Nature and the public: urban ecology and the politics of transportation in progressive - Era Chicago

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Abstract
This article argues that the model of urban ecology, as was formulated by Burgess, and McKenzie Park, comes from a uniquely local political context, in a city that had been the site of years of intense political agitation for reform. It shows how the specific model development will, in turn, used to intervene in this kind of "social laboratory of the nation ", to the extent that its principles will help identify priorities and dynamics of public policy Chicago in the decades following its publication.

Key words
Burgess, Park, McKenzie, progressive - Era Chicago, Georg Leidenberger, urban ecology.

Resumen
Este artículo sostiene que el modelo de la ecología urbana, tal y como fuera formulado por Burgess, Park y McKenzie, surge de un contexto político específicamente local, en una ciudad que había sido el lugar de años de intensa agitación política de reforma. Se muestra cómo el específico desarrollo del modelo será, a su vez, utilizado para intervenir en esa suerte de "laboratorio social de la nación", en la medida en que sus postulados van a contribuir a determinar las prioridades y dinámicas de la política pública de Chicago en las décadas siguientes a su publicación.

Palabras clave
Burgess, Park, McKenzie, era progresista de Chicago, Georg Leidenberger, ecología urbana.

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Este artículo, que hemos querido publicar en su versión original en idioma inglés, sostiene que el modelo de la ecología urbana, tal y como fuera formulado por Burgess, Park y McKenzie, surge de un contexto político específicamente local, en una ciudad que había sido el lugar de años de intensa agitación política de reforma.

Se muestra cómo el particular desarrollo del modelo será, a su vez, utilizado para intervenir en esa suerte de "laboratorio social de la nación", en la medida en que sus postulados van a contribuir a determinar las prioridades y dinámicas de la política pública de Chicago en las décadas siguientes a su publicación.

El Profesor Leidenberger argumenta que el intento de los ecologistas urbanos para poner el transporte y otros servicios de utilidad pública fuera de lo político y dentro del ámbito de las "tendencias naturales", debe ser visto como una reacción a una intensa controversia existente sobre el transporte urbano en la era "progresista" de Chicago.

Afiirma que la construcción de tales modelos es consistente a un cambio de postura de los investigadores, posiblemente conquistados por el sesgo ideológico y el prestigio europeo de las enseñanzas de G. Simmel.

Este sesgo apolítico y ateórico que es asumido por la ecología urbana refleja un cambio general en la cultura política de la ciudad, tendiente a neutralizar la discusión los alcances de la intervención del Estado en la sociedad, sobre la naturaleza de la participación política y la representación, hacia una posición funcionalista.

Tales sociólogos, muchos de ellos formados en el seno del movimiento progresista, al poner entre paréntesis sus compromisos políticos, tratando de justificar su paso en el encuadre de la adopción de una perspectiva científica que quiere ser más formal, se convierten, de hecho, en activistas abiertamente hostiles al movimiento de reforma urbana.

En este artículo, en resumen, se pone de relieve aquello que los autores de la ecología urbana desearon excluir desde sus consideraciones disciplinarias: las políticas urbanas.
Research result

The sociological models on urban development proposed by the Chicago School have been highly influential in urban studies, not only in the U.S. but also in Latin America. This article argues that the model of urban ecology, as formulated by Walter Burgess, Robert Park and Robert McKenzie, grew out of a specific local political context and, in turn, influenced the priorities and dynamics of Chicago's public policy in the decades following its publication. Urban ecology was first published and promoted during the 1910s, at the end of the period I treated in my work on the history of transportation politics in Chicago (1). It has always intrigued me that such an apolitical perspective on urban development emerged in a city that had been the site of years of intense political reform agitation. Moreover, I was struck that public transportation figured as centrally in the urban ecological model as it had in Chicago politics during the previous twenty years. In this article, then, I argue that urban ecologists’ attempt to place transportation and other public utilities outside of the political and into the natural realm ought to be seen as a reaction to the intense controversy over urban transportation in progressive-era Chicago. Moreover, urban ecology’s apolitical and atheoretical posture reflected a general shift in the city, and country’s political culture: a turn away from an intense agitation over the extent of state-intervention in society, over the nature of political participation and representation toward a politics that adopted a functionalist, practical and pluralist stand. This article, then, highlights what the authors of urban ecology wished to exclude from consideration: urban politics.

The modern discipline of sociology grew out of a ferment of political reform agitation in the Midwest metropolis. Characterizing Chicago as the "nation’s social laboratory," early sociologists of the University of Chicago, such as Albion Small, Charles Zueblin and Edith Abbott, cooperated closely with settlement house residents and other community-based activists, such as Jane Addams and Mary McDowell. Even Ernest Burgess, who would later father the theory of urban ecology, lived temporarily in Hull House. These scholars promoted an integration of scientific investigation with political commitment (2).

By the 1910s, however, Chicago sociologists began to embrace a more formal scientific posture. At best, they bracketed their political commitments from the investigative process, at worst, they turned openly hostile to urban reform. As Burgess recalled: "by the 1920s this ‘social work’ orientation had given way . . .to an ambition to understand and interpret the social and economic forces at work in the slums." Burgess quickly distinguished sociologists’ scientific objective from their continued "faith or hope . . .in the improvement in the lot of slum dwellers." His colleague, Park, proved less subtle, denouncing urban reform as the work of "do-gooders" (3).

Chicago sociologists’ apolitical (if not to say anti-political) stand combined with a distaste for any theoretical posture. Sociology, they insisted, should be grounded on a strictly empirical basis, where the community, its main unit of analysis, essentially constituted a source of quantifiable facts (4). Sociological concepts were seen as mere methodological tools for empirical investigation. They were, in the words of Robert Park, "quite innocent, in most instances, of anything that could be called a doctrine” (5). Sociologists thus set
out to de-politicize and de-theorize their epistemology and proposed an objective,apolitical and strictly empirical social science.

It was human ecology that provided sociology with this scientific and apolitical basis. First proposed by Park and Burgess (and later further theorized by Walter McKenzie), human ecology became one of the main underpinnings of sociological investigation. In 1925 Park became president of the American Sociological Society, and urban ecology continued to dominate the discipline until at least the 1950s (6).

What did human ecology postulate? It characterized a community’s social and spatial relations as the product of an essentially biotic process of competition and accommodation. All human communities, the model proposed, grew out of such a biotic process, analogous to botanical or zoological eco-systems. Like plants or animals, human beings generated communities that were based on an equilibrium between individual competition and collective cooperation. They defined a division of labor that allowed for both individual initiative and collective stability. Like in plant life, a human community proved subject to constant internal and external stimuli that required the community to adjust and thereby progress over time. In sum, human ecology postulated that human communities operated essentially on a self-regulating and natural basis and that these mechanisms could be investigated empirically (7).

To urban ecologists, the city constituted an agglomerate of a large number of smaller communities, also called natural areas, whose interrelations proved subject to the same ecological processes just outlined for the individual community. Just as individuals aggregated in communities, these natural areas symbiotically united to form a higher organic unit: the city (8). Urban ecology set out to explain how these natural areas interrelated functionally and spatially within the higher logic of the metropolis.

On the urban level, competitive cooperation took the form of social and functional segregation, by which the urban area separated out into diverse residential, commercial and financial areas. The various regions of the city competed most intensively for commercial and financial dominance, a struggle "almost inevitably" won by the city’s core, which evolved into the Central Business District (CBD) (9). The commercial growth of outlying areas only served to reinforce the commercial dominance of the CBD, as long as the former were tied to the latter through effective means of transportation and communication. (Park labeled this process "decentralized centralization"18.) Likewise, residential segregation reflected competition for living space among social and ethnic groups, whose members had associated based on their economic status or psychosocial need for identity. As commercial specialization, residential segregation revolved around the city center, but with an inverted gradient of social dominance. That is, the poorest regions surrounded the commercial center, while the dominant, most privileged zones lay in the outer periphery.
Residential segregation hardly proved an obstacle to urban progress, however. On the contrary, Chicago sociologists considered it to be a dynamic process that ultimately promoted mobility across the urban landscape. Based on the ecological concept of succession, which described the effects one eco-system held on surrounding ones, Burgess described the gradual alterations from one residential zone to the next. In the early-twentieth-century city, the most visible perturbation of the natural equilibrium lay in large-scale immigration. According to Burgess, new immigrants first arrived to the poorest and inner concentric area, where they would spurt its previous residents to move...
outward in search of distance from the newcomers and improvement in their social status. Thus continued cycles of new population influxes served to generate an outward and upscale mobility among city residents. Burgess’ concentric model inscribed in the urban landscape the American dream of social opportunity and improvement for all (11). In sum, Chicago sociologists proposed a model of urban society and form that essentially rooted in a number of self-regulating, biotic processes: first, a commercial and residential competition and cooperation among natural areas, manifested in a predictable pattern of segregation and, second, a dynamic and progressive succession of inhabitants across contiguous concentric areas.

Urban ecologists were naturally aware of fundamental differences between plant and human ecosystems. Unlike the former, the latter relied on cultural resources, which enabled them to transcend a strictly natural form of competition. Through customs and norms, means of communication and institutions, human beings could negotiate and reach consensus on the forms of social coexistence. Yet, Park and colleagues assigned priority to the biotic sphere; social and cultural agreements could not fundamentally alter, only mitigate, biotic processes. To paraphrase Park, ‘the biotic formed the base of a cultural superstructure’, (12).

Sociologists’ escape from culture and politics also implied a withdrawal from the public sphere. Park imposed upon the biotic-cultural divide a distinction between the private and the public sphere. Biotic base and private sphere comprised most, though not all, of a society’s economic activity, whereas political and ethical agreements rooted in the public realm. Moreover, whereas within the private sphere the individual enjoyed a good degree of freedom to compete and prosper, in the public sphere, he (or she) found the same restricted by various mechanisms of social control. Culture, here considered as a public consensus on political and moral restrictions, served primarily to limit the natural freedoms of the individual. Urban reform measures, Park claimed, for example, were designed to place "some sort of restriction or governmental control over activities that were formerly ‘free’" (13). Finally, urban ecologists ascribed the biotic/private sphere a dynamic and the cultural/public sphere a static quality. Impulses toward change, they argued, stemmed primarily from the private realm, which harbored individual initiative and mobility. In contrast, the public sphere by itself, designed to limit the excesses of private initiatives, could not initiate change. (Urban ecologists’ characterization of the public sphere as a negative, restraining force did not impede them from considering it necessary to a city’s evolutionary progression) (14).
Human ecologists sought, with great difficulty, as we shall see, to delineate the different subdisciplines of sociological investigation in accordance with the biotic-cultural divide. In theory, human ecology dedicated itself to the study of the biotic base and its interaction with the cultural sphere, whereas other sociological fields would study cultural and social manifestations (15). Yet these ontological boundaries proved impossible to maintain when it came to the question of empirical investigation. For the very aspects, human ecologists could count and measure--land values, indices of communication such as number of telephones per capita—emerged from the very sphere they declared out of bounds: the cultural. The natural area, the main unit of analysis of the urban ecologist, was at once an empirical entity, subject to empirical investigation, and a theoretical construct. (As we shall see, Park and Burgess would try to solve this dilemma in a rather curious manner, by actually ascribing these variables--land values, transportation and communication—to the biotic sphere) (16).
However complex these attempts to draw clear disciplinary and methodological boundaries—a point I shall return to—human ecologists proposed a field of investigation that essentially neglected, or at least considered of secondary importance, the fields of culture, politics and theory. The *raison d’être* of urban ecology consisted in the affirmation that a city’s fundamental spatial and social processes could be measured and understood in accordance with biotic laws.

Let me now turn to the urban ecological perspective on public transportation (17). First, mass transit proved essential for urban mobility, the already described motor of urban evolution. In order to move across a variety of natural areas, each dedicated to a different function (residence, work, consumption, leisure), urban residents required effective means of transportation. Second, without urban transportation such functional specialization of urban areas would be impossible. Park’s model of the city’s commercial and financial segregation required not only an efficient transportation network as such, but a centralized one. Likewise, Burgess’ notion of residential succession across concentric areas relied on an already existing streetcar system. The streetcar, finally, was the means of outward and upward social mobility (18).

As I suggest here, in the ecological model, urban transportation formed a prerequisite for the biotic processes taking shape (division of labor, segregation, etc.). As such, electric streetcars, which constituted a major technological breakthrough at the turn of the century, were placed in the biotic sphere itself; not in the cultural sphere, where they would be subject to political negotiation (19). Burgess and Park assumed that a centrally-oriented transportation network predated the very process of centralization they sought to explain. In the words of Burgess, it was a "natural tendency for local and outside transportation to converge in the CBD". Furthermore, Chicago sociologists considered public transportation a product of private initiative, not public agreements. Burgess, for example, described the fact that a city could run on "one huge electric light plant . . . a tremendous development of communal existence," yet went on to state:

like most of the other aspects of our communal urban life, this economic cooperation is an example of co-operation without a shred of what the ‘spirit of cooperation’ is commonly thought to signify. The great public utilities are a part of the mechanization of life in great cities, and have little or no other meaning for social organization (20).

Urban services, then, resulted essentially from private and biotic processes. The streetcar, that, as we shall see, proved the object of intensive political negotiations in progressive-era Chicago, was inscribed into nature (21).

When Burgess belittled the "spirit of cooperation" necessary for the establishment of a major urban service, he ignored years of public discussion over the nature of Chicago’s streetcar network. Likewise, when his colleague, Park, argued that "Modern methods of urban transportation . . . have silently . . . changed . . . the social and industrial organization of the modern city," did he forget about the past two decades during which public transportation proved anything but a silent phenomenon? (22). It is time to relieve...
the apparent amnesia of Burgess and Park with regard to Chicago’s politics of transportation.

Like urban ecologists, progressive reformers considered the streetcar vital to urban development and, likewise, stressed the importance of urban mobility. They also hailed the streetcar as the means by which slum-dwellers could move to outlying areas. But here the parallels to the urban ecological model end. Whereas later urban ecologists associated urban mobility with greater fragmentation and specialization of the urban landscape, urban reformers and sociologists of the turn of the century hoped that mobility would serve to integrate the city. Such urban cohesion would be achieved by means of a greater public spirit among city residents. Chicago economist and sociologist Charles H. Cooley, for example, argued that an improved (suburban) environment for workers would enhance their "social imagination," which, in turn, allowed them to strive more fully for the city’s civic ideal (23). The interior space of the streetcar, reformers hoped, would foster greater public interaction and civic mindedness. A streetcar ride could generate "this sense of intimacy with the city that we most lack in America," Frederick Howe exclaimed (24). For turn-of-the century reformers, the streetcar would serve to vitalize the city’s public life as well as enhance private and individual mobility (25).

Imbued with such a vision, progressive-era reformers placed the privately-run transportation system on the forefront of the city’s political agenda (thus seeking precisely the opposite of what urban ecological theory would later attempt). Only through public, governmental regulation, they argued, could the streetcars operate to the benefit of the city as whole. Thus, from the 1890s until the 1910s, the central political question in Chicago revolved around how the city should increase its powers over a service, now considered a vital public service, but in fact controlled by three private corporations. By the early 1900s, the matter had provoked two major responses. On the one hand, moderate reformers, organized through several new civic associations (such as the Civic Federation of Chicago), demanded that City Hall assume greater regulatory functions over a system that should continue to fall under private operation. On the other hand, the city’s trade unionists (represented by the Chicago Federation of Labor), along with sympathetic middle-class reformers, generated a mass-movement demanding public ownership of the streetcar system. This municipal-ownership coalition succeeded in electing its mayor in 1905. Two years later, however, the former position won out, when Chicagoans approved a settlement franchise that retained streetcars in private hands and only mildly increased the municipality’s regulatory powers (26).

Chicago’s political controversy over the streetcar reflected far more than questions of efficient service. As we have seen, the two main political positions on the question differed over the extent of government involvement in what until then were considered private/social matters. Furthermore, the streetcar question symbolized urban reformers’ crusade against political corruption. Muckrakers of the 1890s, like William H. Stead and Henry Demarest Lloyd, accused streetcar magnates of hamstringing the city’s public officials through bribes in return for lucrative franchises. To these public critics and their audiences the streetcar was associated with the survival of the city’s public institutions. Streetcars also brought to the fore the "labor question." Trolley workers formed trade unions in the early 1902 and launched effective work stoppages that paralyzed urban
traffic (and with them reformers’ hopes for urban mobility). Debates over government regulation of the trolley system thus had to address whether trade unionism would form a legitimate part of public life and whether it could be allowed to associate with municipal government. Finally, the streetcar debate concerned the nature of political participation in a democratic polity. The municipal-ownership movement, centered on the city’s 300,000 organized wage earners, claimed direct forms of representation and participation in governmental affairs. Practicing petition drives and calls for popular referenda, it sought to maximize popular control over government, practices that horrified many moderate reformers. Streetcars then were far more than vehicles for urban travel, they would serve to define the city’s social and geographic integrity, governmental institutions, social actors and democratic politics (27).

By 1907, when Chicagoans agreed on the new streetcar franchise, a new political culture of functionalism and pluralism began to take hold in Chicago. Reacting to the multi-layered streetcar struggles, functionalism saw the streetcar as an urban service designed to meet city residents’ needs and nothing more. That posture proved far from politically neutral, however. For one, by denouncing plans for municipal-ownership as unrealistic "pipe-dreams," foreign and unsuitable to the reality of American cities, it contributed to the defeat of public ownership. Moreover, a functionalist perspective opposed the idea, promoted by municipal-ownership advocates, that ordinary citizens ought to hold direct control over urban-service related decisions. Defining the political parameters of urban transportation in narrow terms, functionalists could easily claim that service-related decisions should be placed in the hands of professional experts (28).

Functionalist ideology also denied that urban transportation held any transformative powers in shaping the city’s development, and rather considered it a "neutral" urban service. The debate over the construction of subways in 1909 is a case in point. Plans promoted by the Chicago Board of Supervising Engineers for an underground downtown rail service provoked a fundamental debate over the priorities of public transit policy and its effect on the use of the city’s spaces. Chief engineer Bion Arnold considered a subway the logical solution to the evident problem of downtown traffic congestion (29). In a highly centralized city, where most traffic centered on the Loop, improvements in streetcar technology or scheduling did little to alleviate the congestion of downtown traffic, he contended (30). Yet Arnold’s plan met with stiff opposition from small businesses located outside the downtown area. Organized in the North West Side Commercial Association and the Greater Chicago Federation, they argued that subways, far from being mere technological tools to solve a traffic problem, would reinforce a long-held policy of favoring downtown business and real estate development over a more decentralized retail structure (31). What the city needed instead, they argued, was the construction of more cross-town lines in order to weaken the concentration of traffic in the downtown area (32). Chief engineer Arnold’s response to these criticisms serves as a classic example of the functionalist posture. Transportation lines ought to be built, he affirmed, "in the general direction of existing traffic and not . . . to suit particular theories" (33).
Yet ultimately, functionalism also proved counter-productive to the ambitious plans of a civic engineer such as Arnold. In 1912, his subway proposal met with widespread public defeat, resulting in a delay in its construction until after World War II. Functionalism, first used by moderate reformers against more radical statist plans, ultimately worked against any urban reform agenda. In 1911, moderate progressive reformers, who had adopted a functionalist rhetoric against the radical Dunne in 1905, launched their candidate for the mayoral race, University of Chicago political scientist Charles Merriam, and were defeated by the same token. In brief, Merriam’s opponents successfully disqualified the university professor for being an intellectual unable to deal with the city’s practical problems. A politics revolving around the question of how to affirm the "public interest," the main banner of progressive reformers, gave way to a politics devoted to the negotiation among social groups pursuing narrowly defined interests, in other words, a politics of pluralism. Chicagoans thus would come to terms with living in a fragmented city, fragmented in political as well as geo-social terms. The ideology of functionalism found its political home in the political machine, rising to the fore under William Hale (“Big Bill”) Thompson by 1915. Thompson justified his autocratic style of rule with claims of servicing the needs of a diverse array of interest groups. Unlike the reformers, he refused to resort to "fancy" ideas, including the concept of a politically active public, and presented himself as a practically-oriented leader. The automobile, a vehicle made for the privatized and individual city, fit perfectly in such a political climate (34).

The theory of urban ecology proved highly compatible with the decline of reform and the rise of functionalist politics by the 1910s. Just as opponents of radical reform in transportation sought to remove urban transportation from politics, so did urban ecologists. Moreover, both functionalist politicians and urban ecologists assumed that the city developed in accordance with quasi-natural processes, ergo not subject to political negotiation. Public transportation furthered the natural segregation of the city, but it certainly should not be an object of political manipulation designed to radically transform the city’s social and functional spaces. Any change at all, evolutionary for sure, would stem from the private sphere, not the public. Certainly, in relegating the streetcar to the natural and private sphere, Chicago sociologists were forced to practice a selective historic memory. But their posture makes sense, if we consider it part of the city’s new functionalist political culture.

University of Chicago sociologists’ turn away from a public agenda and their view of the public sphere as an essentially negative, controlling force reflected not only a disenchantment with urban reform politics as such, it also constituted a reaction to a climate that questioned the public role of the intellectual. As we have seen, in running for mayor in 1911, Merriam faced his greatest obstacle in being a university professor. When Chicago sociologists heartily embraced functionalism, they backed the very force that had written them out of public discussion, no longer suitable to theories and "pipe dreams." Only as empiricists with a limited public agenda could intellectuals maintain some voice on the future of their city (35).

What I have suggested here is that the naturalized vision of urban development promoted by the Chicago urban ecological model held profound roots in the local political context of the city, especially with regard to the question of urban transportation. The
model’s view of the city as a space essentially, if not exclusively, shaped by biotic forces must be seen as an affirmation of a new functionalist political culture that declared the private sphere to be the locus of historic change. After the progressive era, the concept of the public could no longer be ignored in social investigation, but it would occupy a marginal place, only occasionally and uneasily referred to. The demise of progressive reform thus promoted the empiricist and functionalist turn of social science for decades to come (36).

Chicago sociologists’ view of the city have shaped our own understanding of the urban past. Until less than ten years ago, most questions of urban services and politics were treated as functional ones. Which type of government, urban historians asked, would best serve the needs of its residents, the boss or the reformer? Only more recently have we stepped out of the shadow of the functionalist representation and have returned to center stage the dimension of power (be it exerted by social classes or by discourses) in our narratives of urban political history (37).

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**Citas y notas**


5. Cited in Kurtz, 22.


8. The view of the city as an organic unit dates long before the urban ecological view. During the 1890s, Chicago urban reformers equated the city with a biological organism, although with quite different criteria and political implications. See Dorothy Ross, "Toward a sociology of social control," chap. in The Origins of American Social Science (Cambridge University Press, 1991); Paul Boyer, Urban Masses and Moral Order in America, 1820-1920. Cambridge: Harvard University Press, 1978; Richard Sennett, Carne y Piedra [full cite].


10. Burgess, 55.

11. Burgess distinguished between movement and mobility. The latter signified a movement with a directional purpose, such as a desire for self-improvement. The former, however, implied movement for its own sake, not integral to the entire personality. Burgess considered such movement potentially pathological as it was only dedicated to a restless pursuit of pleasure and vice. Not surprisingly, Burgess found that the city's poorest area exhibited the greatest movement of the latter type. Burgess, 16.

Burgess and Park considered it normal and even necessary for a city’s progress to be in a state of crisis. Only an excessive "invasion" of the city by new immigrants could lead to a "pathological state" of the community reflected by such symptoms as delinquency, vice and disease. This was a clear reference to the major wave of black immigration to Chicago during the World War I years. Chicago sociologists assumed that black ghettos, just like those of Eastern European immigrants, would eventually incorporate into the mobile successive process postulated by their urban ecological model. Park, "Ecología humana". On black immigration to Chicago, see Allan H. Spear, Black Chicago: The Making of a Negro Ghetto, 1890-1920 (University of Chicago Press, 1967).


14. Kurtz, 28; Saunders; Park, "The City," 28-29 and idem. "Ecología humana," 103-104. Park did not go so far, at least by his 1930-essay, to suggest that economics were solely a private, laissez-faire matter. He insisted that the realization of the need for cultural (i.e. governmental) regulation of the economy constituted an advancement in societal evolution.


16. Saunders. The contradiction would not be resolved until the 1950s, when human ecology split into two distinct fields: one the one hand, the study of demography that insisted on a strictly empirical methodology without intentions to theorize and, on the other hand, cultural anthropology that set out to analyze society but without empirical claims. Ibid.
17. Burgess, esp. 49.


21. The contradiction between transportation as a cultural and natural phenomenon was reflected in the question of methodology as well. On the one hand, human ecologists insisted that urban transportation provided the base of a natural process of self-regulation, but on the other hand, they argued that the empirical study of streetcar systems would serve as an indicator of the direction of the city's ecological development. Burgess, for example, argued that the large increase in the number of streetcar rides per capita over several decades was indicative of an increased urban mobility, but did the streetcar constitute a cause or an effect of urban growth? Did the streetcar form part of a theoretical formulation (on urban ecological growth) or did it constitute a tool of empirical analysis? Burgess 60.


25. For a more detailed discussion of this reform vision, see Leidenberger, "Private Streetcars and Public Utopias."


28. Ibid.


33. Barrett, 68.


37. Ibid.