

## The city in 2050: A kaleidoscopic perspective<sup>☆,☆☆</sup>



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### A B S T R A C T

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This paper emphasizes the continuing centrality of inertia in shaping future cities – “the past as prologue.” It first traces the trajectory of urbanization as it relates to the dominant mode of transportation and economic activity from the eighteenth century onward. A quintessential outcome is increasingly large urban areas – a world of extensive urban agglomerations that incorporate smaller places in the wake of expansion. Within these megalopolises, a high level of spatial differentiation is anticipated such as to incorporate (i) contemporary and new forms of merchandising, production, and quaternary activity; (ii) numerous special-purpose districts geared toward consumption, entertainment, and other destination-type activities; and (iii) former CBDs that have been either reworked or discarded. Taken together, these lead to functional and spatial configurations that are highly irregular compared to earlier times. Four ongoing issues are highlighted – (i) Transportation needs, and connectivity more generally; (ii) Regional planning in the context of local governance that is highly fragmented; (iii) Vulnerability to sea/river level rises and other global warming effects; and (iv) Academic inquiry, especially as it relates to globalization impacts and the city’s internal structure.

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### Introduction

Just as Flash Gordon and Buck Rogers appeared in the late 1920s, early 1930s to tell us about the world of the future, so have Regional Science sessions on the City in 2050, albeit with somewhat greater modesty in their time horizon. Nevertheless, it is rare that social scientists have an opportunity to talk about what might be, rather than what is or has been.

In this context, why is this paper titled as “A Kaleidoscopic Perspective;” in what way is that futuristic? My response is that a kaleidoscope, when moved or turned, elicits vastly different patterns but the pieces that produce them remain the same – they are simply re-arranged. Hence, I also might have used a title such as “The Past as Prologue,” or more prosaically, “Inertia Effects and Agglomeration Economies Live On.” What this means, of course, is

that the city of the future may more closely resemble the city of the present and past than many would imagine, or hope for. This is bracketed, however, in that my reference point is the North American city – lending applicability therefore to Europe but less so to cities of the *Global South*.

The theme is elaborated in five sections. Initial focus is on the city as a prototype, and the effect upon that of transportation shifts – River to Rail to Rubber to Air to Vapor. Economic shifts also play a role, especially those related to the Fordist/post-Fordist transition and globalization. Second, I look inside the city, focusing on tertiary activity, special-use districts, local government, and the spatial arrangements that emerge. In this exegesis, surprisingly, we encounter an old friend, Central Place Theory. Third, also within the city, attention is given to the range of commercial activities and *revitalization* of central cities. Fourth, the city as a Center of Innovation is given scrutiny, but seen here as a phase rather than permanent. Finally, attention is given to the urban collage of today, 2050, and specific issues that could alter current trends; namely, Transportation Shifts, Urban Governance, and Sea-Level Rise related to Global Warming.

### The city *per se*: transportation, economic eras, and inertia

Several schemata link urban formation, urban form, and transportation mode. A US example is Borchert’s (1967) epochs of the Sail-Wagon, 1790–1830; Iron Horse, 1830–1870; Steel Rail, 1870–

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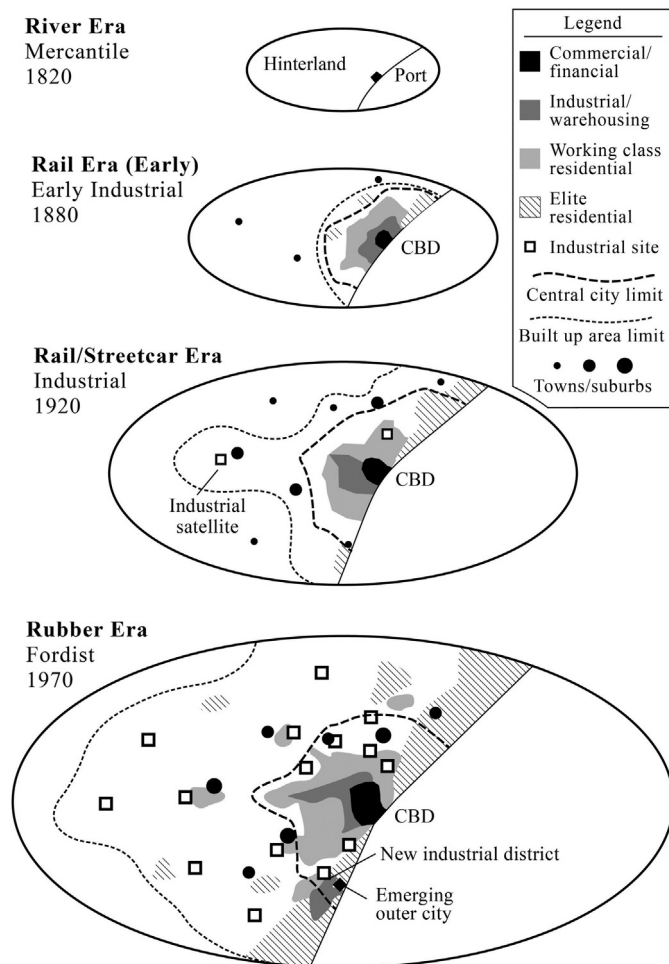


Fig. 1. The evolution of urban form: A transportation and economic era perspective.

1920; and Auto-Air-Amenity, 1920–present. For a Colonial setting, Vance (1970) and Taaffe, Morrill, and Gould (1963) propose stage-formulations that link transportation with urban development. Further, since the transportation innovations emphasized by these constructs are mirrors of society overall, there is a correspondence with economic eras and change, which in turn impact the form and function of the city. Hence, Johnston (1982, 1984) links transportation epochs to Mercantile Capitalism, Industrial Capitalism, and Late-Capitalism.

The impact of transportation and economic-era shifts on urban form is illustrated by Fig. 1. In the River/Mercantile Capitalism era, water is the major form of long-distance transportation and, therefore, critical to urban location; intra-urban form is highly contained; and urban activities are intermixed with one another, including co-location of residence and business. As transportation technologies and economic regimes evolve, the internal form of the city becomes spatially differentiated. Hence, discrete districts emerge, shown in Fig. 1 as the CBD, Industrial developments that disperse outward over time, Lower Income areas that eventually become unkempt and run-down, Middle-Class and Elite neighborhoods, suburbs, and satellite cities. An important distinction throughout is that rail-type transportation engenders nodal development, thus reinforcing, for example, the CBD and industrial clusters; whereas auto-type transport induces spread and dilutes the economies, and/or centripetal forces, associated with nodal forms of spatial organization (Knox & McCarthy, 2005: 139–169).

How does this relate to 2050? One factor is inertia such that successive developments tend to build on what is already there. Hence, among US Metropolitan Areas with one million or more population in 2010, virtually all are located on major waterways, and given inertia effects, these same urban areas are likely to be dominant in 2050.

Simultaneously, there also are forces that shift the order of importance. In the early 1800s, for example, New York gained dominance over Portland Maine, Boston, Providence, Hartford, Philadelphia, and Baltimore – all of which had similar natural advantages such as sheltered harbors and nearby waterfalls, then the major source of power for manufacturing.<sup>1</sup> This is often attributed to the Erie Canal, completed in 1825, which connected New York City to the Great Lakes and US interior (Association of American Geographers, nd). Less dramatic but similar is Seattle's ascent over Bellingham and Tacoma Washington in the late 1800s when chosen as the western hub of the Great Northern Railway (Bellingham Centennial Celebration, 2012; GN History, nd; Wikipedia, nd).

Another category of change is new urban forms made possible by technological advancement. Examples include Las Vega, Phoenix, and Salt Lake City – which could herald an alternative scenario for 2050, or at least a variant.

More currently, the Air phase has distinguished cities in terms of “Global Connectivity.” Within the US the top ten (mid-2000s) are, sequentially, New York, Los Angeles, Chicago, San Francisco, Atlanta, Miami, Washington, Dallas, Boston, and Houston (Kaplan, Wheeler, & Holloway, 2009: 115). The impact of Fiber Optic links remains to be seen, but differentiation is certain. Atlanta in 2000, for example, was most connected to Washington (25), Dallas-Ft Worth (17), Miami (11), and Charlotte (10); and it ranked sixth in the US overall, after Chicago, Washington, Dallas, New York, and Los Angeles (Kaplan et al., 2009: 127–128).

I would not conclude, however, that Air and/or Fiber Optic connectivity will engender long-term enrichment, a two-century-later parallel to the Erie Canal. Instead, given their lack of place fixity, it is more likely that connectivity will mirror the urban hierarchy or aspects thereof; i.e., connectivity is derivative of other forces.<sup>2</sup>

Globalization, on the other hand, represents an economic force of significant magnitude, akin perhaps to the Fordist/post-Fordist eras that spanned the twentieth century. Hence, the AT Kearney Global Cities Index 2012 (Hales & Pena, 2012) notes that “Washington, New York, and Chicago ... are becoming more important geopolitically than the United States as a Country” (p. 8); that the top twenty such cities include New York (1), Los Angeles (6), Chicago (7), Washington (10), Boston (15), and San Francisco (17); but that “Beijing and Shanghai may rival [today's leading cities] in 10–20 years” (p. 1). Moreover, globalization exemplifies an extension of the transportation-era framework in Fig. 1 wherein, carried a step further, global strength is facilitated by air and digital-connections – i.e., the “air” and “vapor” eras.

Shifting to a more local scale, Fig. 2 shows cities from Wheeling West Virginia to Indianapolis Indiana which appear on maps of the National Road, the major east-west thoroughfare of the early 1800s,

<sup>1</sup> Regarding these natural advantages and the link between transportation epochs and economic development, Gottmann (1957: 192; 1961: 138, 139) describes the segue between Mercantile and Industrial Capitalism as “when the main interest shifted ‘from the wharf to the waterfall.’”

<sup>2</sup> Insight on fiber optic systems and the urban system are provided by O’Kelly, Kim, and Kim (2006) and Wheeler and O’Kelly (1999). These include descriptions of network components, their role in providing connectivity, but also, urban rankings in terms of reliability and accessibility.

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