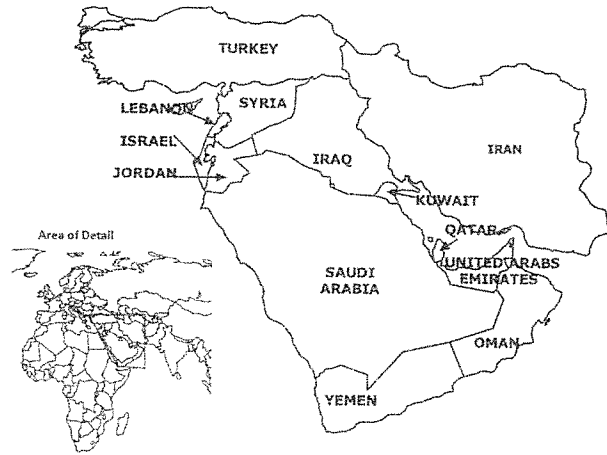


the characteristic is predominant, but not universal. In other words, some Shiites might live in Sunni lands and vice versa.

- **Functional regions** – Sometimes called nodal regions, functional regions are areas organized around cores, or nodes. Visually, the space can be seen as having interdependent parts that all operate together and connect, but with a center that directs the movements and characteristics of non-central parts. The **core** area has distinct characteristics that lessen in intensity as one travels into the **periphery**, or the region's margins. A city often forms the core of a region. For example, Denver, a U.S. city in the state of Colorado (a formal region), is the center of trade, transportation, business, and culture for a region that extends beyond the formal borders of the state. People in Wyoming might follow Denver's baseball team (the Rockies), but probably not in as great numbers as people that live in Denver. Likewise, *The Denver Post*, a newspaper produced in Denver is read in many towns and rural areas in its periphery. As you travel west from Denver, you will eventually venture into the peripheral areas of Salt Lake City, a core that exerts its own influences throughout a large area of the formal region known as "Utah."



Formal Regions in the Middle East. Formal regions are often designated by governments to mark boundaries that define political authority and differentiate political states from one another.

- **Perceptual regions** – Sometimes called vernacular regions, perceptual regions are not as rigorously structured as formal and functional regions. Instead, they are places that people *believe* to exist as a part of their cultural identity. They reflect feelings and images more than any objective reality, such as physical features, formal political boundaries, or economic centers. Almost all human beings define their lives by thinking about perceptual regions. For example, despite the fact that the Korean peninsula is divided into two formal regions (North Korea and South Korea), the people of the area have

a long history of cultural identity as "Koreans" with a common language and similar customs that distinguish them from the nearby region of "Japan." Physical geography certainly has played a role in the development of these perceptions, since Korea is a peninsula and the region called Japan is a series of islands. However, even if Koreans move to Japanese cities, or Japanese move to Korean cities, they shape their new spaces in terms of perceptual regions. Another example on a smaller scale is the appearance of a "Little Italy" or "Little Chinatown" in many American cities. Cultural perceptions shape the way people view their spaces.

INTERCONNECTIONS AMONG PLACES

Places connect to form patterns, and patterns connect to form regions. Likewise, regions connect to form broader regions that eventually connect to other parts of the globe. It's all a matter of scale, and geographers may alter their lens to focus locally, regionally, or globally. For many reasons, global connections are rapidly growing through a process called **globalization** – the expansion of economic, political, and cultural activities to the point that they reach and have impact on many areas of the world. Geographers use the term **space-time compression** to describe the changes that rapid connections among places and regions have brought. Distant places are brought much closer not only through faster transportation and communication, but through new technologies – such as televisions and computers – that bring images from those places into our homes, businesses, and schools.

One type of evidence for globalization in the political realm is the increasing number of international organizations that have appeared in recent decades. Although the world is still organized by national governments, international organizations such as the United Nations and the European Union are now significant players in world politics. Economic globalization is apparent through the proliferation of **multi-national corporations** that have centers of operation in many parts of the globe. Well-known examples are Coca-Cola, McDonald's, and the Disney Corporation. Television broadcast companies, such as CNN and the BBC, also operate internationally. Cultural globalization manifests itself in popular music, television, and film that spread American culture across the globe.

Critics of globalization sometimes fear that globalization is a threat to regional and local uniqueness. For example, a few years ago French farmers dumped manure in the roads leading to EuroDisney outside Paris to protest American influence. On the other hand, local and regional uniqueness show few signs of disappearing. Instead, the spatial view of earth as a web of interconnected places, from local to global, still accurately describes the geographer's lens on the world.

NEW GEOGRAPHIC TECHNOLOGIES

For many years maps have served as important tools for storing and sharing geographic information. In the past few decades, two important technologies – GIS (geographic information system) and GPS (global positioning system) – have been developed to advance geographical knowledge.

A **GIS (geographic information system)** is a computer system that captures, stores, analyzes, and displays data. GIS measures the position of an object on earth and stores it in a computer along with countless other specific measurements. The geographer may manipulate this data to combine them into an image or a map that is more accurate than anything drawn by hand. Each type of information may be stored in a layer, and then layers may be combined to present the overall image. For example, one