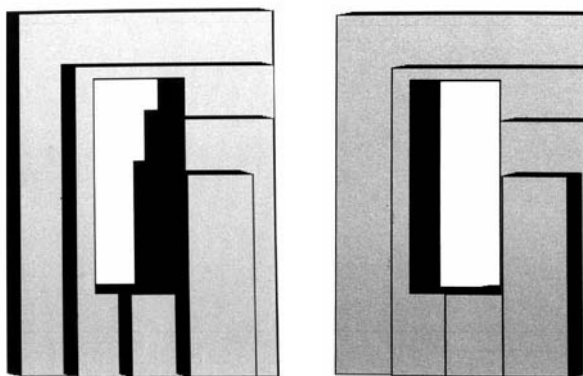
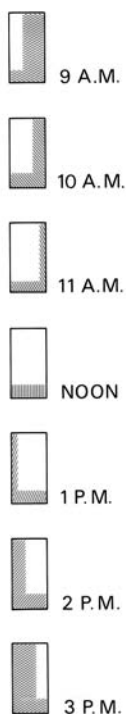


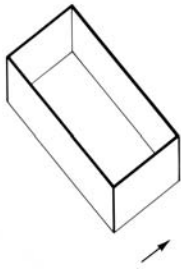
Shadows in North-South-Elongated Courtyard: The major boundary between light and shadow moves daily from west to east. The diagram shows equinox shadows but this daily cycle holds for all seasons.



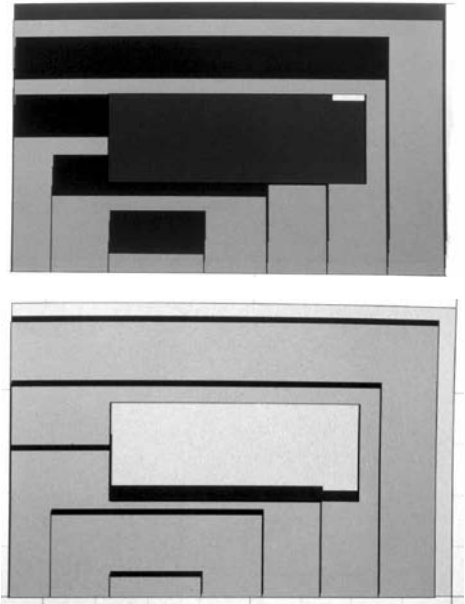
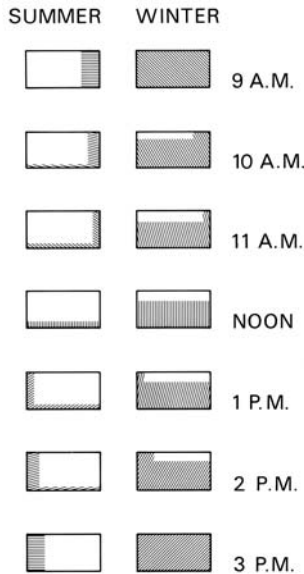
Courtyard Elongated North-South:
(Left) Morning shadow;
(Right) Afternoon shadow.
(North is up.)

shadows. Height and shape of the surrounding mass of the building, along with courtyard proportions, work together to affect shadows. Regardless of such differences, daily rhythms remain predominant.

Open courtyards in this orientation receive full midday summer sun; fortunately, unless they are excessively deep, they also get a fair portion of the midday winter sun. The Los Angeles winter sun rises to the south of east and sets to the south of west, attaining a low-altitude angle due south at noon. Still, winter shadows do not reach the north end of the patio for a considerable period of the midday, leaving a sunny place where office workers may want to relax in the garden for socializing during their lunch break.



Shadows in East–West–Elongated Courtyard: The major boundaries between light and shadow emphasize a seasonal rhythm.



Courtyards Elongated East–West: (Top) Midday, winter, the patio is completely in shadow; (Bottom) Midday, summer, the patio is nearly all in direct sun and requires protection. (North is up.)

COURTYARDS ELONGATED EAST TO WEST

A seasonal cycle of light and shadow, and more especially of heat and cold, structures life within east–west–elongated courtyards. There are daily changes as well. But it is the seasons that are most intensely felt because of the dominating effect of deep shadows cast by the long wall on the south edge of the courtyard.

Again, the diagrammatic example shows a simple courtyard. Massing will affect courtyard shadows here as well. But even when the massing is more complex, the basic rhythm of change remains seasonal.

In Los Angeles, with prevailing summer winds from the west and winter sun from the south, a courtyard orientation that works with the sun can work against the wind and vice versa. This is an especially critical factor in designing a courtyard cover if the