Environmental Quality as a Post-industrial Urban Growth Strategy: The Chattanooga Case

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ABSTRACT

As poorly planned concentrations of production and consumption, cities can have adverse effects on environmental quality. A poor local physical environment is considered a drawback for the future vitality and economic competitiveness of a city. A strategy of urban redevelopment employed by a wide variety of cities known as the "livable city movement" is analyzed. More specifically, the environmental implications of the post-industrial city are discussed within the context of the livable city movement. This paper analyzes how Chattanooga, Tennessee, and its local political and economic elites are improving the city's environmental quality and promoting the controlled growth of the city. The elite's national connections with the intellectual leaders of urban design has been crucial for Chattanooga's success, but the institutional structure of the elite does not only provide possibilities, but also poses limitations of an improved urban environment.

KEY WORDS: urban environment, elite power, post-industrial change, economic development strategies, Chattanooga.

INTRODUCTION

In 1969, the federal government labeled Chattanooga, Tennessee (Fig. 1), as the most polluted city in the country with regards to its air quality. Chattanooga's industrial past, based on steel and iron production, left the city with severe air pollution and abandoned industrial sites in the urban core, while the Tennessee River and its tributaries were contaminated with toxic pollutants. Today, Chattanooga is lauded as a national model for combining environmental initiatives with economic redevelopment. The city has attracted significant media attention and was named as one of America's 10 most enlightened cities (Utne Reader, 1997). The air is now clean, downtown and riverfront areas are restored, and zero-emission electric buses form the backbone of the city's much-admired public transportation system. Local leaders ag-
gressively market Chattanooga as “The Environmental City.”

This paper analyzes how the city of Chattanooga has improved its environmental quality, and more specifically, how the city’s elite institutions initiate and control the intellectual agenda that influences the direction of the city. Included in the elite designation are corporations and individual business leaders, business associations, top politicians, and locally based non-profit institutions and their representatives. The ideological commitment to urban progress is also backed up by substantial financial abilities of the local elite, for whom the environmental improvements represent not only civic pride, but more importantly, a way to achieve sustainable profit and economic growth for the urban area. To determine the nucleus of power and the sources of change, the institutional structure of the local elite is analyzed, and possibilities as well as limitations for an improved urban environment as imposed by the political economy of place are discussed.

THE LIVABLE CITY—SOME THEORETICAL CONSIDERATIONS

A turnaround such as Chattanooga’s is the creation of forces both outside and inside the city. Chattanooga’s rebirth reflects a trend in urban America, as all cities are influenced by the currents of the capitalist economy. The post-industrial turn has altered the economic base for most cities as manufacturing has been replaced by service industries, but local success is also dependent on a coherent strategy vis-à-vis other cities. Inter-city competitiveness is increasingly characterizing the urban system, contributing to the adoption of an entrepreneurial style of urban governance accompanied by the growth of public/private partnerships (Harvey, 1989). The theoretical framework of the livable city stresses empiricism and the locale, as suggested by Gottdiener and Feagin (1988), but it must also be recognized that the city is shaped by broader trends and structures. This balance between structure and agency, as
theorized by several philosophies in contemporary social science (Giddens, 1984; Collier, 1994), is made explicit in the process of urban change in Chattanooga.

One component of the new paradigm of post-industrial economy and city governance: a strategy of urban redevelopment known as "the livable city movement" is analyzed. This movement contains several elements such as downtown revival, pedestrianism, the importance of density for a traditional experience of urbanity, an emphasis on culture and entertainment, and improved local environmental quality (Frieden and Sagalyn, 1989; McNulty, Penne, and Jacobson, 1996). Perhaps nowhere is the notion of sustainability and environmental quality more clearly used as a development strategy than in Chattanooga. The interaction between the public and the private sphere in Chattanooga also indicates a shift where private interests perform decision-making and developmental tasks previously confined to the realm of public planning.

On the surface, the livable city movement originates more from everyday politics and local realities than from a single intellectual body of thought, and from that perspective it is not a normative model for urban development, but rather reflexive of processes taking place in the local political, social and physical environments. However, local policies are not formulated in a vacuum. Ideological undercurrents on the macro-level are highly influential in local practices. Entities like the Urban Land Institute and the Rouse Corporation have been instrumental in advancing a national urban agenda. For some cities, such as in Portland, Oregon, the adoption of the general livability formula is a natural extension of progressive politics and community involvement. For other cities, such as Baltimore, Pittsburgh, Cleveland, and Chattanooga, that are characterized by a declining industrial core, the adoption of the livability strategy is seen as a necessity to sustain local economic growth. But behind the improved livability of a place often lies the local power structure. A critical view of the relationship between public policy and private interests is required here, and it is assumed that the nature, history and organization of local elites influence the trajectory of the city. The institutional structure of local elites typically includes public/private economic development partnerships, the Chamber of Commerce, foundations and other local philanthropic organizations.

The livable city movement is best understood via elements from a variety of academic fields. Molotch's (1976) concept of cities as growth machines is useful in understanding the imperative of growth, and Stone's (1989) urban regimes explain how coalitions between different interest groups can be sustained over longer periods of time. In both theories, local governments cooperate with business interests to encourage economic growth. Furthermore, property and real estate interests are especially active in promoting the growth agenda. The expanding value of land and real estate is a prime force for the involvement of downtown interests in issues of downtown revitalization, and sometimes, inner city housing. The increasing exchange value of property forms the basis of the growth agenda, which frequently conflicts with the user value of property, the concern of most citizens (Logan and Molotch, 1987). Other players participating in the growth machine/urban regime are the local newspaper, instrumental in shaping public opinion, and philanthropic organizations, such as local foundations whose goal is not only to support charitable causes but also to promote societal stability and reproduce the existing social order (Hall, 1992).

Another segment of the livable strategy is the new urban landscape of consumption exemplified by festival markets, harbor places and aquariums, built to attract money-spending visitors. This Russian approach aims "to entertain middle-class shoppers and make them feel comfortable" (Frieden and Sagalyn, 1989, p. 112). The creation of downtown pedestrian life is central to this strategy, and it is also in line with the growth coalition's concern with exchange value. The importance of pedestrianism finds intel-
lectual support in the school of New Urbanism, a contemporary movement in architecture and planning. New Urbanism proposes a return to a denser settlement pattern and improved community structure through neo-traditional design. These changes should ideally be small scale and built by a variety of actors (Jacobs, 1961). The ultimate goal of the designing of urban spaces on a human scale is to create an improved civic society (Kunstler, 1993). Proponents of New Urbanism assert that if development is guided by these design principles, a community will grow in an “ecological” or “organic” fashion. This approach is appealing as an official redevelopment strategy, as it does not necessarily involve huge capital investments, but rather dedication in planning and implementation. New Urbanism may also have profound environmental implications in its promotion of a more efficient physical societal structure and energy use. It can also be linked, both philosophically and politically, to the unusually porous concept of sustainability. However, in the urban political economy, these design principles might be difficult to actualize. Not only the inertia of the car dependent society, but also limiting urban sprawl in favor of higher density will inevitably interfere with the exchange value of suburban real estate.

ENVIRONMENTAL IMPROVEMENTS IN CHATTANOOGA

The first step toward improved environmental quality in Chattanooga was the implementation of air pollution regulations. In the 1970’s, the city enacted new, stricter emission regulations, forcing industries to institute cleaner technology. It must also be acknowledged that the city’s efforts to enhance air quality were greatly aided by the deindustrialization process. Since then, Chattanooga has employed a variety of strategies to improve its urban environment. Five current themes aimed at improving the environmental quality in Chattanooga can be identified; greenspaces and pedestrianism, urban density, electric buses, an eco-industrial park, and the clean-up of Chattanooga Creek.

As a part of a comprehensive downtown redevelopment plan centered around Chattanooga’s major tourist attraction, the Tennessee Aquarium, the city has created a riverwalk which will have a total length of 22 miles when finished to supplement the pedestrian orientation of the downtown area. The new center city greenway will also be connected to a comprehensive 75-mile network of urban greenways (Lerner, 1995). The demise of the industrial landscape has produced an abundance of abandoned and vacant land in the urban core, which has been instrumental for the realization of this project. An integral part of the greenway system is also a restored railroad bridge that serves as a pedestrian walkway, connecting the north side of the city with the downtown riverfront (Fig. 2). A positive effect of the pedestrian bridge is the development of the north side as a mixed use area with retail, restaurants and housing. This small scale development is exactly what the livable city model emphasizes as desirable for a functional urban environment.

Like in many American cities, Chattanooga’s downtown has not been an attractive site for residential housing, and the absence of housing was considered a problem for the implementation and credibility of the livability plan. A new apartment complex financed by both public and private money is now located near the aquarium as a part of the riverfront plan. The residential development commands premium rents and enjoys full coverage. Provident Insurance Company, one of the city’s major corporations, is now considering developing several acres of its downtown land and building up to 1,000 new apartment units (Carns, 1996). Even if the plans fall through, this renewed interest for commercial housing reveals a new-found attractiveness for downtown as a middle- and upper-class residential choice. Chattanooga has also been a national leader in the production of new housing in poor inner city areas, especially the predominantly African-American Southside. If current construc-
tion plans are implemented, the chances of reversing the outflow of people from the city of Chattanooga to the suburbs are good. As argued earlier, increased urban density is crucial for the development of an energy efficient, sustainable city.

An experimental mode of transportation has found fertile ground in a city that has suffered from severe air pollution in the past. At the moment, 15 no-emission electric buses operate in Chattanooga (Fig. 3), with a total of 22 vehicles planned for the near future (Spaid, 1995). The system was initiated in 1991 by the local transportation authority, and the electric bus idea also gave birth to a company that manufactures electric buses in Chattanooga (Dugan, 1994). The vehicles run free of charge in downtown Chattanooga, serving tourists as well as three satellite parking spaces outside downtown that intercept office workers on their way to their workplaces. The direct benefits from cleaner air are small, but the importance of the project must be evaluated from other standpoints. First, the electric buses operate more as a display and a showcase promoting Chattanooga’s sustainable image. Second, as a part of the environmental economic strategy, public and private decision-makers are planning for a research hub for electric vehicle technology where the current bus manufacturing unit forms the cornerstone.

All but one of the historical foundries of Chattanooga are gone. Today, instead, an eco-industrial park is underway. The goal is to attract a diverse group of businesses to an abandoned industrial area just south of downtown to be a part of an integrated local ecological production system (Rich, 1997). One industry’s waste will be another industry’s resource. All waste products will be reused, thus creating a zero emission zone. The goal is to arrange the industrial and societal processes so energy consumption and waste creation is minimized and a closed loop
is created. The idea behind the location is to integrate neighborhood and workplace in the Southside neighborhoods which contain several abandoned industrial sites. One problem is clean-up of potentially contaminated sites in the area which must occur before redevelopment. Included in the development of the area is a new sports stadium. As an extension of the eco-industrial idea, it will be equipped with a grass and perforated concrete parking lot, rather than the conventional asphalt lot (Jacobson, 1997b). Green spaces between new paving is planned in many areas of the city which will reduce runoff and diminish the pressure on the city's stormwater system.

Not only the air, but also the waterways of Chattanooga have suffered severe water and sedimentary pollution for decades. The worst case is probably Chattanooga Creek, a tributary to the Tennessee River that flows through the Southside. Old industrial sites are located along the creek, and sewage discharges directly into the water. Forty-two known or suspected hazardous waste sites, of which 12 are state Superfund sites, border the creek (Phillips, 1995). Several schools are also found in close proximity to the creek. Today, the Chattanooga Creek problem is addressed by the leaders of the city's environmental strategy, but the creek still remains highly polluted.

THE ELITE NETWORK IN CHATTANOOGA

The next step to construct a coherent picture of the politics of environmental improvement is to identify the institutional network that is initiating, structuring and financing the environmental trajectory of Chattanooga. Five organizations with close ties to the city's elite are discussed in this section; The Lyndhurst Foundation, Chattanooga Venture, River Valley Partners, Chattanooga Neighbor-
hood Enterprise, and The Chattanooga Institute for Sustainable Cities and Business.

Several wealthy families have been prominent throughout the history of Chattanooga, and through the establishment of foundations, they have supported charitable causes such as arts and education. Especially the Lyndhurst Foundation has been a critical actor in Chattanooga’s environmental metamorphosis, both as a financial supporter and as a catalyst for change. With an annual endowment of up to $19 million, Lyndhurst has initiated many of the important projects in Chattanooga (Table 1). A key player has been Rick Montague, the chief administrator of the foundation during the 1980’s. Interested in urban policy, he steered the foundation towards urban issues and the redevelopment of Chattanooga (Jacobson, 1997a). The foundation also recruited a nationally renowned architect to develop the initial Riverfront master plan, which now has largely been implemented (Jacobson, 1997b). However, its support for downtown development has diminished and changed over time. Lyndhurst now has a matching fund policy where continued development receives 20 percent funding if the remaining capital can be raised elsewhere (Lyndhurst Foundation, 1996).

The privately supported civic involvement project Chattanooga Venture was formed in 1984 as a policy vehicle for community involvement to establish and accomplish goals for a sustainable community. Chattanooga Venture initiated a strategic planning effort called Vision 2000 which included 1,700 Chattanoogans representing diverse interests. Through a series of meetings, 34 city improvement goals were designated, of which 85 percent were actually realized (Utne Reader, 1997). Prominent designers, such as famous urbanist William Whyte and James Rouse, the key individ-

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ual behind projects such as Baltimore’s Harborplace and Boston’s Faneuil Hall, were invited to Chattanooga to present their ideas in these public meetings. The brainstorming session was so successful that it was followed up by a similar Revision 2000 in 1994. The impetus behind Chattanooga Venture was the Lyndhurst Foundation, contributing one million dollars annually to the organization. The support from Lyndhurst ended in 1992, and Chattanooga Venture ceased as a development organization in 1997.

RiverValley Partners is currently the only organization in Chattanooga handling local economic development. This quasi-public, non-profit organization focuses on attracting business to Chattanooga, especially in the field of sustainable research (Thomas, 1995). Its predecessor, the RiverCity Company, was established to implement the riverfront redevelopment plan and received a $20 million starting contribution from the Lyndhurst Foundation. RiverCity Company's first director was a planner who had worked for Lyndhurst with the initial riverfront plan. He was later succeeded by a former Chamber of Commerce president who also became the first president of the RiverValley Partners. The latest project for RiverValley Partners is the eco-industrial park. The organization recruited Peter Calthorpe, a Berkeley planner and a prominent articulator of the New Urbanism school in 1995, to prepare the master plan for the park. RiverValley Partners has been supported by the Lyndhurst Foundation since 1994 specifically on this issue (Jacobson, 1997a).

Largely a Lyndhurst Foundation creation, Chattanooga Neighborhood Enterprise (CNE) improves the low income housing stock in central Chattanooga with a current annual $30 million budget of Lyndhurst money, city support, HUD grants and low interest loans from local banks (Johnson, 1995). More than 50 percent of CNE’s expenditure goes to mortgage support for low income residents, while development of housing makes up 30% of the budget. The organization has financed 1,500 home buyers and produced 600 new or renovated housing units, especially in Southside neighborhoods. With additional housing, the area population will rise significantly; an increase from 2,000 to 4,000 over 10 years is estimated if current plans are implemented (Lerner, 1995).

The Chattanooga Institute for Sustainable Cities and Business is a new environmentally oriented non-profit organization which is coordinating the planning of the eco-industrial park planned in Chattanooga’s Southside (Rich, 1997). So far, $100,000 has been collected for the planning phase of the project, contributed by both private and public interests, including the City of Chattanooga, Hamilton County and NAR-Wheland, the sole remaining Chattanooga-based foundry. The organization’s role is also to educate and spur development in the environmental technology industry. Business leaders in Chattanooga are among the driving forces behind the Chattanooga Institute (Jacobson, 1997a), and its president is Councilman David Crockett, an early convert to the sustainable cause and an important transmitter of environmental ideas to the business community (Neely, 1997). Media savvy Crockett has been instrumental in establishing Chattanooga’s national reputation for environmental progressiveness. Hope also exists to locate a branch of United Nations-sponsored Zero Emissions Research Initiative (ZERI), in association with the eco-industrial park (Frenai, 1996).

**DISCUSSION**

The livability strategy employed by Chattanooga can be identified as an elite strategy where business interests and the local political establishment are the key players. Important for the successful implementation of the livable strategy in Chattanooga is the existence of a certain elite infrastructure. In the Lyndhurst Foundation, the city has a highly motivated elite group that is willing to provide intellectual guidance and to spend significant capital on the city’s rebirth. All environmental projects can be traced from the Lyndhurst Foundation or the business elite, except for the grassroots movement associated with Chattanooga Creek and
the development of the electric buses. The politically and scientifically muddy waters of community environmental problems rarely attract attention from foundations and other elite groups, while the electric buses appear to be the anomaly in the Chattanooga story.

The role of the Lyndhurst Foundation has gradually changed over time. It is now providing matching funds instead of playing an instrumental role in the policy process. The individual leadership in organizations such as RiverValley Partners has switched from Lyndhurst to Chamber of Commerce associates. To use the metaphor of sociologist Allan Schnaiberg (1991), the role of the foundation is to restart “the treadmill of production” when it is malfunctioning, only to let local business take over the continuous operation of the local economy when a new local regime of accumulation has been established.

The environmental movement in Chattanooga has often been portrayed in media as a grassroots operation. Despite these popular beliefs, the Chattanooga development initiative is not a grassroots movement, but rather an elite strategy. For example, Chattanooga Venture is often described as a group of “concerned citizens,” but was initiated and funded by the Chamber of Commerce and the Lyndhurst Foundation. The elite has managed to execute its agenda, not necessarily through co-opting citizen groups, neighborhoods and their representatives, but rather through a reciprocal process where different interests have been reconciled. Although poverty, injustices and inequalities indeed persist, the perception of communality and improvements for the common good have fostered the intended social peace in Chattanooga. Furthermore, the elite agenda has been implemented through the consultation of leading planners and designers. The diffusion of the livable ideology from its leading advocates, via the city’s elite, to the urban landscape of Chattanooga is easily detected.

Chattanooga Creek is where the livable strategy has produced little result. The strategy is showing its limits in its inability to respond to this particular environmental problem, and African-Americans continue to bear the burden of environmental injustices (Bullard, 1990). Paradoxically, the very neighborhoods that attract the philanthropical efforts of the elite, through the work of Chattanooga Neighborhood Enterprise, are situated along the highly toxic Chattanooga Creek. However, this contradiction is not very surprising from the growth machine perspective. Neighborhood improvement in central cities is beneficial to downtown revival, which is the centerpiece of the livable effort of the elite. According to local law enforcement downtown Chattanooga is now the safest part of the city. It is also the most patrolled (Neely, 1997). The role of the police in protecting the downtown investment has become a part of the livable strategy, as well as making the city’s neighborhoods safer places.

The fundamental transformation of the environment that has taken place in Chattanooga was enabled by overarching structures as well as local contributors. However, further reaching goals are still constrained by the limitations to change as imposed by the growth imperative. For example, attempts to limit urban sprawl will inevitably be challenged by real estate interests. The second phase of the Chattanooga story, to produce a truly sustainable community, will thus be much harder to implement than the urban revival process already achieved.

REFERENCES


