Project Four. High-density housing with a density range of 76 to 128 du/ac (188 to 316 du/ha): (Top) A view from the southeast showing three separate designs in the foreground sharing a continuous envelope that intentionally overshadows a public park; (Bottom) A view from the northwest showing two well-integrated designs in the foreground, again sharing a continuous envelope.

to be aware of the passing seasons. Midwinter light will reach deep inside those rooms facing south, even to the back walls and perhaps beyond, into a next adjoining layer of space. Midsummer light will likely not enter the south rooms at all but will angle shallowly into north-facing rooms very early in the morning and again late in the afternoon before sunset. Under these circumstances, the relative location of bedrooms or living rooms can make a big difference to life in the place.

Project Four

Located on a hillside close to downtown, this project achieves a density range of 76 to 128 du/ac (188 to 316 du/ha), the highest densities reached in the study. The site is inappropriate for very large commercial structures but ideal for the high-density housing that is so needed in the downtown area. Design requirements for unit size and parking are the same as for the third project, and the building sections diagrammed there are used here as well.

Solar-envelope rules for time constraints are the same as for the third project, but the space constraints have been altered. First, there are no sideline setbacks. Second, the solar envelope runs continuously without dropping at property sidelines. Finally, overshadowing is purposely allowed on a north-facing slope that has been left open as a public park. Combined, these three changes have the effect of providing more envelope volume than in any of the earlier projects. S:V also drops to the lowest value achieved in the study, setting a limit on density while still providing solar access and cross-ventilation to every housing unit.

Research Findings

These four housing projects cover a density range that falls short of the full range of densities possible under Los Angeles zoning, but for two different and opposing reasons. The lowest housing