

CHAPTER 7

The City and Economic Geography

Then and Now

RICHARD WALKER

The place of the city in the rise of capitalism, both in the past in Europe and America and in the present in Asia and Africa, is one of the great puzzles of economic geography. Oddly, urban geography and economics have mostly gone their own ways over the course of modern scholarship in the social sciences. From time to time, interest in the city as an economic force—rather than as a way of life, monumental space, or cultural center—reappears in the literature. Recent years have seen a dramatic revival of such interest.

Some of the hottest ideas in economic geography and spatial economics over the last twenty years have concerned the role of cities in three domains: globalization, industrial clustering, and innovation (or creativity). These themes have featured repeatedly in the works of the leading economic and urban scholars of our time, including Saskia Sassen, Paul Krugman, Manuel Castells, Michael Storper, Allen Scott, Ken Glaeser, and Richard Florida.

Some significant advances have been made during this period in the systematic analysis of what makes cities tick as powerhouses of economic growth, yet I wish to argue that these themes are not as new as they seem. Indeed, they involve the rediscovery of basic principles of the operation of capitalist space economies and of urban economic geography. The phenomena they highlight go back to the early modern era, ramping up with a vengeance with nineteenth-century industrialization and continuing right through the Fordist and high-tech eras of the twentieth century.

Recent work builds on previous generations of scholars of the capitalist city and its economy, if not always in clearly acknowledged ways. The pioneers of urban economics before midcentury were George Allen (1920), Alfred Weber (1909), Robert Haig (1927), Walter Christaller (1933), Edgar Hoover (1937), and August Lösch (1940). They were succeeded after the Second World War by a new generation of university researchers, including Raymond Vernon (Hoover and Vernon 1959), Walter Isard (1956), Brian Berry (1967; Berry and Horton 1970), and Eric Lampard (Lampard 1955; Perloff, Lampard, and Muth 1960)—not to mention the great independent thinker Jane Jacobs (1969).

Allan Pred should be included among the list of great postwar students of urban economic geography. For the first half of his career, Pred produced an astonishingly rich series of studies that focused on the economy of cities. The key works are *The Spatial Dynamics of Urban Growth in the United States, 1800–1914* (1966), *Urban Growth and the Circulation of Information* (1973), *City-Systems in Advanced Economies* (1977), and *Urban Growth and City-Systems in the United States, 1840–1860* (1980). At the time he was one of the three most-cited geographers in the English language, along with Brian Berry (Pred's doctoral advisor) and David Harvey.¹

I want to highlight the work of Allan Pred on the three key themes of contemporary urban economic geography: globalization, industrial clustering, and innovation. In each of the three key thematic areas, Pred had something vital to say and did so by means of extensive empirical, historical research. Like all good scholars, he was in dialogue with previous thinkers, such as Lösch, Weber, Hoover, and Vernon. Like many social scientists of his generation, he was a systematic model builder. He was also deeply influenced by the emergence of cliometrics, or the data-driven study of economic history, led by Simon Kuznets and his circle at the National Bureau of Economic Research. Pred believed in mustering good quantitative evidence to back up his theories. But he was never a pure modeler and had a profound respect for the importance of history—and historical trajectories—in how places arrived at their present condition.

In what follows, I take up each of the three topic areas in more detail, laying out what contemporary urbanists are saying about the city in the modern economy, then reviewing what Allan Pred had to say in his relevant works, and highlighting his key contributions that remain pertinent to debates today over cities and globalization, cities and industry, and cities and creativity.

Global Cities and City Systems

Among economists, globalization is usually thought of in generic terms of flows of trade and finance between nations, and certainly such flows have increased dramatically over the last fifty years. But there is much more to the geography of the global economy than that. For one thing, those flows travel along definite networks between places: transportation routes, electronic cables and microwave stations, pipelines, and the rest. And such networks are managed by large firms, whether manufacturing corporations like Samsung, retail companies like Walmart, or intermediary shippers, merchants, and logistics handlers such as Evergreen.

Whatever the means or management, the web of international networks along which goods, money, and information flow is so striking that observ-

ers such as Manuel Castells (1989, 1996) have labeled the new global system as “the network society” and referred to this global geography as a “space of flows.” While true, this view of contemporary globalization fails to realize that capitalism has *always* generated a space of flows along the networks of commerce, finance, traders, and information. This was already clear in the nineteenth century, as Allan Pred (1966, 1973) showed in his research on U.S. cities a generation before Castells. It goes back much further with the rise of commerce and commercial cities in Europe, as Pred (1984) showed in a study of merchant family networks in the eighteenth century. Jan DeVries (1984), Fernand Braudel (1982), and other historians have shown the same to be true back through the seventeenth century and beyond.

Another dimension of the contemporary geography of globalization is that its spaces are not dispersed just anywhere; the “end of geography” as predicted by Richard O'Brien (1992) is not upon us. Nor is it a matter of connecting national spaces, as in international trade theory. Instead, it is made up of “nodes and networks,” as noted by geographers Ash Amin and Nigel Thrift (1992) and of a mix of specific locales knitted up across the world, or “the local and the global,” as discussed by other geographers such as Doreen Massey (1994) and Erik Swyngedouw (1997).²

What Pred also saw clearly is that the nodes in the networks are chiefly cities, as researchers such as Ken-Ichi Ohmae (1995) and Allen Scott (1998, 2008) have declared anew for the global economy. In the 1960s and 1970s, a discussion arose among urbanists and urban geographers about “systems of cities” (Berry 1964; Bourne and Simmons 1978). Pred became a leading commentator on the subject through a series of pathbreaking studies of American urban history over a decade and a half (1964, 1965, 1966, 1973, 1977, 1980). While, at that time, the reference space was principally national in scale rather than global, the key idea was clear: cities were the key nodes of economic activity and they related principally to one another. In his extensive research, Pred proved that—contrary to central place theory (Christaller 1933; Lösch 1940; Berry 1967) and theories of imperial cities lording it over hinterlands (Innis 1933; Cronon 1991; Brechin 1999)—cities do most of their business with other cities, *not* with the surrounding countryside. Moreover, Pred showed this to be true from the outset of commercial and industrial urbanization in the United States—pushing the origins of U.S. urban integration back a century earlier than previously recognized (1980, 117).

Along with the (re)discovery of globalization in the 1980s came the (re)discovery of a world of cities (Friedmann and Wolff 1982; Castells 1989). Indeed, the recent explosive growth of cities from China to Africa means that the global city system is more robust than ever (Scott 1998, 2008). A misleading aspect of

the new focus on global cities, however, has been an exaggerated focus on the Big Three: New York, London, and Tokyo (Sassen [1991] 2001; see also King 1990). While other cities are sometimes mentioned in the same breath as the Big Three, such as Los Angeles, São Paulo, and Beijing, the notion has persisted that the only cities that really count are the supersized ones. Worse is the belief that this is a new phenomenon generated by globalization. Neither is true, as Allan Pred well knew.

In fact, capitalist cities have always come in many sizes, from the largest metropolitan areas to the smallest towns, all of which are linked together. Indeed, this is whole point of speaking of *systems of cities*, as Pred did. City systems are hierarchical, with a small group at the top and steadily widening numbers at every scale below, as has been known for a long time (Zipf 1941; Madden 1956; Berry 1961). Indeed, an essential task for urban theory has been to explain urban hierarchy, going back to Christaller's (1933) central place theory and Lösch's (1940) market threshold variant on central places. But in no way should the existence of city hierarchies be read as saying there are only a handful of "global cities" that matter.

Pred went further than those before him in an effort to account for rank-size inequality, combining Löschian thresholds with Keynesian multiplier analysis and Gunnar Myrdal's circular and cumulative causation (as will be detailed in the next section). His model was laid out early on (Pred 1966) and remained much the same over all the works considered here (cf. Pred 1973, 1977, 1980). In short, he argued that early starters have "initial advantage" over late bloomers, big cities have persistent advantages over smaller places, and the advantages of the largest cities tend to increase over time. A generation later, Allen Scott has made the same case for global city regions, large metropolitan areas, and initial advantage—but on the basis of external economies rather than Keynes and Myrdal (cf. Scott 1998, 2000, 2005, 2008).

Although most of his work was on the nineteenth century, in *City-Systems in Advanced Economies* (1977) Pred looked at how large, multilocal corporations build interurban networks and concentrate their headquarters and support services in the top-most metropolitan areas. Corporate hierarchies were a popular way of explaining uneven development in the 1970s, but Pred's approach was more sophisticated than others because of its sense of the cross-cutting effects of interurban networks (contrast Hymer 1972; Massey 1984). Sassen ([1991] 2001) expanded the simple corporate hierarchy model to include the clustering of financial and business services in her global cities but again missed the system quality of global urbanization.³

Writing in the final decades of high Fordism, Pred was struck by the long-

term stability of the urban hierarchy (e.g., 1977, 33–37)—though he was aware that some cities that thrived in the past has been eclipsed by a changing industrial order. By contrast, later economic geographers paid more attention to upheavals in the urban-industrial hierarchy due to major industrial transitions and the expansion of capitalism in Asia (e.g., Scott 1988a, 2008; Storper and Walker 1989).

Another favored idea of the last twenty years has been that of production networks, or commodity chains, that span the earth from continent to continent. Recognition of such long-distance production systems, whether in electronics assembly or retail sourcing, has been one of the most fruitful areas of research in economic geography (Gereffi and Korzeniewicz 1994; Fields 2004; Coe, Dicken, and Hess 2008). Nevertheless, as Scott (1998, 2008) has insisted, few of these supply networks reach into rural areas; most of them link up centers of production in cities and industrial districts within cities. Cities are the prime locus of industrial and commercial activity, as they have been since the early days of capitalism, and the complexity of modern production chains has not changed that (Pred 1980, 167).

Industrial Clustering and Urban Agglomeration

A tremendous leap forward occurred in economic geography in the 1980s as the implications of the decline of high Fordism set in, forcing scholars to come to grips with a radically reorganized space economy (Amin 1994). The first glimpses of this came with the discovery of horrific deindustrialization in Britain and the United States circa 1980 (Bluestone and Harrison 1982; Massey 1984). This upheaval demanded a rejection of optimization theories of industrial localization in the manner of Weber (1909) and Isard (1956) and of simple decentralization theories based on wage differences (Borts 1960) or product cycles (Vernon 1966). Something more dramatic was up, and it meant rethinking the basics of industrial dynamics and their relation to places (Massey 1984), particularly the opening up of what Scott called "New Industrial Spaces" (1988b) and Michael Storper and I (1989) called "geographical industrialization."

This kind of pursuit led in three main directions. One was appreciating that the Japanese revolution in mass production was wiping out (and replacing) large swathes of heavy industry in North America and Europe (Kenney and Florida 1993; Sayer and Walker 1992). Another took up the question of the high-tech (electronics) revolution that had spawned the world's new leading industry and was spreading into almost every other domain of the economy and daily life (Morgan and Sayer 1988; Scott 1993; Saxenian 1994). A third was

a newfound appreciation of the productive power of spatial clustering of beavies of smaller firms in industrial districts (Becattini 1978; Storper and Scott 1988; Storper and Christopherson 1987).

At first the greatest play was given to the idea promulgated by Michael Piore and Charles Sabel (1984), based on their study of central Italy, that the key post-Fordist shift was to a system called "flexible specialization." But the most fruitful development was the rethinking of the whole process of spatial concentration, not simply as a replacement for Fordism but as a major force in the history of industrialization from the beginning (Marshall and Marshall 1881; Allen 1920; Sabel and Zeitlin 1985; Scranton 1997). Industrial clustering has been prominent not only in craft industries like jewelry and clock making, but recurred in steel and autos, petrochemicals, and food processing; came back with a vengeance in electronics and software; and even showed up in Japanese just-in-time production (Kenney and Florida 1993) and in spades with the industrial revolution in China of our time (Krugman 1995).

The analysis of spatial clustering brought back the other, relatively neglected side of Weber's classical location theory: agglomeration. The combination of neoclassical equilibrium analysis in economics, central place theory in geography, and the widespread decentralization of large Fordist factories in practice had led most economic geographers to neglect the topic of spatial clustering in the postwar era. By the 1970s, the study of industrial location had become obsessed with corporate decision theory and spatial organization (Dicken 1971; Hayter and Watts 1983; cf. Walker 1989). Meanwhile, most urbanists of the 1960s and 1970s, including urban geographers, had forgotten entirely about industry in the city. They shifted their sights to such themes as consumption and housing, politics and land development, and racial segregation and spatial inequality in cities (e.g., Harvey 1973; Castells 1977).

But not Allan Pred, who put out a series of studies of the economics of metropolitan growth from the mid-1960s through the 1970s. His project from the outset was "the formulation of a geographic location theory originat[ing] with the consideration of urbanization and industrialization . . . as interacting spatial processes" (1966 5, 12ff.; cf. Pred 1964, 1965).⁴ The starting point for Pred's approach was Weber's notion of agglomeration economies, which he took for granted (Weber 1909; Hoover 1948; Isard 1956). In brief, firms are drawn into the city because of the lower costs of shared infrastructure (ports, railway terminals, electricity, and buildings); aggregate costs of transport of goods are reduced by proximity of urban industries, whether it is between firms or to transshipment points; and employers benefit from sharing a large pool of labor, and one that is already disciplined and skilled in the industrial arts.

To the basic ground of agglomeration theory, Pred added that firms benefit

from the size of the urban market, or "threshold effects," of assembling enough buyers of specialized products (whether intermediate or final) and that these benefits are the greatest in the largest cities. As he noted, with the growing complexity of material inputs and the growing demand for a greater variety of (skilled) labor, the cost and threshold advantages of cities over dispersed locations were enhanced by advances in industrialization (1966, 44, 79). To this argument about rising productivity, he added that cities provide more and cheaper sources of bank capital (1966, 80).

Pred also applied the Keynesian idea of multiplier effects, or the circulation of money through the urban system. Such multipliers involved both capital investment and worker spending on consumer goods (Pred 1966, 30–32, 42–43; 1973, 191–93; 1980, 125–31). Key aspects of this feedback system were capital investment in transport and communications infrastructure to keep goods and information flowing toward the major centers; the proliferation of newspapers, advertisements, and other means of disseminating business information; and the building up of real estate and construction of the city itself (Pred 1980, 128; cf. Brechin 1999). In his discussion of multipliers, Pred rejected the basic/nonbasic industries approach popular at the time, realizing that markets and feedback loops could be both local and distant (1966, 30).

Finally, Pred employed the idea of circular and cumulative causation, which had been developed by Gunnar Myrdal (1957) to explain international inequalities. In this, labor and capital flow out of less developed regions into more advanced regions, helping the latter grow and stifling the former. Myrdal's approach, and similar work by Albert Hirschman (1958), went against the neoclassical orthodoxy that growth ought to spread outward from developed centers to underdeveloped peripheries (e.g., Borts and Stein 1964). Pred's innovation was to apply these ideas explicitly to metropolitan growth and city systems, as a way of explaining both urban concentration of economic activity and the relative stability of urban hierarchies once established (1966, 15, 26; 1973; 1980, 131–41).

Such agglomeration economies are still the foundation stones of any theory of urban concentration. But the literature on industrial districts since Pred's time has gone further in the analysis of the collective logic of spatial concentration. Of fundamental importance are external economies of many interacting firms, or increasing returns to scale for the whole district (Young 1928; Lampard 1955). Another key insight is the power of economies of scope, or the correct scale of capital equipment and production relative to market size (Panzar and Willig 1981). The analysis of such effects has been taken to a high level of formal modeling by economic geographers such as Scott (1988b, 1993) and Storper (2013) and by geographical economists such as Krugman (1995;

Fujita, Krugman, and Venables 1999). Nonetheless, Allan Pred understood very well the payoff to specialization among many firms, the process of vertical disintegration, and external economies as not just additive but multiplicative (e.g., Pred 1966, 14, 41, 61).

The elaboration of the theory of industrial clustering was the most significant advance in economic and urban geography of the 1980s and 1990s. Many layers of nuance were added to the basic model along the way. One is the importance of shared social relations or the implicit and explicit ways of doing things that characterize tightly knit industrial districts, which allow for efficient, unstructured interaction, mutual aid, and cooperation (Saxenian 1994; Storper 1997; Cooke and Morgan 1998). These social interactions feed into the dynamism of industrial districts brought about by concentration of expertise, collective problem solving, and learning by doing, and therein lies the strong impulse for innovation in clusters such as Silicon Valley electronics or Parisian fashion (Florida 1995; Cooke 2002; Gertler 2003; Scott 2005).

The worm had truly turned from the midcentury model of innovation carried out in corporate laboratories (Schumpeter 1942). It was accompanied by a mad rush by cities, states, and countries to build research parks to try to capture the Silicon Valley magic—most of which failed because they never grasped the key ideas of economies of specialization (the need for many complementary firms), innovation as a collective problem solving (not just science coming out of university labs), or historical trajectories (the deep history of most industrial districts, including Silicon Valley) (Saxenian 1985; Massey, Quintas, and Wield 1992).

Nevertheless, what was regarded by industrial geographers as a great breakthrough into the realms of innovation had been a central concern of Allan Pred much earlier. Indeed, Pred saw cities as the principal loci of innovation, for much the same reasons as in industrial districts: the power of spatial concentration. Moreover, for Pred, as a student of the nineteenth century, industrial geography and urbanization were the same thing seen from different angles—the lesson that postwar economic geography forgot but which was rediscovered by urban economic geographers such as Scott (1988a, 1993), Storper (1997, 2013), and myself (Storper and Walker 1989).

Information and Innovation in Cities

Today we hear a great deal about the knowledge economy, the digital economy, the cognitive economy, and other variations on the post-Fordist theme that there has been a historic transition from the era of the mass production of goods to one of the production (and consumption) of intangibles, whether in

the form of software, entertainments, or designs. This has led to studies of “cultural economic geography” (Sheppard and Barnes 2003), the “cultural economy of cities” (Scott 2000), and, most famously, the “creative class” as the pivot of urban revival (Florida 2002, 2005).

This view of things is not entirely new, however. The pioneering study of knowledge in economic growth was by Fritz Machlup (1962), while Daniel Bell (1973) declared the coming of the “post-industrial society” a decade later. The cybernetic revolution was in the air in the 1960s, long before the age of the Internet, and it had an enormous influence on thinking about information, systems, feedback, and much more. Allan Pred was a keen student of the era and took it all in. Then he went looking for the role of information in American history and the growth of cities, particularly in the sequential studies, *Urban Growth and the Circulation of Information: The United States System of Cities, 1790–1840* (1973) and *Urban Growth and City-Systems in the United States, 1840–1860* (1980).

What Pred discovered was that the urban-industrial revolution of the nineteenth century was not simply a matter of the production and exchange of goods but was necessarily accompanied by—and propelled by—the circulation of information (Pred 1973, 1980). Information was essential to the conduct of all trade and production; indeed, it was the nervous system of all enterprise, the brains of modern business. So the capitalists of the antebellum United States did not just set up factories and warehouses; they established newspapers by the thousands, set up a national post and package delivery network, and strung a million miles of telegraph lines (cf. Henkin 1998, 2006). They had to communicate, and what they were talking about was prices, orders, and payments, not to mention market prospects and competitors, and this information flowed from city to city around the country. Talk about the space of flows!

In Pred's model of city systems, the networks and flows between cities are not simply about trade and movement of goods but are fundamentally about information, such as demand, investment, and business conditions (1973, 1980).⁵ He also knew that long before modern electronics revolutionized communications via the telephone, computers, and the Internet, earlier networks of merchant contacts, postal routes, newspapers, and, later, telegraph lines had produced a time-space compression as radical as anything in our lifetimes (cf. Marx 1964; Kern 1983). If, as Alfred Marshall has said, “the secrets of industry are in the air” in industrial districts, Pred went further (and he had read his Marshall) in saying that the secrets of business were singing along the wires, spreading a wealth of economic knowledge from city to city in nineteenth-century America (Pred 1973, chaps. 2, 3, 5; 1980, 145–65). The circulation of information is, moreover, sharply biased, not just toward cities in general, but

toward the biggest commercial and industrial centers; such bias is important, for example, in explaining the rise of New York to supremacy among U.S. cities in the early 1800s (Pred 1973, 16–19).⁶

Information alone is not enough, of course; the question is to what use is it put? Trade and marketing are one purpose, management another (Hoover and Vernon 1959; Beniger 1986), banking yet another (Hamelink 1983). But information is the raw material of knowledge, and it is knowledge that is the crucial input to everything else in the system of production and circulation of goods and services. Moreover, the generation of new knowledge is critical to the process of economic innovation that is at the heart of modern capitalist growth. Pred was centrally concerned with the role of innovation in urban growth dynamics, whether single metropolitan areas or systems of cities (1966, 1973, 1977, 1980). He was steeped in the postwar revival of the economics of technological change brought about by the work of Joseph Schumpeter (1939, 1942), Robert Solow (1957), Nathan Rosenberg (1963), and Gary Becker (1964).

Pred realized that a key driver of uneven development was the process of innovation and that large cities were the biggest centers of innovation (e.g. 1966, chap. 4). This was quite the opposite of the conventional theory of “innovation diffusion” popular at the time (e.g., Hagerstrand 1953; Berry 1972; cf. Pred 1973, 228ff). A quite striking discovery of Pred’s was that even when new information and innovations appeared in peripheral areas or towns down the urban hierarchy, they tended to filter up to the biggest metropolitan areas, reinforcing their advantages in the race for growth and solidifying the urban hierarchy (Pred 1973, 236, 264). In other words, cities do not always generate the newest and best ideas, but they do almost always capture them eventually. Cities not only enhance creativity, they are the chief sources of demand for new technology (Pred 1973, 90).

These ideas speak directly to recent debates over innovation in cities, especially under the rubric of “creativity.” Richard Florida (2002, 2005) says that urban growth flows from the activities of the “creative class,” mostly professional, technical, and cultural workers. But this formulation is one-sided.⁷ Skilled and talented people move to cities because that is where the jobs and the economic action are to be found. As Pred notes, “Urban industries and their multiplier effects created the employment opportunities that successively attracted . . . migrants to infant metropolises, and eventually led to additional manufacturing growth” (1966, 39). Of course, the influx of workers helps drive the next round of growth, which attracts more people, and so on, but this is a mutually reinforcing spiral based fundamentally on the actions of industry: the clustering of firms, continued capital investment, and external economies of spatial concentration (Scott 2008; Storper 2013).

A central idea of the urban economists of Pred’s early years was face-to-face communication (Hoover and Vernon 1959). Urban innovation derives from the way information flows along “the web of interpersonal communication” that flourishes in cities and especially large metropolitan centers (Pred 1966, 127–31). As Pred puts it, “The multiplication of interactions among the growing number of individuals engaged in the manufacturing and tertiary sectors enhances the possibilities of technological improvements and inventions . . . , enlarges the likelihood of the adoption of more efficient managerial and financial institutions, increases the speed with which locally originating ideas are disseminated, and eases the diffusion of skills and knowledge brought in by migrants from other areas” (1966, 28). Recent literature about innovation and creativity in cities goes further than Pred in its analysis of the richness of social relations, problem solving, and learning-by-doing within industrial districts (Saxenian 1994; Storper 1997; Cooke 2002). But not surprisingly, the central idea of face-to-face communications has been revived by economic geographers (Storper and Venables 2004; Storper 2013).

In recent years, the evolving social division of labor and advances in digital technology—not to mention the cultural turn in social sciences—has led economic geographers to pay closer attention to matters of culture, mental labor, and creativity in the dynamics of urban growth (e.g., Lee and Wills 1997; Scott 2000, 2005, 2008; Currid 2007). Allan Pred’s later work tracked such changes and has much to offer on the cultural economy of the city, but I leave consideration of that to other contributors to this volume.

Conclusion

In sum, Allan Pred had a great deal to say in his early work, from 1965 to 1980, about three of the most important dimensions of the modern space economy: the leading role of large cities in capitalist development, the inexorable spatial clustering of industry and management, and the dynamics of information and innovation in the modern economy. Crucially, Pred helped overturn previously dominant ideas about cities and hinterlands, networks and hierarchies of cities, urban industrialization and clustering, and flows of information among cities and people within cities. His theoretical exercises and empirical research are still valuable models of rigor and sources of insight for urban and economic geographers today.

While some of Pred’s ideas have been superseded by more elaborate studies of external economies, industrial districts, and learning regions, among other things, his conclusions are sometimes still more pertinent than those of later writers. First, city systems and hierarchies are older, more extensive and more

entrenched than the recent fashion for "global cities" and "spatial fixes" would lead one to believe. Second, urban growth is about not just industrial districts but the dynamics of urban agglomerations as a whole, and it rests not just on external economies but on spatial inequality in labor and capital flows. Third, the biased flow of information is crucial to big cities' dominance, and creativity is only one element of the forces at work spurring innovation in cities. Most of all, Pred showed that cities have been at the heart of the geography of capitalist growth for the last two hundred years, and in that regard there is less new under the sun than our contemporaries may think.

NOTES

1. Personally, I learned a great deal from Pred as a young professor at Berkeley, and it enabled me to contribute to the New Industrial Geography of the 1980s and 1990s (e.g., Storper and Walker 1989; Sayer and Walker 1992). I should also mention another colleague, James Vance (e.g., Vance 1970), whom Pred (1966) pays tribute to as well.
2. Allan Pred was well aware of this interweaving of scales, and he began calling his undergraduate course "The Local and the Global" twenty-five years ago.
3. Oddly, Allen Scott's efforts to widen the domain of urban activities to all "cultural-cognitive" functions (2000, 2008) forgets completely the force of finance and management (business services) in the buildup of the biggest cities.
4. What is striking in reading the introduction to Pred (1966) is how he stood at the threshold of systematic urban economics, with remarkably little to go on in the literature up until then.
5. At the time Pred was writing, there was a flurry of interest in matters of communication and networks, following from World War II and the birth of computing (cf. Meier 1962; Olsson 1965).
6. Cf. Zook 2005 on similar biases of the global use of the Internet.
7. Florida's ideas grew directly out of the advances in research of the 1990s, which lost their subtlety in being distilled into the punch bowl of policy pronouncements that he likes to stir. Florida's theory is a kind of spatial reworking of Becker's (1964) "human capital" theory, but while the rising capacity of labor is a key facet of technological advance, it must be put into the full (spatial) context of capital, companies, and cities, not to mention the characteristics of the technologies themselves.

REFERENCES

- Allen, George. 1920. *The Industrial Development of Birmingham and the Black Country, 1860-1927*. London: Allen and Unwin.
- Amin, Ash, ed. 1994. *Post-Fordism: A Reader*. Oxford: Blackwell.
- Amin, Ash, and Nigel Thrift. 1992. "Neo-Marshallian Nodes in Global Networks." *International Journal of Urban and Regional Research* 16 (4): 571-87.
- Becattini, Giacomo. 1978. "The Development of Light Industry in Tuscany: An Interpretation." *Economic Notes* 2 (3): 107-23.
- Becker, Gary. 1964. *Human Capital*. New York: National Bureau of Economic Research.
- Bell, Daniel. 1973. *The Coming of Post-Industrial Society*. New York: Basic Books.
- Beniger, James. 1986. *The Control Revolution: Technological and Economic Origins of the Information Society*. Cambridge, Mass.: Harvard University Press.
- Berry, Brian. 1961. "City Size Distributions and Economic Development." *Economic Development and Cultural Change* 9 (4): 573-87.
- . 1964. "Cities as Systems within Systems of Cities." *Papers of the Regional Science Association* 13 (1): 147-63.
- . 1967. *Geography of Market Centers and Retail Distribution*. Englewood Cliffs, N.J.: Prentice-Hall.
- . 1972. "Hierarchical Diffusion: The Basis of Developmental Filtering and Spread in a System of Growth Centers." In *Growth Centers in Regional Economic Development*, edited by Niles M. Hansen, 108-38. New York: Free Press.
- Berry, Brian, and F. E. Horton. 1970. *Geographic Perspectives on Urban Systems*. Englewood Cliffs, N.J.: Prentice-Hall.
- Bluestone, Barry, and Bennett Harrison. 1982. *The Deindustrialization of America*. New York: Basic Books.
- Borts, George. 1960. "The Equalization of Returns and Regional Economic Growth." *American Economic Review* 50 (3): 319-47.
- Borts, George, and Jerome Stein. 1964. *Economic Growth in a Free Market*. New York: Columbia University Press.
- Bourne, Larry, and James Simmons, eds. 1978. *Systems of Cities*. New York: Oxford University Press.
- Braudel, Fernand. 1982. *The Wheels of Commerce*. Translated by Sian Reynolds. New York: Harper and Row.
- Brechin, Gray. 1999. *Imperial San Francisco: Urban Power, Earthly Ruin*. Berkeley, Calif.: University of California Press.
- Castells, Manuel. 1977. *The Urban Question*. London: Edward Arnold.
- . 1989. *The Informational City*. Cambridge, Mass.: Basil Blackwell.
- . 1996. *The Rise of the Network Society*. 3 vols. Oxford: Blackwell.
- Christaller, Walter. 1933. *Die zentralen Orte in Süddeutschland*. Jena.
- . 1966. *Central Places in Southern Germany*. Translated by Carlisle Baskin. Englewood Cliffs, N.J.: Prentice-Hall. Translation of Christaller 1933.
- Coe, Neil, Peter Dicken, and Martin Hess. 2008. "Global Production Networks: Realizing the Potential." *Journal of Economic Geography* 8 (3): 271-95.
- Cooke, Philip. 2002. *Knowledge Economies: Clusters, Learning and Cooperative Advantage*. London: Routledge.
- Cooke, Philip, and Kevin Morgan. 1998. *The Associational Economy: Firms, Regions and Innovation*. Oxford: Oxford University Press.

- Cronon, William. 1991. *Nature's Metropolis: Chicago and the Great West*. Chicago: W. W. Norton.
- Currid, Elizabeth. 2007. *The Warhol Economy: How Fashion, Art and Music Drive New York City*. Princeton, N.J.: Princeton University Press.
- DeVries, Jan. 1984. *European Urbanization, 1500-1800*. Cambridge, Mass.: Harvard University Press.
- Dicken, Peter. 1971. "Some Aspects of Decision-Making Behavior in Business Organizations." *Economic Geography* 47 (3): 426-37.
- Fields, Gary. 2004. *Territories of Profit: Communications, Capitalist Development and the Innovative Enterprises of G. F. Swift and Dell Computer*. Stanford, Calif.: Stanford University Press.
- Florida, Richard. 1995. "Towards the Learning Region." *Futures* 27 (5): 527-36.
- . 2002. *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*. New York: Basic Books.
- . 2005. *Cities and the Creative Class*. New York: Routledge.
- Friedmann, John, and Goetz Wolff. 1982. "World City Formation." *International Journal of Urban and Regional Research* 6 (3): 309-44.
- Fujita, Masahisa, Paul Krugman, and Anthony Venables. 1999. *Cities, Regions and International Trade*. Cambridge, Mass.: MIT Press.
- Gereffi, Gary, and Miguel Korzeniewicz, eds. 1994. *Commodity Chains and Global Capitalism*. Westport, Conn.: Praeger.
- Gertler, Meric. 2003. "Tacit Knowledge and the Economic Geography of Context; or, The Indefinable Tastiness of Being (There)." *Journal of Economic Geography* 3 (1): 75-99.
- Hagerstrand, Torsten. 1953. *Innovationsförloppet ur korologisk Synpunkt*. Lund: Gleerupska Univ.-Bokhandeln. Translated by Allan Pred as *Innovation Diffusion as a Spatial Process* (Chicago: University of Chicago Press, 1968).
- Haig, Robert, ed. 1927. *Regional Survey of New York and Its Environs*. Vol. 1, *Major Economic Factors in Metropolitan Growth and Arrangement*. New York: Regional Plan Association.
- Hamelink, Cees. 1983. *Finance and Information*. Norwood, N.J.: Ablex.
- Harvey, David. 1973. *Social Justice and the City*. Baltimore: Johns Hopkins Press.
- Hayter, Roger, and H. D. Watts. 1983. "The Geography of Enterprise: A Reappraisal." *Progress in Human Geography* 7 (2): 157-81.
- Henkin, David. 1998. *City Reading: Written Words and Public Spaces in Antebellum New York*. New York: Columbia University Press.
- . 2006. *The Postal Age: The Emergence of Modern Communications in Nineteenth-Century America*. Chicago: University of Chicago Press.
- Hirschman, Albert. 1958. *The Strategy of Economic Development*. New Haven, Conn.: Yale University Press.
- Hoover, Edgar. 1937. *Location Theory and the Shoe and Leather Industries*. Cambridge, Mass.: Harvard University Press.
- . 1948. *The Location of Economic Activity*. New York: McGraw-Hill.
- Hoover, Edgar, and Raymond Vernon. 1959. *Anatomy of a Metropolis*. Cambridge, Mass.: Harvard University Press.
- Hynes, Stephen. 1972. "The Multinational Corporation and the Law of Uneven Development." In *Economics and World Order*, edited by J. Bhagwati, 113-40. New York: Free Press.
- Innis, Harold. 1933. *Problems of Staple Production in Canada*. Toronto: Ryerson Press.
- Isard, Walter. 1956. *Location and Space Economy*. New York: John Wiley and Sons.
- Jacobs, Jane. 1969. *The Economy of Cities*. New York: Random House.
- Kenney, Martin, and Richard Florida. 1993. *Beyond Mass Production: The Japanese System and Its Transfer to the United States*. New York: Oxford University Press.
- Kern, Stephen. 1983. *The Culture of Time and Space, 1880-1918*. Cambridge, Mass.: Harvard University Press.
- King, Anthony. 1990. *Global Cities: Post-Imperialism and the Internationalisation of London*. London: Routledge.
- Krugman, Paul. 1995. *Development, Geography and Economic Theory*. Cambridge, Mass.: MIT Press.
- Lampard, Eric. 1955. "The History of Cities in Economically Advanced Areas." *Economic Development and Cultural Change* 3 (2): 81-136.
- Lee, Roger, and Jane Wills, eds. 1997. *Geographies of Economies*. London: Edward Arnold.
- Lösch, August. 1940. *Die Raumliche Ordnung der Wirtschaft*. Jena: Fischer. Translated by William Woglom as *The Economics of Location* (New Haven, Conn.: Yale University Press, 1954).
- Machlup, Fritz. 1962. *The Production and Distribution of Knowledge in the United States*. Princeton, N.J.: Princeton University Press.
- Madden, Carl. 1956. "On Some Indications of Stability in the Growth of Cities in the United States." *Economic Development and Cultural Change* 4 (3): 236-52.
- Marshall, Alfred, and Mary Paley Marshall. 1881. *The Economics of Industry*. London: Macmillan.
- Marx, Leo. 1964. *The Machine in the Garden: Technology and the Pastoral Ideal in America*. New York: Oxford University Press.
- Massey, Doreen. 1984. *Spatial Divisions of Labor: Social Structures and the Geography of Production*. London: Macmillan.
- . 1994. *Space, Place and Gender*. Minneapolis: University of Minnesota Press.
- Massey, Doreen, Paul Quintas, and David Wield. 1992. *High-Tech Fantasies: Science Parks in Society, Science and Space*. London: Routledge.
- Meier, Richard. 1962. *A Communications Theory of Urban Growth*. Cambridge, Mass.: MIT Press.
- Morgan, Kevin, and Andrew Sayer. 1988. *Microcircuits of Capital*. Cambridge: Polity Press.
- Myrdal, Gunnar. 1957. *Economic Theory and the Underdeveloped Regions*. London: Duckworth.

- O'Brien, Richard. 1992. *Global Financial Integration: The End of Geography*. London: Pinter.
- Ohmae, Ken-Ichi. 1995. *The End of the National State: The Rise of Regional Economies*. London: HarperCollins.
- Olsson, Gunnar. 1965. *Distance and Human Interaction*. Philadelphia: Regional Science Research Institute.
- Panzar, John C., and Robert D. Willig. 1981. "Economies of Scope." *American Economic Review* 71 (2): 268-72.
- Perloff, Harvey, Eric Lampard, and Richard Muth. 1960. *Regions, Resources, and Economic Growth*. Baltimore: Johns Hopkins University Press.
- Piore, Michael, and Charles Sabel. 1984. *The Second Industrial Divide*. New York: Basic Books.
- Pred, Allan. 1964. "The Intrametropolitan Location of American Manufacturing." *Annals of the Association of American Geographers* 54 (2): 165-80.
- . 1965. "The Concentration of High-Value-Added Manufacturing." *Economic Geography* 41 (2): 108-32.
- . 1966. *The Spatial Dynamics of Urban Growth in the United States, 1800-1914*. Cambridge, Mass.: MIT Press.
- . 1973. *Urban Growth and the Circulation of Information: The United States System of Cities, 1790-1840*. Cambridge, Mass.: Harvard University Press.
- . 1977. *City-Systems in Advanced Economies*. London: Hutchinson.
- . 1980. *Urban Growth and City-Systems in the United States, 1840-1860*. Cambridge, Mass.: Harvard University Press.
- . 1984. "Structuration, Biography Formation and Knowledge: Observations on Port Growth during the Late Mercantile Period." *Society and Space* 2 (3): 251-75.
- Rosenberg, Nathan. 1963. "Technological Change in the Machine Tool Industry, 1840-1910." *Journal of Economic History* 23 (4): 420-45.
- Sabel, Charles, and Jonathon Zeitlin. 1985. "Historical Alternatives to Mass Production: Politics, Markets and Technology in Nineteenth-Century Industrialization." *Past and Present* 108: 133-76.
- Sassen, Saskia. (1991) 2001. *The Global City: New York, London, Tokyo*. Princeton, N.J.: Princeton University Press. Citations refer to the second edition.
- Saxenian, AnnaLee. 1985. "Let Them Eat Chips." *Society and Space* 3 (1): 121-27.
- . 1994. *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Cambridge, Mass.: Harvard University Press.
- Sayer, Andrew, and Richard Walker. 1992. *The New Social Economy: Reworking the Division of Labor*. Cambridge, Mass.: Basil Blackwell.
- Schumpeter, Joseph. 1939. *Business Cycles*. New York: McGraw-Hill.
- . 1942. *Capitalism, Socialism, and Democracy*. New York: Harper and Row.
- Scott, Allen. 1988a. *Metropolis: From the Division of Labor to Urban Form*. Berkeley: University of California Press.
- . 1988b. *New Industrial Spaces*. London: Pion.
- . 1993. *Technopolis: High Technology Industry and Regional Development in Southern California*. Los Angeles: University of California Press.
- . 1998. *Regions and the World Economy: The Coming Shape of Global Production, Competition, and Political Order*. Oxford: Oxford University Press.
- . 2000. *The Cultural Economy of Cities*. Thousand Oaks, Calif.: Sage.
- . 2005. *On Hollywood*. Princeton, N.J.: Princeton University Press.
- . 2008. *Social Economy of the Metropolis: Cognitive-Cultural Capitalism and the Global Resurgence of Cities*. Oxford: Oxford University Press.
- Scranton, Philip. 1997. *Endless Novelty: Specialty Production and American Industrialization, 1865-1925*. Princeton, N.J.: Princeton University Press.
- Sheppard, Eric, and Trevor Barnes, eds. 2003. *A Companion to Economic Geography*. Malden, Mass.: Blackwell.
- Solow, Robert. 1957. "Technical Change and the Aggregate Production Function." *Review of Economics and Statistics* 39 (3): 312-20.
- Storper, Michael. 1997. *The Regional World*. New York: Guilford Press.
- . 2013. *The Keys to the City*. Princeton, N.J.: Princeton University Press.
- Storper, Michael, and Susan Christopherson. 1987. "Flexible Specialization and Regional Industrial Agglomerations: The Case of the U.S. Motion Picture Industry." *Annals of the Association of American Geographers* 77 (1): 104-17.
- Storper, Michael, and Allen Scott. 1988. "The Geographical Foundations and Social Regulation of Flexible Production Complexes." In *Territory and Social Reproduction*, edited by Jennifer Wolch and Michael Dear, 21-40. Boston: Allen and Unwin.
- Storper, Michael, and Anthony Venables. 2004. "Buzz: Face-to-Face Contact and the Urban Economy." *Journal of Economic Geography* 4 (4): 351-70.
- Storper, Michael, and Richard Walker. 1989. *The Capitalist Imperative: Territory, Technology and Industrial Growth*. Cambridge, Mass.: Basil Blackwell.
- Swyngedouw, Eric. 1997. "Neither Global nor Local: 'Glocalization' and the Politics of Scale." In *Spaces of Globalization*, edited by Kevin Cox, 137-66. New York: Guilford Press.
- Vance, James. 1970. *The Merchant's World*. Englewood Cliffs, N.J.: Prentice-Hall.
- Vernon, Raymond. 1966. "International Investment and International Trade in the Product Cycle." *Quarterly Journal of Economics* 80 (2): 190-207.
- Walker, Richard. 1989. "A Requiem for Corporate Geography: New Directions in Industrial Organization, the Production of Place and Uneven Development." *Geografisker Annaler: Series B* 71 (1): 43-68.
- Weber, Alfred. 1909. *Über den Standorts der Industrien*. Tübingen: Mohr. Translated by C. J. Friedrich as *Theory of the Location of Industries* (Chicago: University of Chicago Press, 1929).
- Young, Allan. 1928. "Increasing Returns and Economic Progress." *Economic Journal* 38 (152): 527-42.
- Zipf, George. 1941. *National Unity and Disunity*. Bloomington, Ind.: Principia Press.
- Zook, Matthew. 2005. *The Geography of the Internet Industry: Venture Capital, Dot-Coms and Local Knowledge*. Malden, Mass.: Blackwell.

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Spaces of Danger

CULTURE AND POWER IN THE EVERYDAY

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