

to the beach to sun or swim, or the elderly in search of a bench. The intensity and nature of the activity may vary but there is an expectation that specific experiences will be possible in the place and that particular resources will be available.

Based on our review of past research and case study sites, five types of reasons seem to account for people's needs in public spaces: comfort, relaxation, passive engagement with the environment, active engagement with the environment, and discovery. Any one encounter with a place may satisfy more than one purpose. It is important to examine needs, not only because they explain the use of places but also because use is important to success. Places that do not meet people's needs or that serve no important functions for people will be underused and unsuccessful.

Comfort

Comfort is a basic need. The need for food, drink, shelter from the elements, or a place to rest when tired all require some degree of comfort to be satisfied. Without comfort it is difficult to perceive how other needs can be met, although people sometimes will endure major discomforts in attempts to enjoy themselves.

Relief from sun or access to sun is a major factor in the use of specific places, as indicated by our review of past research. Studies conducted in cool cities such as Seattle (Project for Public Spaces, 1978) and San Francisco (Bosselmann, 1983a, 1983b; Lindsay, 1978), with many overcast days, indicate that design of an outdoor space to allow maximum sunlight may be one of the most crucial factors in the success of the space. The San Francisco Downtown Plan (San Francisco Department of City Planning, 1985), heralded as a model for other cities, uses solar access to public spaces as a basis for controlling new development projects downtown. A film that included time-lapse footage made by Jamie Horwitz and Stephan Klein in 1977 traced the pattern of people sitting on the steps of the New York Public Library. The moving path of the January sun defined the places where people were sitting and the film caught this remarkable choreography.

Research in other parts of the country often stresses the need for some escape from the sun. A study of the Chicago First National Bank (Rutledge, 1976) indicates that lack of relief from the sun was a major source of user dissatisfaction; this situation is said to be "aggravated by the glare which

rebounded from the Plaza's unyielding reaches of granite" (p. 59). Research at Riis Park, a beach and landscaped shore in New York City (Madden & Bussard, 1977), suggests that even at a seaside recreation place, certain segments of the population may not value maximum exposure to sunlight. For these people, shade from trees, umbrellas, or some form of shelter is required. As people become more aware of the hazardous effects of the sun, the provision of shade will become essential. Shelter, whether from the sun, the rain, or inclement weather, is an important but frequently neglected element of open space design. Becker (1973, p. 453), in his evaluation of Sacramento's former downtown pedestrian mall, suggests that people who used the mall for extended periods of time were particularly bothered by the lack of "protection from the weather." An excellent but expensive form of multipurpose outdoor shelter is provided at New York's Greenacre Park, where a covered terrace on a section of the site provides shade and also contains an overhead heating element for cold days.

Comfortable and sufficient seating also is an important aspect of nearly any successful open space. Particularly important features of physically comfortable seating include the orientation of the seating, its proximity to areas of access, seating that is movable, seating for individuals and groups, seating that enables reading, eating, talking, resting and privacy, seats with backs, and, in the case of adults with children, seating in the sight line of play areas.

Comfort is also a function of the length of time people are to remain in a site. The steps of the New York Public Library or the Metropolitan Museum in New York could be adequate seating for the time it takes for a friend to arrive or for a view of the street performers below, but might not comfortably support an afternoon of sitting. A dramatic example of seating that does not accommodate users is provided by Clare Cooper Marcus (1978) in her observations of Minneapolis' Federal Reserve Plaza. During an observation session she found seven of the nine people in the plaza seated on the concrete floor instead of on the sculptural, rounded "sausage benches" that fill the plaza. It seems likely that other potential users chose not to go to the plaza at all.

In addition to physical comfort, seating should be designed so as to offer social and psychological comfort. For some years, William Whyte has been studying people in public places and he has been a careful documenter of the qualities of places that stimulate or frustrate people's needs. A major finding of his work, reported in *The Social Life of Small*