they might look back. "Up North" and "down South" reflect our accepted custom of putting north at the top and south at the bottom of our maps.

## Distance

Distance joins location and direction as a commonly understood term that has dual meanings for geographers. Like its two companion spatial concepts, distance may be viewed in both an absolute and a relative sense.

Absolute distance refers to the spatial separation between two points on the earth's surface measured by some accepted standard unit such as miles or kilometers for widely separated locales, feet or meters for more closely spaced points. Relative distance transforms those linear measurements into other units more meaningful for the space relationship in question.

To know that two competing malls are about equidistant in miles from your residence is perhaps less important in planning your shopping trip than is knowing that because of street conditions or traffic congestion one is 5 minutes and the other 15 minutes away (Figure 1.5). Most people, in fact, think of time distance rather than linear distance in their daily activities; downtown is 20 minutes by bus, the library is a 5 -minute walk. In some instances, money rather than time may be the distance transformation. An urban destination might be estimated to be a $\$ 10$ cab ride away, information that may affect either the decision to make the trip at all or the choice of travel mode to get there. As a college student, you already know that rooms and apartments are less expensive at a greater distance from campus.

A psychological transformation of linear distance is also frequent. The solitary late-night walk back to the car through an unfamiliar or dangerous neighborhood seems far longer than a daytime stroll of the same distance through familiar and friendly territory. A first-time trip to a new destination frequently seems much longer than the return trip over the same path. Nonlinear distance and spatial interaction are further considered in Chapter 8.

## Size and Scale

When we say that a place may be large or small, we speak both of the nature of the place itself and of the generalizations that can be made about it. In either instance, geographers are concerned with scale, though we may use that term in different ways. We can, for example, study a problem such as population or landforms at the local scale or on a global scale. Here, the reference is purely to the size of unit studied. More technically, scale tells us the relationship between the size of an area on a map and the actual size of the mapped area on the surface of the earth. In this sense, as Chapter 2 makes clear, scale is a feature of every map and is essential to recognizing what is shown on that map.

In both senses of the word, scale implies the degree of generalization represented (Figure 1.6). Geographic inquiry may be broad or narrow; it occurs at many different sizescales. Climate may be an object of study, but research and


Figure I. 5 Lines of equal travel time (isochrones: from Greek, isos, equal, and chronos, time) mark off the different linear distances accessible within given spans of time from a starting point. The fingerlike outlines of isochrone boundaries reflect variations in road conditions, terrain, traffic congestion, and other aids or impediments to movement. On this map, the areas within 30 minutes' travel time from downtown San Diego are recorded for the year 2002. Note the effect of freeways on travel time.
generalization focused on climates of the world will differ in degree and kind from study of the microclimates of a city. Awareness of scale is very important. In geographic work concepts, relationships, and understandings that have meaning at one scale may not be applicable at another.

For example, the study of world agricultural patterns may refer to global climatic regimes, cultural food preferences, levels of economic development, and patterns of world trade. These large-scale relationships are of little concern in the study of crop patterns within single counties of the United States, where topography, soil and drainage conditions, farm size, ownership, and capitalization, or even personal management preferences may be of greater explanatory significance.

## Physical and Cultural Attributes

All places have individual physical and cultural attributes distinguishing them from other places and giving them character, potential, and meaning. Geographers are concerned with identifying and analyzing the details of those

