

## THE SPANISH HOUSE



A Spanish Courtyard House.  
(Photo supplied by John S. Reynolds.)

The traditional courtyard houses of southern Spain gain comfort by means that transform space by day and by season. John Reynolds has described how Spanish courtyard houses typically use several rhythmic adjustments to nature.<sup>6</sup> One example is the house of Victor Carrasco in southern Spain where extremely hot and dry summers make cooling the major problem.<sup>7</sup> The adjustments he describes modify the courtyard space that centers the house. They also match up with family rituals, private and often joyous.

One of the most appealing characteristics of Carrasco's courtyard, according to Reynolds, is the sound of water. Several small fountains echo softly in the resounding space. The patio floor is made of absorbent brick set in porous mortar. This floor is capable of absorbing water, splashed on it during watering of the plants in the patio and deliberately sprayed for cooling several times daily.

Shading for the patio depends on a movable horizontal white translucent canvas cover or *toldo*. Like a large tree, the *toldo* casts shade over the entire patio during a hot summer day; unlike a tree, it is swept away in the early evening to facilitate both ventilation and cold-sky radiation at night. Winter reverses the cycle. As falling leaves permit warming rays of the sun to pass through a "mantilla of bare branches," so the *toldo* is folded back during the day to let sunlight flood the patio; then at night it is closed to retain the heat that was collected during the day.

Adjusting the *toldo* provides desirable shade but we can also imagine how it changes the feeling of space. Open, the *toldo* extends the view to the sky, shrinking pupils to pinpoints. Leaves of a tree or of a vine appear in dark outline, wind stirs shadows across the patio floor. The sounds of neighborhood children, passing cars, and barking dogs remind the family of a wider world. In contrast, the closed *toldo* limits the view, darkens and quiets the



Spanish Toldo: Closed and open. (From *Courtyards: Aesthetic, Social, and Thermal Delight* by John S. Reynolds 2002, 187)

space. Sharp contrasts give way to suffused light; moving shadows, to still shade. The atmosphere is more protective, more intimate. Only at the edges of the courtyard, where the toldo does not quite meet the walls, does there remain a trace of the outside brightness.

Such imagery implies an enriched courtyard life. The splashing water not only cools the space but also enhances the fragrance of flowers. Parents spray their delighted children who then take advantage of the remaining water for a round of puddle-jumping games. Birds fly in for a cooling drink, their noise startlingly loud inside the walls. Everything depends on whether the toldo is open or closed, whether it is winter or summer, morning or evening.

### THE INDIAN HOUSE

The rhythms of life in southern India are set by the monsoon. While northwestern India is extremely dry, southern regions have a predominantly coastal climate with the Arabian Sea to the west, the Indian Ocean to the south, and the Bay of Bengal to the east. Most of the year is hot and humid with a cooler monsoon season starting toward the end of May and continuing until early September.<sup>8</sup>

Celebrating the monsoon's arrival evokes a series of distinctly Indian customs ranging from small, private ceremonies to large festivals involving whole communities across the country. Activities range from keeping an ear out for the proclaiming call of the first *koyal* (cuckoo) to the grand celebration of *Teej*, welcoming the monsoon. During this time, people adjust their houses and gardens in preparation for the arrival of 3 to 4 months of continuous rain.

Kavita Rodrigues, a graduate student in building science, has supplied a rich account of her life in southern India. She begins with memories of her childhood in Mumbai (Bombay).



Spanish Toldo Viewed from Inside: Open (Photo supplied by John S. Reynolds); and closed (From *Courtyards: Aesthetic, Social, and Thermal Delight* by John S. Reynolds 2002, 87).