BOX 9.1 Efforts to model the North American city capture some of the changing character of such cities during the mid-twentieth century. The first such model to receive wide attention, the **concentric zone model** (see accompanying figure), resulted from sociologist Ernest Burgess’s study of Chicago in the 1920s. Burgess’s model divides the city into five concentric zones, defined by their function. As the city grew, land was converted into zones around the outside margins of the city, and the concentric zone model emerged. At the center is the CBD (1), itself subdivided into several subdistricts (financial, retail, theater). The zone of transition (2) is characterized by residential deterioration and encroachment by business and light manufacturing. Zone 3 is a ring of closely spaced, modest homes occupied by the blue-collar labor force. Zone 4 consists of middle-class residences, and Zone 5 is the suburban ring. Burgess described his model as dynamic. As the city grew, inner zones encroached on outer ones, so that CBD functions invaded Zone 2 and the problems of Zone 2 affected the inner margins of Zone 3. In the late 1930s, Homer Hoyt published his **sector model**, partly as an answer to the limitations of the Burgess model. Hoyt focused on residential patterns, explaining where the wealthy in a city chose to live. Hoyt argued that the city grows outward from the center, so a low-rent area could extend all the way from the CBD to the city’s outer edge, creating zones that are shaped like a piece of pie. Hoyt found that the pie-shaped pieces describe the high-rent residential, intermediate rent residential, low-rent residential, educational and recreation, transportation, and industrial sectors. Researchers studied both theories, and Chauncy Harris and Edward Ullman argued that neither the concentric rings nor the sector model adequately reflected city structure by the mid-twentieth century. In the 1940s, they proposed the **multiple nuclei model**. Their model recognizes that the CBD was losing its dominant position as the single nucleus of the urban area. Several of the urban regions shown in the figure have their own nuclei.

**Modeling Cities in World Regions**

As the number of cities in the world with millions of inhabitants can now be counted in the hundreds, it has become increasingly difficult to model, classify, or typify urban centers. In the 1960s, researchers classified "colonial" cities as urban areas where European transplants dominated the form of the city, laying it out with Western styles. Researchers also drew models of "indigenous" cities that remained remote from globalization influences and various Western urban forms. The rapid growth in the population and territorial footprint of megacities in the developing world has made it difficult to model many urban areas. Such cities have large populations, a vast territorial extent, and frequently a strained, inadequate infrastructure. For example, Mumbai, India, has more people than the country of Australia. São Paulo, Brazil, covers more land than the country of Belgium. Kinshasa, Democratic Republic of the Congo, is the fastest growing city in Africa. Jakarta, Indonesia, is the largest city in the world without a subway or metro system. In Middle East and South America, Mexico City (Mexico) and São Paulo (Brazil) are now the kinds of megacities that make analysis difficult. Nonetheless, some cities located in South American countries once colonized by Spain have retained a common social-spatial geography. Also, some former colonial cities in Sub-Saharan Africa have maintained the spatial components lost in megacities such as Lagos (Nigeria) and Kinshasa (Democratic Republic of the Congo).

**The South American City**

In 1980, geographers Ernst Griffin and Larry Ford studied South American cities and derived a model of the South American city referred to as the Griffin–Ford model. Griffin and Ford found that South American cities blend traditional elements of South American culture with the forces of globalization that are reshaping the urban scene, combining radial sectors and concentric zones. Anchoring the model is the thriving CBD, which remains the city’s primary business, employment, and entertainment focus. The CBD is divided into a traditional market sector and a more modern high-rise sector. Adequate public transit systems and nearby affluent residential areas assure the dominance of the CBD. Emanating outward from the urban core along the city’s most prestigious axis is the commercial spine, which is surrounded by the elite residential sector. This widening corridor is essentially an extension of the CBD. It features offices, shopping, high-quality housing for the upper and upper-middle classes, restaurants, theaters, and such amenities as parks, zoos, and golf courses. At the end of the elite spine sector lies an insipid edge city shown as "mall" on the model and flanked by high-priced residences. This development reflects the emergence of suburban nodes from the North American model in South America’s cities.

In the Griffin–Ford model, the remaining concentric zones are home to less-well-off residents, who compose the great majority of the urban population. Socioeconomic levels and housing quality decrease markedly with greater distance from the city center (Fig. 9.23). The zone of latitude in the inner city contains the best housing outside the spine sector, attracting middle-class residents who invest sufficiently to keep their solidarity built but aging dwellings from deteriorating. The adjacent zone is one of much more modest housing,appersized with the more modest areas are densely populated slum areas that represent a transition from inner-ring affluence to outer-ring poverty. The outermost zone of peripheral squatter settlements is home to the impoverished and recent migrants who live in shantytowns. Shantytowns are unplanned developments of crude dwellings and shelters made mostly of scrap wood, iron, and pieces of cardboard that develop around the CBD. Although the ring of peripheral squatter settlements consists mainly of teeming, high-density shantytowns, many residents here are surprisingly optimistic about finding work and improving their living conditions. A structural element common to many South American cities is the _dismantlement_ sector, the very poorest parts of cities that in extreme cases are not connected to regular city services and are controlled by gangs and drug lords. The
FIELD NOTE

"February 1, 2003. A long-held hope came true today: Thanks to a Brazilian intermediary I was allowed to enter and spend a day in two of Rio de Janeiro's hillside favelas, an eight-hour walk through one into the other. Here live millions of the city's poor, in areas often ruled by drug lords and their gangs, with minimal or no public services, amid squall and stench, in discomfort and danger. And yet life in the older favela has become more comfortable as shacks are replaced by more permanent structures, electricity is sometimes available, water supply, however haphazard, is improved, and an informal economy brings goods and services to the residents. I stood in the doorway of a resident's single-room dwelling for this overview of an urban landscape in transition: satellite-television disks symbolize the change going on here. The often blue cisterns catch rainwater; walls are made of rough brick and roofs of corrugated iron or asbestos sheeting. There are no roads or automobile access, so people walk to the nearest road at the bottom of the hill. Locals told me of their hope that they will someday have legal rights to the space they occupy. During his campaign for president of Brazil, former president Lula de Silva suggested that long-term inhabitants should be awarded title, and in 2003 his government approved the notion. It will be complicated. As the photo shows, people live quite literally on top of one another, and mapping the chaos will not be simple (but will be made possible with geographic information systems). This would allow the government to tax residents, but it would also allow residents to obtain loans based on the value of their favela properties, and bring millions of Brazilians into the formal economy. The hardships I saw on this excursion were often dreadful, but you could sense the hope for and anticipation of a better future. In preparation for the 2014 World Cup, the city of Rio and government of Brazil demolished several favelas and spent millions of dollars working to provide services to remaining favelas in the path of the public eye."

The African City

At the beginning of this century, Sub-Saharan Africa included countries with some of the world's lowest levels of urbanization. In the tropical region of Africa, the majority of the people are farmers, and most countries in the tropics remain under 40 percent urbanized. Outside the tropics, the region is about 57 percent urban. Despite the region's comparatively low overall level of urbanization, Africa now has the world's fastest growing cities, followed by those in South Asia and mainland East Asia and South and Middle America. In contrast, the cities of North America, southern South America, and Australia are growing more slowly, and those of western Europe are barely growing at all. The imprint of European colonialism can still be seen in many African cities. During the colonial period, Europeans laid out prominent urban centers such as Kinshasa (Democratic Republic of the Congo), Nairobi (Kenya), and Harare (Zimbabwe) in the interior, and Dakar (Senegal), Abidjan (Côte d'Ivoire), Luanda (Angola), Maputo (Mozambique), and other ports along the coast. Africa even has cities that are neither traditional nor colonial. The centers of South Africa's major cities (Johannesburg, Cape Town, and Durban) remain essentially Western, with elements of European as well as American models and a veneer of globalization, including high-rise CBUs and sprawling upper-income suburbs.

As a result of this diversity, it is difficult to formulate a model of the African city. Studies of African cities indicate that the central city often consists of not one but three CBDs (Fig. 9.25): a remnant of the colonial CBD, an informal and sometimes periodic market zone, and a transitional business center where commerce is conducted from curbside, stalls, or storefronts. Vertical development occurs mainly in the former colonial CBD; the traditional business center is usually a zone of single-story buildings with some traditional architecture; and the market zone tends to be open-air, informal, yet still important. Sector development marks the encircling zone of ethnic and mixed neighborhoods (often characterized by strong ethnic identities as people of ethnic kin tend to cluster together). Since many African cities began as mining towns, such operations still occur in conjunction with this zone in some instances. Manufacturing companies still function here—taking advantage of the proximity to a nearby labor force. Incessantly, fast-growing African cities are encircled by vast shantytowns rapidly growing as a result of significant in-migration.

The Southeast Asian City

Some of the most populated cities in the world are in Southeast Asia. The city of Kuala Lumpur, Malaysia, is a complex of high-rise development, including the 1,483-foot-tall Petronas Towers, which until recently was the world's tallest building. The city of Jakarta, Indonesia, called Jabotabek by the locals, is an enormous conurbation of Bogor, Tangerang, and Bekasi.
In 1967, urban geographer T. G. McGee studied the medium-sized cities of Southeast Asia and found that they exhibit similar land-use patterns, creating a model referred to as the McGee model (Fig. 9.26). The focal point of the city is the old colonial port zone combined with the largely commercial district that surrounds it. McGee found no formal CBD; rather, he found the elements of the CBD present as separate clusters surrounding the old colonial port zone: the government zone; the Western commercial zone (practically a CBD by itself); the alien commercial zone, dominated by Chinese merchants whose residences are attached to their places of business; and the mixed land-use zone that contains miscellaneous economic activities, including light industry. The other nonresidential areas are the market-gardening zone at the outskirts of the urban area and, still farther from the city, a recently built industrial park or "estate."

The residential zones in McGee's model are similar to those in the Griffin-Ford model of the South American city. Other similarities between the McGee and Griffin-Ford model are the hybrid structure of sectors and zones, an elite residential sector that includes new suburbs, an inner-city zone of middle-income housing, and peripheral low-income squatter settlements. One main difference is that the McGee model includes middle-income housing in a suburban zone, reflecting the larger middle class in these cities of the global semiperiphery and the small middle class in South American cities.

Regardless of the region or city, we recognize that models do not explain how or why cities are organized the way they are. A model of a city shows us an end product, whether planned or not, and suggests the forces that created that end product.

HOW DO PEOPLE SHAPE CITIES?

People and institutions make places, including cities. The roles individual people, governments, corporations, developers, financial lenders, and realtors play in shaping cities vary across the world. Government planning agencies can directly affect the layout of cities by restricting the kinds of development allowed in certain regions or zones of cities.

Through zoning laws, cities divide up the city and designate the kinds of development allowed in each zone. Portland, Oregon, is often described as the best planned city in North America because it is built around free transportation in the central city to discourage the use of cars. Portland is a compact city with office buildings and residential zones in close proximity to encourage walking, biking, and public transportation. On the other hand, Houston, Texas, is the only large city that does not have zoning laws on the books. Houstonites voted against the creation of zoning laws three different times (most recently in 1993). In addition to government planning and zoning laws, people shape cities by choosing to live in certain neighborhoods and by opening stores, houses of worship, and even sporting fields that reflect the values of their culture. If you wander through the neighborhoods of any city and pay close attention, you can see differences in the existence of single-family or multifamily homes, in particular styles of construction and building materials, in the distance between houses, in the nature and style of vegetation around houses, in the distance between the houses and the streets, and even in the amount of space devoted to automobile movement and storage.

Comparing and contrasting the urban cultural landscapes of two cities helps us understand the different social and cultural forces at play. Compare Figure 9.27 with Figure 9.28. Analyze each picture and guess which city is located in a wealthy country in the world and which is located in a poor country. What factors can you consider? You may look at the presence or absence of high-rise buildings, the aesthetics of the buildings, the road, and the distance between houses. After doing so, you might guess that Figure 9.27 is in the wealthy country. Look again. This time, look for whether there are telephone and electrical wires, and note what building materials were used. Figure 9.27 is actually in a poorer country; it is the city of Lomé, Togo, in Subsaharan Africa.

Figure 9.28 is part of a suburb of Tokyo, Japan. Japanese houses in this middle-class neighborhood are almost on top of each other because the city is so densely populated that land is at a premium. In Lomé, the high rises are part of the CBD, and some of the houses immediately surrounding them are where the wealthy live. The houses in the foreground are where the poor live. Here the roofs are tin or cardboard, the