Place-based urban ecology: A century of park planning in Seattle

Sarah Dooling · Gregory Simon · Ken Yocom

Abstract This research responds to calls from within the field of urban ecology to explicitly incorporate humanities-based research in order to achieve robust interdisciplinarity. Our research provides an example of a place-based urban ecological analysis. We use this framework to analyze over a century of park planning and development within the city of Seattle. We identify four eras of park planning that are linked by a comprehensive 100-year park plan. This case study examines how the political, cultural, and economic aspects of park planning have produced and been influenced by long-term trends and historical contingencies. This research also offers practical insights for effective contemporary urban planning, emphasizing the need for flexible and adaptive long-term plans when confronted with unpredictable events, emerging political arrangements, changing cultural priorities, and shifting fiscal climates.

Keywords Urban ecology · Seattle · Urban parks · Place-based · Humanities · Interdisciplinary · Long-term planning · Olmsted firm

Introduction

Seattle is a city of over half a million residents with approximately 9% of its total area designated as park or open space (US Census 2000). There are currently more than 400 city-owned and maintained parks, including forested areas, boulevards, playfields, playgrounds, and golf courses. Guided by a vision and comprehensive plan for parks developed in

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1903 by John C. Olmsted, Seattle has woven an extensive system of park spaces into the fabric of the city. This commitment to parks and open space has persisted throughout the development history of the city. Although the contemporary park landscape is a physical legacy of the 1903 Olmsted plan, shifting political processes, fluctuating economic conditions and evolving cultural ideologies have influenced the implementation of the plan over the past 100 years. More than a century after its initial implementation, the plan continues to be interpreted and applied within the context of a densely settled urban system, where the converging interactions between politics, economics, and park planning culture are in some ways similar, yet inherently distinct from the earliest period of park planning in Seattle.

Our research explores the development and influence of park planning in Seattle from 1884 to 2004 within an analytic framework of urban ecology (see Alberti et al. 2003). Within natural science research, urban ecology promotes the re-integration of humans into researching the ecology of urban systems (May 2004; Alberti et al. 2003; Pickett et al. 2001; Grimm et al. 2000). Much of the natural science research has defined urban areas as "ecosystems" without explicitly acknowledging the influence of humans on the biophysical landscape (McIntyre et al. 2000). However, as the understanding of ecological processes in urban and urbanizing environments expands, natural scientists are becoming more motivated to perceive urban areas as human dominated systems which function in distinct ways from non-human dominated systems. The growing appreciation among natural scientists for the role of urban social systems in driving urban ecological change facilitated the construction of an urban ecological framework that perceives urban systems as co-evolving human and natural systems (Alberti et al. 2003).

The application of an urban ecological framework allows for the detailed study of inter-actions between human (including political, economic, and cultural) and biophysical (including hydrological, climatological, and terrestrial) conditions as well as resulting patterns of environmental and social change. Urban ecology has been positioned between the humanities and science, with some urban ecologists proposing that humanities become the backbone of rigorous urban ecology research (Alberti et al. 2003). Although, most urban scholars acknowledge the importance of history and culture, few recognize the influence of historical contingencies on the social and ecological patterns that emerge in urban systems. May (2004) explicitly incorporates a humanistic approach into an urban ecological framework, and articulates the influence of historical conditions and cultural practices in the development of an urban area. Building upon her work, we expand this urban ecological framework to incorporate methods of historical analysis for exploring how the interactions between politics, economics, and ideologies have influenced park planning and development over time.

Our framework embraces a place-based, historically grounded approach focusing on the relationship between patterns of park development, shifting political arrangements, changing cultural conditions, and fluctuating fiscal resources within park planning. We ask three questions:

1. What major political, economic, and cultural processes have influenced park planning in Seattle over the past century;
2. How have these processes interacted to produce significant and distinct periods of park planning (including acquisition and development) activity; and
3. How has the 1903 Olmsted plan persisted and adapted to the shifting processes of park planning during this same time.

We define the politics of park planning as the relationship between the Seattle Parks and Recreation Department (SPRD), Seattle city elite and local community members engaged in

the process of park planning. The economics of park planning refers to private, city, regional, and federal fiscal resources used to acquire, develop, and maintain parks. Park planning culture is viewed as the influence of citywide agendas concerning park acquisition, maintenance and development. Primarily driven by local factors, these three components of park planning are further influenced by scalar economic, political, and cultural conditions. We explore each component individually, while also paying attention to their interactions in order to describe and situate the application of the 1903 Olmsted plan. By incorporating a historic analytic method to Alberti et al's framework of urban ecology, we are able to identify fluctuations in long-term processes and drivers, which lead to a rich understanding of the evolution of urban systems.

Our description of the process of urban park planning and development over 100 years motivates an understanding of cities as ecological systems, where the historical interrelationship between social, economic and political processes has influenced park development in Seattle. We are therefore most concerned with examining the ecological relationships, or network of factors, *influencing* park acquisition and development over time. By focusing on the drivers, processes and patterns of urban change in relation to parks, we utilize three of the four aspects of Alberti et al's conceptual framework. The fourth dimension, addressing effects—such as the ecological function of parks and park use patterns—is not part of this historical study.

The inseparability of politics from the park planning process has been well established by previous scholars (Rothman 2003; Cranz 1982). Park historian, Galen Cranz (1982) documents the emergence of new cultural ideologies and forms of public engagement, specifically addressing changing demands from citizens on the creation of new park designs and models. She acknowledges the impact of economics on urban park development, claiming parks have received increasingly smaller portions of city revenues, resulting in an increased dependence on federal funds for acquisition and maintenance. Our research builds upon Cranz's work. Where Cranz identifies large, nation-wide patterns based on three cities, we explore the single case study of Seattle, a city known both for its initial commitment to cultivate a park system and for its contemporary participatory approach to urban park planning. Cranz (1982) contends that the history of urban parks is relatively homogenous, however our research suggests that although Seattle shares some similarities with other urban centers (i.e., fiscal challenges, use of parks for social reform and public health agendas) it also possesses unique interactions between the politics, economics, and culture of park planning (i.e., the influence of a 100-year park plan, a progressive participatory park planning model and a natural endowment of hilly forested terrain, mountain views and scenic waterways). We situate our research within this expanded framework of urban ecology, using the history of park development as a focal point to highlight the contributions of historical analysis for understanding complex urban environments.

For the purposes of this study, we define historical analysis simply as the expansion of the sampling time frame. In this effort, we are attempting to capture contingencies and the variation associated with long-term and accumulative changes in the development of urban systems. Tracing the development, dormancy and resurgence of the Olmsted plan over 100 years illustrates the challenges and adaptive approaches that accompany long-term planning efforts. May (2004) emphasizes the influential power of ideology espoused by elites in high society on city development while Rozenzweig (1983) emphasizes the necessity of acknowledging citizen influence on the design and development of urban landscapes. Our research incorporates both of these perspectives. We demonstrate that park planning, including the process of implementing and adapting the Olmsted plan in Seattle, is a product

of efforts undertaken by political and economic elites as well as local neighborhood groups. We further argue that the constellation of institutional, elite, and local citizen participants, as well as the influence of regional and national park planning trends, has impacted both the process of park planning and the kinds of parks produced in Seattle.

This paper makes three significant scholarly contributions:

1. We respond to calls from within the field of urban ecology to utilize methods and epistemologies prevalent in the humanities. Scholarship commonly found in historical and cultural studies should be rigorously incorporated into the field of urban ecology to achieve robust interdisciplinarity. To this end, we have developed a *place-based, historical analysis* to understand urban ecosystems. We position our research analytically and epistemologically within the fields of urban studies and history by exploring the place-based, cultural and historical dimensions of landscape change— including the link between shifting planning cultures, evolving citizen participation in park planning efforts, and institutional park planning decisions. Instead of generating a set of generalizable findings, we seek to understand the evolution of park planning in Seattle through a case study that draws explanatory power from an assemblage of unique historical and contemporary actors, events and processes. Through this analytical approach, our research offers an epistemological orientation and set of methods commonly identified with research in humanities. Although, we recognize that our research is limited primarily to historical methodologies, we maintain substantive interdisciplinarity by addressing the cultural, economic, political, and physical dimensions of park development and landscape change in Seattle.

2. Our findings illustrate that incorporating humanities into the field of urban ecology broadens our understanding of urban ecosystems. Incorporating a humanities orientation allows us to explore the cultural, political, and economic aspects of an urban system, the uniqueness of the social and physical environment and the unpredictable outcomes of a place's history. We develop an in-depth, place-based analysis that integrates the cultural, economic and political aspects of park planning in Seattle. This analysis highlights how relationships between these three aspects of park planning have both produced and been influenced by long-term trends and historical contingencies. In Seattle, 100 years of park planning has been influenced by: stochastic financial resource availability across federal, regional, state, and city scales; an evolving park planning culture that included shifts in institutional ideologies and priorities; and an ever changing political fabric that resulted in emergent arrangements of political representation and power. By incorporating an extended time frame and the cultural aspects of urban systems we are providing an interpretation that is typically not provided by urban ecological research projects developed within dominant natural sciences epistemologies. We argue that a humanities-based understanding of urban systems contributes a rich, multi-faceted understanding to the interpretations generated by natural science-based research.

3. Our research shows how a place-based, historically grounded urban ecology can offer practical insights for effective contemporary urban planning. A historical analysis of the 100-year Olmsted plan in Seattle reveals important lessons for successful long-term urban planning. Specifically, our study illustrates the need to implement and maintain flexible and adaptive long-term plans that can remain viable in the face of unpredictable events, emerging political arrangements, changing cultural priorities, and shifting fiscal climates.

Methods

By conducting historical analysis within an urban ecological framework, we developed a mixed methodological approach for determining the relationships and nuances between the ideological, economic, and political components of park planning within Seattle.

We first constructed a database containing: the date of acquisition; method of acquisition (purchase, condemnation, donation); purchase amount; source of funding for acquisition (i.e., park bonds, levies); location of park; type of park (park, boulevard, playfield, playground, golf courses and community centers); and size of park. The database included parks acquired in Seattle between 1884 and 2003. We identified all designated park parcels excluding those less than 0.25 acres that functioned as medians, places, and triangles. Although owned by SPRD, these parcels are typically managed by local residents. The database accounts for 93% of all park properties. A histogram of the data representing the numbers of parks acquired through donations, direct purchase, condemnation, and transfer of ownership reveals four discrete park eras, including three periods of intense park acquisition activity and one period of relative inactivity (Fig. 1).

We then conducted a content analysis of primary sources such as the Seattle Parks and Recreation Department (SPRD) annual reports and park history files, as well as local newspaper accounts, and official correspondence between SPRD, the Engineering Department, and Seattle City Council. Information regarding the SPRD and other stakeholder agendas regarding park acquisitions, changing organizational structure within SPRD, and shifts in civil society participation were recorded. We concentrated our data collection on the periods of park acquisition activity; however the period of inactivity was also examined to identify shifts in management and acquisition strategies for parkland that constrained acquisitions and development efforts.
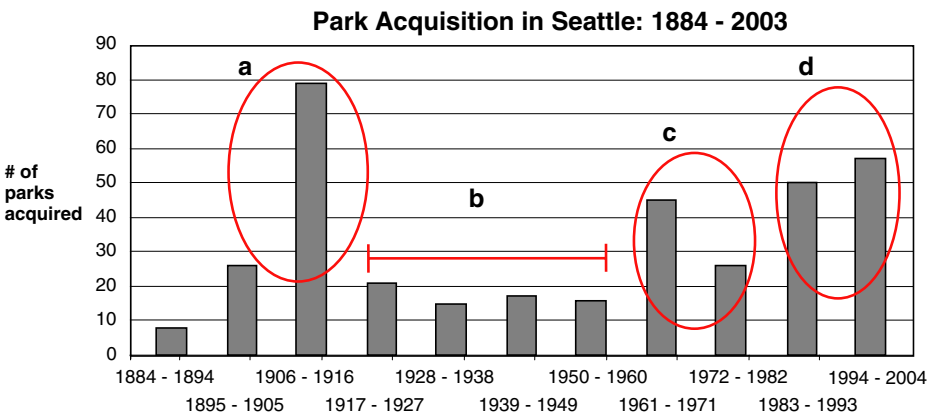

Fig. 1 Eras of park planning in Seattle between 1884 and 2004. The three periods with high rates of park acquisition are: (a) the Olmsted vision (1884–1913), (c)Urban Challenges (1968–1982), and (d) Pocket Parks for a Global City (1990–2003). The phase of inactivity is referred to as the period of (b) competition and constraints (1915–1966)

Eras of park planning

In the following sections we present the eras of park planning in Seattle, while keeping in mind the political, economic, and cultural trends, and their collective influence on the process of park development and the types of parks produced. These periods of activity are named 'the Olmsted Vision', 'Urban Challenges', and 'Pocket Parks for a Global City; and the time of inactivity is named the period of 'Competition and Constraints'. We present a narrative history of each period and then discuss in more detail the major organizing themes that dominate Seattle's history of park planning. We conclude with lessons we have learned from conducting our historical analysis within the framework of urban ecology, by focusing on the contribution of historic analytics and the challenges and opportunities of multiple epistemologies in urban ecology research.

The Olmsted vision (1884–1913)

In 1884, Denny Park was obtained by the city of Seattle, marking the official beginning of Seattle's park system. Nearly 20 years later, the park acquisition and planning process was dominated by the development of the 1903 Olmsted plan, a document that reflected the commitment on the part of influential city elites, politicians, and local citizens to the design and creation of a comprehensive parks system. An interweaving set of political, economic, and cultural conditions greatly influenced the adoption and actualization of an Olmsted-based park planning agenda. This first era of park acquisition was heavily influenced by institutional and city elite interests who viewed parks as a means of refining and beautifying the urban landscape. They also imagined Seattle as the economically prosperous hub of the Northwest and parks as a necessary feature of this elite city status. Driving much of the early parks development activity was a fear of current and future fiscal constraints and land scarcity. As the city population and demand for urban infrastructure grew, the city of Seattle acted quickly to secure parkland.

Fluctuating economic conditions greatly facilitated urban development including the creation of parks in Seattle. From its founding in 1856, and through several tenuous decades of early development, the small port town of Seattle was known as an isolated frontier outpost in the far northwest corner of the nation; yet by the turn of the century, the city was steeped in economic competition with Tacoma, a smaller town 30 miles to the south. The growing population of political and economic elite within the city wanted to establish Seattle as the center of Pacific Northwest commerce while providing the city with an aura of civic growth, sophistication, and most importantly material wealth.

Much of the economic prosperity of this period can be attributed to the Alaska-Yukon gold rush between 1896 and 1898 (Berton 1965). The port town of Seattle served as the last major port for supplies as perspective miners made their way north. Local merchants reaped the economic benefits. This prosperity brought with it opportunities, attracting investors, speculators, and future residents. Between 1890 and 1900, the resident population of Seattle increased from 63,000 to 80,000. A decade later, the city's population had increased nearly 300%, reaching 240,000 residents.

As the population and physical city grew, so did the local economy. Such growth was intrinsically linked to the transformation of the biophysical landscape and the waterways surrounding the region. Local hydrologic, timber, tideland and soil resources were harnessed to develop the nascent urban landscape and to develop the required infrastructure

for its rapidly increasing population (Klingle 2001). The city also began to refashion its landscape through an extensive grading process designed to level the steep landscape of the Puget Sound shoreline in order to increase the buildable area of the city. The biophysical environment provided both opportunities and limitations for the diversity of urban projects in the emerging city, including the development of a citywide parks system. The drive for economic competition, coupled with population growth and city expansion, were important factors that led to the commission and subsequent adoption of a comprehensive park plan developed by John C. Olmsted in 1903. Seattle, and its future park system, was to be carved out of, and built into, the surrounding physical environment as a result of this early economic prosperity.

Early on, Seattle Park Commissioners recognized that in order to foster a refined citizenry and powerful local and regional economy that was attractive to merchants and investors, the city needed to take full advantage of its environmental setting. Consistent with romantic ideals of urban society in the United States during this period the Seattle Park Commissioners stated,

> Nature has blessed Seattle with a magnificent setting for a beautiful park system. With the placid waters of the Puget Sound...Lake Washington...the lofty Olympic Mountains...the Cascades...with two large lakes within the city itself, what more could one conceive in the way of scenic environment (Park Board Commissioners 1912, p. 9).

City boosters hoped that harnessing these environmental aesthetics would help to acculturate a sense of high-class identities (Fig. 2). As the park commissioners wrote in their 1893 Annual Report to the City Council, "Proper provision should be made for a system of parks and avenues as an agent of humanizing and refining the community" (Park Board Commissioners 1893, p. 3).

A decade later, Seattle's Board of Park Commissioners hired the renowned Olmsted Brothers landscape firm from Brookline, Massachusetts to design a connected system of parklands across the city (Fig. 3). The Park Commissioners wrote, "Our citizens were quick to realize that with nature's endowment we had before us a wonderful opportunity to develop a park system which would attract the eyes of the nation." (Park Board

Fig. 2 This 1920 image of Mt Baker Park portrays the aesthetic, sophisticating ideals of the Olmsted plan as experienced by park visitors (Source: Seattle Municipal Archives)

Fig. 3 Report from Parks Department shows view from Kinnear Park. During the early 1900s, Seattle parks provided aesthetic getaways or 'portals' into the surrounding (Park Board Commissioners Report 1913, p. 8)

OLYMPIC MOUNTAINS FROM KINNEAR PARK

Commissioners 1912, p. 9). Urban parks of this period were viewed as civilizing features of the congested and polluted cities; these parks represented the social refinement, civic health, and aesthetic beauty necessary for creating a modern, elite and nationally recognized city (Cranz 1982; Olmsted 1971).

The Olmsted firm presented a 100-year plan for the implementation and development of a citywide park system. The hundred-year time frame allowed the city to implement the plan gradually. A key strategy, recommended by John C. Olmsted, was the condemnation and acquisition of large tracts of land. However, a rising population brought about both supply and demand side pressures, which actively influenced the timing and rate of park acquisition. The Park Commissioners acknowledged the threat of increasing land prices and increasing human population for the development of a comprehensive park system (Park Board Commissioners 1904, p. 43; 1909, p. 11). In the early stages of park development, the notion of scarcity was prevalent, and embedded in the fundamental ideology of the Olmsted plan and in institutional strategies for park acquisition and development.

A major goal of the 1903 Olmsted plan titled *Parks, Playgrounds, and Boulevards for Seattle* was to produce an opportunity to commune with nature within the city. Such an experience was already perceived to be threatened by rapid urbanization. Between 1908 and 1912, Schmitz Park Preserve was donated to the city to bring the urban citizenry "close to nature" while simultaneously protecting some of the last stands of old growth Douglas fir in the city (Park Board Commissioners 1913, p. 38). After its donation, Schmitz Park Preserve was maintained as a forested ravine because the owner perceived a scarcity of old growth forest due to extensive logging practices in Seattle's early history.

The creation and equitable distribution of playgrounds was another goal of the 1903 plan (Sheridan 2004). Echoing Olmsted's concern over the equity of park distribution, and responding to the Board of Commissioners concerns over diminishing opportunities for securing new parklands, the 1903 Report of the Park Commissioners (p. 50) indicated the need to acquire playgrounds. Playgrounds were intended to provide opportunities for active recreation. The 1922 Report of Park Board Commissioners measured desired access to playgrounds as within half a mile of every residence. Achieving spatial equity of park distribution across the city was an important benchmark if the Olmsted plan was to be considered successful (Fig. 4).

In 1904, despite resistance from the City Council, the Board of Park Commissioners was granted administrative authority over the parks and boulevards. It was argued that this administrative shift would take decision-making power out of bureaucratic hands and better

Fig. 4 Schmitz Park is presented by the Parks Department as an urban refuge where the public may get "close to nature" and leave the stresses of urban life behind (Source: 1913 Park Board Commissioner Report, p. 38)

CLOSE TO NATURE,
SCHMITZ PARK
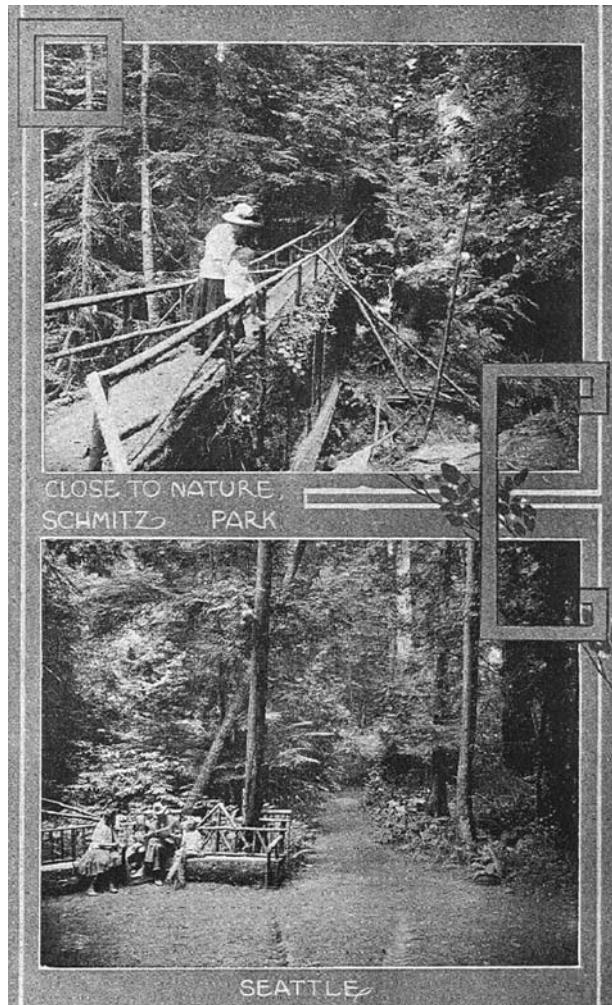
SEATTLE

serve the needs of the public (Seattle Mail and Herald 1905). With this transition came a series of park bonds put forth by the city. Every 2 years, between 1907 and 1912, city residents approved bonds totaling over $5 million (approximately $20 million in 2005 dollars) for the acquisition, development, and management of parklands within the city (Bagley 1916). While park bonds and parcel condemnation were important mechanisms for acquiring and maintaining early parklands, donations of private land by wealthy, land holding citizens were equally significant. From 1884 to 1913, 13 private parcels were donated to the city for park use, including Seattle's first park, Denny Park, donated in 1884. During this period the majority of decision making power and fiscal authority over park creation resided within the prominent land holding sectors of Seattle's citizenry. This form of centralized governance, despite necessitating public approval, reflected the goals and objectives of the economic and political elite, and supported the implementation of their ideological agendas.

Although ultimate public support for the park bonds was evident in the bonds' approval, there was also a strong dissenting voice among the citizenry at large. Opponents argued that government officials were acting out of self-interest by strategically locating the majority of parks in areas that improved the personal real estate value of the politicians (Seattle Mail and Herald 1905). These instances of civic response foreshadowed a future decentralized public participation approach, which was institutionalized within SPRD in later years.

From 1884 to 1914, a total of 109 parks were incorporated into the cultural and biophysical fabric of Seattle (see Fig. 1). The majority of parks acquired during this period were large open tracts; however nearly a quarter of parks were developed as playgrounds, playfields and boulevards. In the rapidly urbanizing cityscape, new parks served as tools for economic development and social refinement. They also served as sites for preserving and experiencing the natural amenities of the city. The process of achieving the Olmsted vision for an Emerald City was dominated by institutional and city elite decision makers. Underlying their desire for an economically prosperous, beautiful and refined urban environment was a perceived scarcity of money and land. As future developments unfolded, these concerns and prognostications were proven sage.

Period of competition and constraints (1915–1966)

Relatively little park acquisition activity occurred between the Olmsted vision period and the period of Urban Challenges. Two World Wars and the Great Depression, coupled with a citywide emphasis on other forms of infrastructure, such as highway development, left few resources for park planning within Seattle. The scarce city funds allotted to the SPRD during this period were used almost entirely to develop and maintain the properties acquired during the Olmsted vision period.

During and after World War I the economic and population boom of Seattle's early decades began to wane with a relatively stable local population of roughly 315,000 residents (Berner 1992). From 1915 to 1922, no new parks were acquired. The Seattle park system fared slightly better under the New Deal Programs implemented during the Great Depression of the 1930s. The Depression resulted in the merging of national and local political efforts to deal with the unemployed and relief efforts. With assistance from federal programs such as the Work Projects Administration and the Civilian Conservation Corps, the Seattle park system slowly expanded with the modest acquisition of 38 park properties between 1923 and 1944 (Berner 1992).

Although the wartime economy created by World War II caused a temporary economic upsurge for Seattle, the city and region returned to its economic slump following the war's end in 1945 (Sale 1978). Available fiscal resources were prioritized for the construction of a major north-south highway, which bisected the center of Seattle, requiring the intentional sacrifice of parks, boulevards, and neighborhoods.

The citizenry also demonstrated little support for the park system. Between 1952 and 1958, four bond measures slated to provide Seattle's park system with nearly $12 million for acquisition, development, and management were defeated by popular vote. The superintendent of parks lamented, "... this was an era of disappointments and failures" (SPRD Annual Report 1956). With little fiscal capacity to address the maintenance of Seattle's urban infrastructure, many parks fell into decay. From 1946 to 1965, only 45 park properties were acquired. During this period, there were inadequate fiscal opportunities and little public support to continue implementing the guidelines set forth by the Olmsted plan.

Urban challenges (1968–1983)

The period of Urban Challenges is characterized by a resurgence in public park acquisition driven by an increase in citizen and neighborhood-based participation in the park planning process. Concerned by the decaying condition of Seattle's urban infrastructure and predictions on the magnitude of future growth in Seattle these groups demanded more attention and money be provided for acquiring areas of remaining open space. The growing scarcity and increasing cost of available land began to exert pressures on park development, motivating creative approaches for re-developing land previously occupied by industries, municipal partnerships and other economically productive uses. These pressures resulted in the development of a diversity of park types across the city that reflected the character of the community they served (King County 1980).

During this period, the guidance for acquiring parks by the Olmsted plan was not explicitly utilized. Rather, the Olmsted plan was replaced with a focus on the city's decaying urban infrastructure. The city of Seattle also emphasized the integration of citizen needs in the overall planning process for park development.

Mired in an economic recession, Seattle experienced its first decline in population since the city was established more than a century earlier. Early profits gained from Seattle's entrance into the US and global economic markets following WWII soon waned. Seattle developed into a blue-collar city economically controlled by labor union politics, reliant on the abundant timber and hydrological resources of the region (Berner 1992). During these financially lean times, little attention was given to the development and maintenance of physical infrastructure and urban amenities.

By the mid-1960s an uneasy tension between Seattle's citizenry and government institutions increased as residents voiced concerns ranging from racial inequality to the overall physical decay of the city. Included in these concerns was the amount, quality, and distribution of parks within the city (Sale 1978). Many of these dissenting voices united under the community-driven initiative termed, Forward Thrust, which focused on assessing the impacts of future urban growth within the region (Forward Thrust Committee 1970). The community-based planning process supported by the Forward Thrust program led to the establishment of formal partnerships between residents and city departments, including the Parks Department. In 1968, Forward Thrust proponent James R. Ellis described the initiative as "...a partnership of people from every section of the County, every viewpoint and walk of life. This was not a citizen front for a program pre-determined by government" (Forward Thrust Committee 1968). A basic component of the Forward Thrust program was to empower the citizenry and provide them with an outlet to voice their concerns about the condition of the city in which they lived.

As part of the Forward Thrust movement in Seattle, a 'Committee of 200', that included city, county and local business leaders, spent 2 years determining the direction of development in King County. The committee emerged with an expensive 12-year capital improvement program package of 13 city and county propositions totaling an estimated appropriation of more than half a billion dollars, much of which would be used to secure matching federal funds offered for urban renewal projects (Vandenbosch 1974). The package included a proposed $385 million mass transit rail system, some $68 million for roads, $68 million for flood and wastewater control, $40 million for a sports stadium, and $118 million to be used to acquire, develop, and maintain parks across King County (Sieverling 1968; King County 1968). At the time, the Forward Thrust program was the nation's largest, per capita, public infrastructure improvement package (Sale 1978).

On February 13, 1968, six of the Forward Thrust propositions were approved by a public vote, including the parks proposition included (Conant 1968). Over the 12-year program, $44 million from existing state and federal sources further supplemented the $118 million bond for parks. From 1968 to 1982 over $41 million of related Forward Thrust funds were spent within Seattle for the acquisition of new parks and the maintenance and improvement of existing park properties. A decision to focus the acquisition of parklands early proved fortuitous as real estate prices escalated during the middle years of the 1970s. A total of 64 parks equaling more than 1,050 acres within the city were acquired during this 14-year period.

The majority of this land, over 700 acres, was acquired from the federal government in a 'Lands to Parks' program that transferred ownership of surplus federal land and decommissioned military bases to local and state governments around the country. Two facilities, now known as Discovery Park and Magnuson Park, were acquired by SPRD during this period and have become the largest contiguous tracts of parkland within Seattle. These large parks provide multiple open space functions including improved public access to shoreline areas and the creation of open spaces for informal play and sports fields. In addition, many of the decommissioned buildings on the site are used for arts, education, and cultural programs while several areas within these parks are being transformed through community-based attempts to restore the wetland and forest conditions. Other parks acquired during the Forward Thrust period range in size from roughly 140 acres of Puget Sound tidelands to small "vest pocket" parks of less than half an acre.

As development pressures and real estate values within and around the city increased, vacant city land was quickly becoming a scarce commodity, and condemnation no longer was a simple strategy of transference for development rights and ownership from private land into park management. Instead, the expansion of the park system required the creative development and conversion of already built lands into parks. An example of this conversion is Gas Works Park a former gas manufacturing plant located in a prominent location near downtown. Originally built in 1906 the plant became technologically obsolete and subsequently closed by the 1950s (Sherwood 1973–1981). The city of Seattle purchased the land in 1962, and by 1975 the conversion of the area from a previously industrial land use to dedicated park and recreation use was completed. Today the park retains the five-story high towers from the smoke-belching days of industrial use and remains one of the city's most popular urban recreational areas (Fig. 5).

Another example of this innovative creation of parklands includes Freeway Park. Built atop Interstate 5 using interstate air rights, the 5.2-acre park reconnects the financial center of downtown with the residential and business neighborhoods to the east (Sherwood 1973–1981). Completed in 1976, the project was supported through an array of sources including Forward Thrust bonds and state and federal highway funds. School properties presented yet another creative opportunity to convert lands for park use. SPRD, in partnership with the Seattle School Districts since 1948, implemented the "Grey to Green Initiative," a program that mandated SPRD to convert publicly owned asphalt surfaces to green surfaces for park use at selected school sites throughout the city. In this agreement, the newly formed parks were utilized by school children during the day and open to public use after school hours (Fig. 6).

The implementation of the Forward Thrust bond measures further altered the approach and management of the city's urban park system. As a countywide measure, emphasis for connecting the system of open spaces moved beyond Olmsted's vision of a locally interconnected urban park system to a broader regional context. For example, the Burke–Gilman Trail, which was converted from abandoned railroad tracks into a bike and

Fig. 5 Gasworks Park stands on an old Brownfield site. As developable land became increasingly scarce throughout the city, Seattle began reclaiming former urban wastelands and turning them into viable public park spaces (Source: Seattle Parks and Recreation)

pedestrian route bordering 35 miles of the western shore of Lake Washington, reflected the Forward Thrust agenda (Sherwood 1973–1981). Although the responsibility for the acquisition, development, and management of Seattle's park system still resided with SPRD, the objectives and priorities of the designed system were to be more inclusive of wide-ranging efforts to connect open spaces across the county.

The shift in park planning culture during this era included a stronger role for civil society in articulating their needs and desires for park spaces. And while the types and location of proposed parks differed by neighborhood, the ideology was similar: local participation was important in easing the tension between city government and local residents. The convergence of the politics of participation and the ideologies of park planning was further supported by the locally generated Forward Thrust bonds. In many ways, this era marked Seattle as a city with a park system driven by local needs, and guided by efforts of participatory, community-based planning.

Fig. 6 Representative of efforts to mitigate the negative impacts of urban infrastructure development, Freeway Park was built directly above Interstate 5 connecting the financial center of Seattle with surrounding neighborhoods (Source: Seattle Parks and Recreation)

Pocket parks in a global city (1995–2003)

This era is characterized by expanding ideologies within SPRD regarding the role of parks in the urban landscape of Seattle. Whereas the Olmsted vision promoted a sense of nature based on aesthetic value, the Pocket Parks in a Global City period promotes a functioning of nature based on a scientific understanding of ecological systems. The 1903 Olmsted plan is revisited, revised and expanded to reflect its application in a more densely settled urban area. While serving the recreational needs of Seattle's citizenry remains an important goal, a conservationist approach also infuses park management (Fig. 7).

The year 2003 marked the hundredth year of the comprehensive Olmsted park system plan for Seattle. Although the importance of the Olmsted plan in managing the park system was not apparent in the middle decades of the twentieth century, the plan and its guidelines experienced a revival in the mid 1990s and served as a critical element of SPRD's mission.

Patterns of globalization profoundly influenced how Seattle city boosters framed the function of parks as symbolizing the city's 'emerald' quality. Seattle now competed for mobile capital from transnational corporations with other cities in the Pacific Rim and elsewhere around the world (Gibson 2004). The marketing of Seattle's distinctly high quality of life emphasized the natural beauty and recreational opportunities provided by the region's environment, including parks. As in the Olmsted vision period, parks were utilized as an economic development tool to attract economic resources and investments.

Trends in globalization also influenced the fiscal capacity of the city and the funding mechanisms used to acquire parkland (Gibson 2004). During the Olmsted vision period, park acquisition was funded by locally generated tax money and through parcel condemnation and land donations. During Forward Thrust, local funds were supplemented by state and federal support. During the Olmsted Revisited period local funds were generated when Seattle residents approved the 2000 Pro-Parks Levy, worth $198.2 million, to acquire the land for more than 30 new parks, and to continue the development, improvement, and management of more than 95 already established parks. Then Deputy Mayor Tom Byers characterized the passage of the Parks Levy as the most substantial reflection of public support since the 1903 Olmsted plan. Once again, citizens of Seattle supported the financing of park development, reflecting how parks are valued.

The requirements and guidelines of the Pro-Parks Levy signaled important shifts in the priorities of park management agendas and acquisition decisions for SPRD. Broadening their environmental agenda, SPRD embraced a more ecologically oriented management strategy for parks. During this time S PRD created its first Wildlife Habitat Management Plan for the parks system in response to the desire expressed by the citizens of Seattle "to have wildlife as an integral part of the city, despite the pressures of human population and
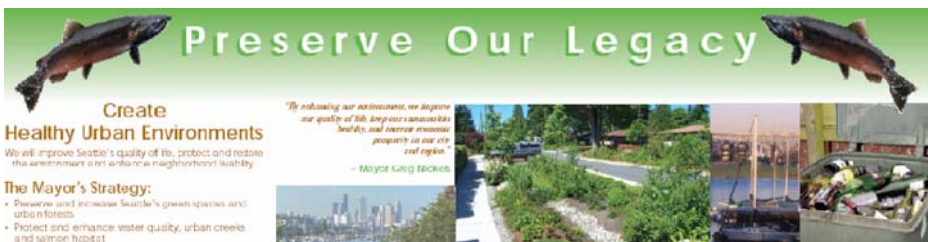

Fig. 7 During the most recent period of park acquisition, a distinct environmental consciousness informs the park planning process (Source: Seattle Parks and Recreation)

development" (SPRD 2000a). Park users wanted not only passive and active recreation opportunities, but they also wanted opportunities for observing urban wildlife species and experiencing "natural" settings, as well as the preservation of contiguous forested and green areas. SPRD's Urban Wildlife and Habitat Management Plan expanded the management goals of the agency "toward more natural and ecological resource management of parks than has taken place in the past" (SPRD 2000a). This management plan was consistent with the city's Environmental Critical Areas Policies and the Environmental Action Agenda, which called for the incorporation of environmental stewardship into all city actions.

The local desire for more wildlife and habitat oriented management efforts within SPRD was emblematic of the larger national conservationist and sustainability environmental movements which increasingly emphasized tree plantings, utilizing native plant species, and wildlife habitat protection efforts in the urban core. The influence of the environmental movement impacted the types of parklands that were purchased during this period. Land, which was previously considered useless and negligible, including steep slopes along forested ravines, was acquired to preserve the remaining open spaces within the city for wildlife use and habitat protection (Fig. 8).

The shift from a primarily human-centric management effort during the Olmsted and Forward Thrust periods, to a combined human and natural resource management focus was also reflected in the types of park improvement projects implemented by SPRD. For example, in the early 1990s the management for Schmitz Preserve Park shifted to a larger ecological agenda, which included daylighting a small stream flowing through the preserve. The original intention of the preserve—the protection of the oldest growth in the city—has been maintained over time through the incorporation of new ecologically oriented management tools.

In 1990, the Washington State legislature found that "uncoordinated and unplanned growth, together with a lack of common goals. ... pose a threat to the environment, sustainable economic development, and the health, safety, and high quality of life enjoyed by residents of this state. It is in the public interest that citizens, communities, local governments, and the private sector cooperate and coordinate with one another in comprehensive land use planning" (RCW 36.70A.010). The 1990 enacted GMA represented a revolution in Washington State land use planning. The key substantive element to the 1990 GMA was a financial and political commitment to support "urban growth areas into which all urban and suburban like growth will be directed and outside of which none will be allowed" (Smith 1993). Washington was one of the first states to direct counties and cities to work out the details of an urban growth boundary. The key procedural

Fig. 8 The Duwamish Greenbelt is indicative of many recent park purchases and acquisitions. Steep ravines and corridors have been integrated into the citywide mosaic of parklands. These parcels are not specifically designed for human use and access. Instead they are intended to serve as important wildlife habitat areas and industrial buffers (Source: Seattle Parks and Recreation)

element in this new planning system was the mandate that each county experiencing growth problems create a comprehensive plan through a cooperative process with each of the cities and towns within the county.

Thus, the political context in which parks in Seattle were acquired, developed, and improved, changed in response to an increasingly urban and densely populated landscape. With the legal mandate to intensify development within the UGB boundary, the goals of the SPRD shifted to prioritize the purchase of small neighborhood, pocket parcels to maintain and provide additional open space within the UGB, and to maintain existing larger urban parks. SPRD acknowledged that the "partnerships in the community are critical to identifying priority properties, potential uses of acquired sites, and additional resources" (SPRD July 25, 2005, p. 8). The first cycle of the Levy's $10 million Opportunity Fund included 16 citizen-initiated park acquisition and development projects. As of 2003, the Levy purchased six neighborhood sites for pocket parks. In many ways, the GMA facilitated the institutionalization of citizen participation in the process of park planning.

Park development was placed in direct conflict with the need for other forms of urban amenities and infrastructure. In 1997, the mayor decided to sell part of a playfield to developers for middle-income, single-family homes (Seattle Times 1996). In response, citizens supported Initiative 42, preventing the sale of parkland for non-park use, unless equal or better replacement was provided. The mayor's pre-empted actions signified the city's persistent fiscal struggle to provide for multiple and oftentimes competing forms of urban infrastructures, including affordable housing and park space.

Citizen involvement regarding proposed park use continued to evolve. In 1985, SPRD created an advisory board for concession related grievances when a local neighborhood opposed the selling of alcohol by a park concessionaire (Seattle Times 1985). During Forward Thrust, SPRD used a neighborhood-based planning approach to define the location and type of future park development. SPRD worked with these neighborhood groups as consultants, not as park planning experts. By the 1990s, SPRD established 24 neighborhood advisory councils that provided a forum for testing new program ideas; and by 1991, this local, decentralized planning process for parks was the norm. In 1993, SPRD restructured its management to reflect the decentralized planning approach by programs and park planning efforts under the management of three geographic divisions of the city (Seattle Post-Intelligencer 1993). SPRD no longer provided, and citizens no longer desired nor expected, the top-down, expert driven model of park development. This period of citizen participation was marked by increased leverage of citizen groups to promote specific agendas. "Friends of Parks" groups mobilized around park-specific issues, and used their collective bargaining power to demand certain amenities for parks from SPRD. In the 2000 update to 1993 Department of Parks and Recreation comprehensive plan (COMPLAN), SPRD defined its primary fundamental responsibility as "listening to the citizens ... and involve them from the beginning in decisions affecting the future of their parks and recreation system, especially in their neighborhoods. Implementing recommendations from neighborhood planning activities and the community initiated efforts to improve the Seattle park system" (SPRD 2000b).

During this period 95 parks were acquired and developed, only 14 fewer than during the Olmsted vision period. The 1903 Olmsted plan was integrated into a re-visioning of recreational park spaces in the city and region. Instead of treating the Olmsted plan as a static historic plan without relevancy for contemporary Seattle, SPRD strategically incorporated aspects of the Olmsted plan that best fit the unique political, cultural, and economic context of each time period. Such a flexible, opportunistic attitude towards the

implementation of the Olmsted plan was necessary for its persistent, if discontinuous, influence on park development in Seattle. Importantly, city politicians and citizens continued to give high priority to parks, reflecting the initial valuation of green and open spaces articulated in the 1903 Olmsted plan. Seattle's 2000 COMPLAN update states: "Planning for parks and recreation must be sensitive to the stresses and complexities of urban life, flexible to changing conditions, and be a part of the city's overall growth strategy" (SPRD 2000b).

The parks themselves are the physical legacy of the history of park planning in Seattle. Through the lens of politics, economics, and culture, the presentation of these historical narratives reveals trends and contingencies that influence the production of a citywide park system.

Discussion

The organization of Seattle's park history around three themes—the economics, politics, and culture of park planning—allows us to understand planning approaches, various funding strategies, and city development agendas during the four eras of park planning. Furthermore, we can identify emerging trends and the influence of historical contingencies. Through this analysis we recognize the interrelatedness of these three themes and their collective explanatory power for understanding the process of park development in Seattle. These themes shed light on important factors influencing the rate and type of parks acquired in Seattle. Urban ecologists can utilize historical insights in order to better appreciate contemporary and future urban landscape change in the context of shifting economic, political and cultural conditions.

Politics of park planning: From Frederick to friends

The history of park development in Seattle has been marked by changes in how city residents and SPRD engage in the process of park acquisition, development, and maintenance. The changes in the relationship between SPRD and city residents reflect an overall national trend toward decentralized planning, with contemporary citizen groups influencing management action priorities. Today, the Seattle city government is renowned for its model of participatory planning protocols. The theme of accessibility effectively captures these shifts. Accessibility, as we view it, occurs along two lines: access to the political process of park planning and the creation of accessible park use (accommodating diverse park uses and users).

Planning for accessibility evolved from a top down policy model with limited public access to a more accessible and participatory civic engagement process. During the Olmsted vision period, the Board of Park Commissioners and the early Parks Department consisted of a collection of city and technical elites; largely members of upper echelon urbanites held park planning decisions. Likewise, the Olmsted Brothers firm planning model espoused an elite driven, expert dominated approach. Although this top-down planning process was framed as serving the public good, the primary opportunities for city residents to participate in park development was limited to voting on proposed park bond issues and through the donations of private property for park use.

In contrast, the Urban Challenges period was marked by an intense degree of public participation in identifying the location and type of future parks. During Forward Thrust, citizens organized around an infusion of state and federal money into the local and regional planning process, with SPRD functioning as experts to the neighborhood planning effort. As public participation persisted and demand for such participation grew, SPRD institutionalized this new form of citizen engagement with the establishment of committees and guidelines. This shift in the relationship between SPRD and city residents reflected the overall trend in municipal governance towards decentralized planning.

During the Olmsted vision period the Seattle citizenry experienced an increase in accessibility to the park planning process. Formal community participation institutionalized during the early 1970s created a more open and inclusive planning process. Citizens established 'Friends of Parks' groups that operated external to institutional planning efforts and organized around specific parks in the city. As a decentralized model for participatory park management, 'Friends of' groups have leveraged their collective resources to advocate for specific amenities and management actions.

Accessible park use (accommodating diverse park uses and users) increased as the city's ideological hold on acceptable park use expanded. By the end of the Olmsted vision period, there were numerous small and well-dispersed parks. Parks and playgrounds were perceived as spaces for tacit forms of social control, designed to refine and humanize the population and provide a limited diversity of uses (Cranz 1982; Olmsted 1971; Sutton 1971). With the participatory planning forum in place during the Urban Challenges period, an increased diversity of park types were produced which, in turn, created a more accessible park-planning approach. Consequently there was an emphasis on social equity of park access, with greater attention given to neglected communities by strategically identifying park space and park uses for underserved neighborhood communities. This led to an increase of not only a diversity of park uses in the city but also to a diversity of park users.

Multiple scales of economy: Encountering scarcity and opportunity

Perhaps no other factor contributed more to the acquisition of parks, and to the formation of acquisition periods, than the availability of financial resources. The history of Seattle's park development is largely influenced by a series of fiscal restraints and opportunities. As Seattle's park planning history reveals, any assessment of the ongoing struggle to secure fiscal resources must examine economic interactions across local, regional, and global contexts and the impacts of these multi-scalar economies on the financing of parks. In the early 1900s, the park planning process mostly depended on a local economy that supported park acquisition and maintenance through the donations of local landholders and city funds. Although this money was generated locally, the city's wealth arrived only a few years earlier as part of the post-gold rush regional resource market expansion. A direct intra-regional economic competition between Tacoma and Seattle fueled Seattle's efforts to attract money and investors. This regional economic competition influenced the approval of local bonds that provided the bulk of the money for Olmsted plan's recommended purchases and designs.

During the Urban Challenges period, an infusion of matching state and federal funds into regional and local planning projects was necessary to overcome escalating land values and local fiscal restraints. Beginning in the mid-1990s, when the Olmsted plan was revived, the city of Seattle still faced budgetary fiscal constraints similar to previous periods. The Pro-Parks Levy was approved in 2000 and once again citizens allocated

monies for park purchase and maintenance. The Pocket Parks in a Global City period can be seen, in large part, as a return to a dependence on locally generated funding streams. However, instead of being derived primarily from urban elites and major landholders, as was the case in the early period, this purchasing power was derived from the public at large, through a complex set of city tax arrangements.

The establishment of Seattle as a regional economic power, which was the goal of urban residents and boosters during the early Olmsted vision period, expanded during the Pocket Parks in a Global City period. While parks had always been used as an economic development tool by the city and private developers, the link between Seattle and international markets generated new opportunities for park development. Public and private interests around the city viewed parks as a valuable tool to effectively market desirable qualities of Seattle to transnational corporations and an international labor pool.

Park planning culture: Getaways, lungs, and global markets

Dominant ideologies of park planning influenced the allocation of fiscal resources and, to a great extent, the vision of parks functioning within the city. The ideologies of park planning in the earliest period were characterized by the initiation of the 100-year, comprehensive Olmsted plan and the influence of Seattle's regional economic agenda to become the economic center of the Pacific Northwest. Parks in the city were viewed as places for humanizing, sophisticating and refining the urban citizenry. Parks as sites of refinement required harnessing and utilizing aesthetics of the natural environments. Ravenna and Schmitz parks were designed as urban 'getaways' while others like Volunteer Park were established in part to serve as aesthetic 'portals' to the surrounding water, mountain and wilderness areas. These ideologies of park planning emphasized the progressive pursuit of social health and refinement simultaneously with the beautification of the city and romantic notions of nature.

Park planning efforts during the Urban Challenges period were couched within a broader context of urban infrastructural decay. Parks were thought to contribute to the salubriousness of the city. As part of an urban regeneration project, parks infused new spaces of vitality throughout the city neighborhoods and were viewed by many residents and politicians as the "lungs of the city." The planning culture of the Pocket Parks in a Global City and Olmsted vision periods both viewed city parks as tools for economic development. In the Olmsted vision period, parks were used to attract potential residents to Seattle and to newly developed neighborhoods. To the national and international audience, parks were used to market Seattle as a unique and livable urban area within the global market.

With the revival of the Olmsted plan, many original Olmstedian principles, including connectivity of green spaces, access to park spaces, and a public health focus for parks, are still of concern to SPRD and city residents. However, the ideologies of SPRD have expanded the early Olmstedian vision for connected green spaces and sophisticating recreational use with the incorporation of an explicit ecological agenda, which operates in concert with social programs.

The persistence of the Olmsted plan in the shifting cultural ideologies of park planning reflects the capacity of SPRD to embrace the Olmstedian principles and goals while recognizing the context of an evolving urban system where constraints and opportunities for securing funding and initiating park development vary over time.

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Conclusion

Integrating analytical approaches and epistemologies from the humanities
into urban ecology

We take seriously the call for a "unity of sciences and humanities" as the "backbone" of urban
ecology (Alberti et al. 2003). We operationalize these notions and articulate advancements
within the field of urban ecology along two tracks: an integration of historical place-based
analytics and a practice of interdisciplinary research. The field of urban ecology provides a
rich and diverse platform from which to ask a multitude of research questions. Urban
ecology's inherent interdisciplinarity or "integrated approach" is outlined by numerous
scholars (Pickett et al. 2004; Alberti et al. 2003; Collins et al. 2000; Grimm et al. 2000;
Zimmerer 1994). This convergence of multiple disciplines has led to a flurry of literature by
these scholars on how to combine the research agendas of the social and natural sciences to
address a more holistic consideration of the ecology "of cities" (Grimm et al. 2000).

　　We recognize that the majority of research questions asked by urban ecologists seek to
organize and explain variables in ways that reduce them to a series of generalizable, well-
defined patterns and processes. While these approaches are highly valuable and contribute
to a robust understanding of urban systems, we offer a complimentary approach by
including forms of evidence and explanation that are idiographic. We suggest that there are
benefits to an urban ecology that accommodates explanations and descriptions, intentions
and unanticipated outcomes, place-based and generalizable findings. After all, if the field of
urban ecology is to be profoundly interdisciplinary, it necessitates an integration of different
methods, theories, and epistemologies.

Improving our understanding of cities: Place-based historical analysis

Utilizing an explicitly historical and place-based approach we extend an integrated study of
human and ecological systems over 120 years of park planning in Seattle. In doing so, we
build upon the model put forth by Alberti et al. (2003) which integrates humans and
ecosystem science by linking "human and biophysical drivers, patterns, processes and
effects" (p. 1174). This approach to urban ecology reveals both the spatial changes in land
development from non-park to parkland, and the rich tapestry of influential political,
economic and cultural processes.

　　While a place-based approach to urban ecology can lead to a profound understanding of
the nexus between city culture, politics and economic processes, a historically grounded
approach elucidates the relationship between these processes as they change over time and
interact through various citywide developments (see Table 1). Indeed, two recent ideas
promoted in urban ecology, 'cities as systems of resilience' (Pickett et al. 2004) and 'cities
as emergent phenomenon' (Alberti et al. 2003) can be more effectively revealed within a
research agenda that incorporates long-term changes within urban systems. Our study
illustrates how a historical and place-based analysis reveals changing governance structures
and ideologies, while also allowing for a more precise documentation of how these
structures and ideologies function as emergent and variable sources of political influence.
Moreover, examining a 120-year time period enables important scalar economic relation-
ships between city, regional, and federal programs to be revealed.

　　From the early sophisticating aesthetics of the Olmsted firm to the locally derived multi-
use and ecologically oriented park plans found today, changing structures of political

Table 1 The economic, political, and cultural aspects of park planning for each era of park planning in Seattle, WA, and the specific outcomes associated with each era of park planning

	Olmsted vision (1884–1913)	Competition and constraints (1916–1966)	Urban challenges (1968–1983)	Pocket parks in a global city (1990–2003)
Economics +	Parks are acquired by SPRD through land donations, condemnation, and locally generated funds totaling $5 million	Despite a regional economic surge during WWII, the economy of Seattle slumped, and fiscal resources for park acquisition were scarce	Matching state and federal funds bolsters locally generated monies from the approved parks proposition of the Forward Thrust program	Locally generated money from the approved Pro Parks Levy. Competition between forms of urban infrastructure. Citizens pass Initiative 42, preventing the sale of parkland for non park uses
Politics +	The process for planning for the parks system is dominated by city government and economic elites	Other forms of urban infrastructure development such as highway construction are prioritized over the park planning process	The parks planning process shifts towards a more community-oriented participatory planning approach	SPRD institutionalized participatory planning process and adopted a decentralized organizational structure
Culture +	Urban parks are viewed as both economic attractors to speculative investors as well as a social refinement tool	Little public support was afforded to the park system as much of the public open space, including parks, fell into decay	The diversity in types and use of parks in the city increases to accommodate multiple perspectives and community desires	Maintenance of pre-existing parks and development of pocket parks in high-density residential neighborhoods. Parks are managed for social and ecological uses. Parks viewed as a tool for economic development in the global economy
Outcomes =	SPRD accepts and implements a 100-year plan for Seattle's park system developed by John C. Olmsted in 1903. Parks are incorporated into the urban form of the city	The public defeated four bond measures between 1952 and 1958 that would have provided nearly $12 million in park-specific funds	Seattle and King residents approve a major urban renewal program known as Forward Thrust in 1968	Seattle residents approve 2000 Pro Parks Levy. Centennial celebration of Olmsted Plan

representation have influenced the process and outcome of park planning. Moreover, the city of Seattle has overcome fiscal and land scarcity in creative ways and has utilized park space strategically to elevate its image and competitive position within broader economic agendas. Under a place-based historical analysis the park landscape within Seattle can be viewed as a legacy of these shifting strategies and conditions.

Practical benefits

By implementing a historical approach to urban ecological research this study reveals the influence of a 100-year comprehensive plan as it evolves through long periods of absence and periods of renewed interest. Accounting for long-term trends, cyclical patterns, and historical contingencies enables us to reveal practical insights that are useful for urban planners and practitioners. We illustrate that the viability of long-term plans requires flexible and adaptive application in the face of unpredictable events, changing political arrangements, and shifting cultural priorities and fiscal climates. Understanding dynamics that support and challenge long-term planning efforts is typically not provided in temporally truncated studies.

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