

Seasonal Change Accentuated in an East–West–Elongated Space: (Top) Plan; (Middle) Section through open street or courtyard; (Bottom) Section through roofed space.

becomes the dominant force. But whether in an open street or courtyard or in a Gothic nave, east–west elongated spaces emphasize a seasonal rhythm.<sup>5</sup>

Light entering the nave, mainly through the south-facing clerestory, offers a yearlong narrative. The high summer sun barely enters the space, rendering interior surfaces in muted contrasts. In fall, sunlight enters full through richly stained windows, reconfiguring worshipers as they pass below. The brightly colored patterns emerge first on the floor. Then, throughout the fall, they migrate northward across the floor before climbing up the north wall toward the triforium, the arcaded story between the nave arches and clerestory. After seeming to pause there for the winter solstice, the patterns change direction, retreating downward and back across the floor during springtime. The cycle is completed when the patterns die temporarily at the south line of nave arches in midsummer. Then, after pausing, the cycle starts over again.

Understanding this nave cycle takes a year. If one is to appreciate the full and varied richness of its transmutations, one must spend time in the place. Passing through just once, coming at only one season and no other, won't do.

Reorienting the space 90 degrees alters the rhythm of change. Spaces that are elongated north and south have their major exposures to the east and west, which emphasizes a daily rather than a seasonal change. In an open street or courtyard, morning light from the east first descends the west wall to flood the space by midday. As the sun moves into the western sky, afternoon light fades from the east wall before leaving the space entirely in darkness at sunset. Seeking either sunlight or shadow for comfort can involve moving daily from one side of the space to the other. Roofing the space, as in the Gothic transept, gives emphasis to light entering first through east-facing windows and then through those on the west.

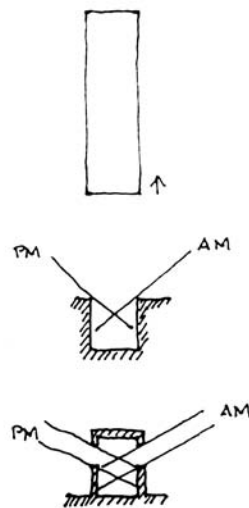
Light entering the transept, first from the east and then from the west, tells the story of a day. Morning light enters the transept's east-facing clerestory, making patterns that descend the opposite wall and shrink as they travel eastward across the floor. At midday, for a few moments, the light enters neither side of the transept, momentarily breaking the cycle, throwing all into shadow. Then, gradually, as light begins to enter the transept through the western clerestory, new patterns emerge on the floor, growing larger and more distinct as they resume their eastward movement. Finally, climbing the opposite wall, they disappear with the setting sun. Understanding this transept cycle takes a day. Passing through in either morning or afternoon won't tell the whole story.

While two separate rhythms are at work in the nave and transept, something special happens at the crossing. Where the two major spaces intersect, their independent rhythms of sunlight are both at work. The result is a complex and contrapuntal transformation of space. When combined with the movement of the processional through the tapestry of colored light, the sweet smoke of incense drifting from swinging censers, and the echoing of chants within the stone arches, the effect is indivisible and transcendent.

Of course, the cruciform plan has great symbolic value for Christians. Yet, what the form does architecturally cannot be denied. The nave and transept are different, not just compositionally but also in their response to the passage of time. The Gothic genius lay in symbolically connecting the rhythm of those luminous variations to the rituals of religious life.

## A Machine for Living In

While the house and the church have traditionally been rooted in the complex counterpoint of nature, the machine has made our modern life temporally regular and spatially uniform. We are, by



Daily Change Accentuated in a North-South-Elongated Space: (Top) Plan; (Middle) Section through open street or courtyard; (Bottom) Section through roofed space.