7

Qualitative thematic maps

Lab questions
Maps that use qualitative symbols to show attributes of the environment are normally rather easy to read. Problems may arise if the mapmaker has done a poor job of coordinating symbol design with features represented, however. You may also have some trouble with multivariate symbols, since maps employing these symbols are really several maps in one. The following exercises will help you review the material presented in the chapter.

1. Using maps from the printed media (newspapers, news magazines), find examples of the classes of qualitative symbols discussed in this chapter. Separate your examples into single-theme and multivariate maps and by whether point, line, or area information is being displayed.

2. The graphic elements of shape, color hue, and orientation, are appropriate for qualitative symbols. But mapmakers do not always use these elements appropriately. Look over your maps from the previous exercise and find examples of good and poor designs. Are poor designs more common with multivariate symbols? Why might this be so?

3. Qualitative area symbols that represent composites of variables look the same as those that show a single variable, yet they contain far more information. Shellfish distribution and soil maps are examples that were discussed in this chapter. See if you can find additional examples in other books, atlases, or from the Internet. Determine which features are combined or overlaid on each map. Are some combinations of features easier to read than others and, if so, what makes particular combinations harder or easier to read?

4. Examine the following six maps of the Las Vegas, Nevada, region from 1907 to 1995 (courtesy of the U.S. Geological Survey), along with a generalized street map of the region such as you might obtain on the Internet. Write a description of the amount and spatial pattern of the ever-growing urban area over this time period.
5. Write a short essay describing what the two maps below tell you about where the Western Tanager lives and how it migrates.

![Map of Western Tanager's range and migration routes]

6. Gypsy moths spread rapidly across New England from 1890 to 1971. Describe the speed and direction(s) of spread at different time intervals during this period.

![Map showing the spread of the Gypsy Moth from 1890 to 1971]