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The Ecological Park as an Emerging Type [Research and Debate]

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The Ecological Park as an Emerging Type

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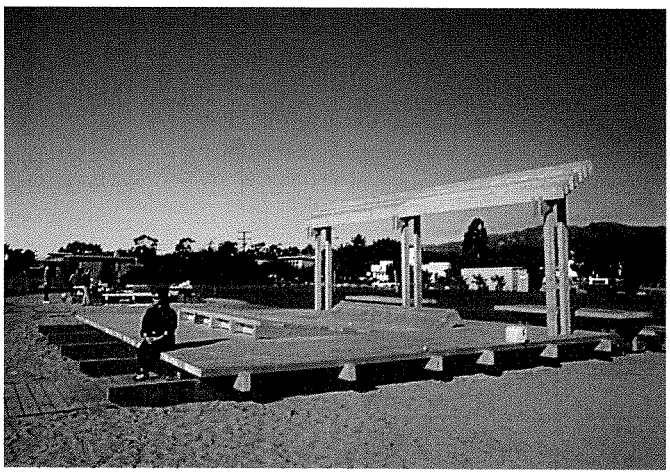

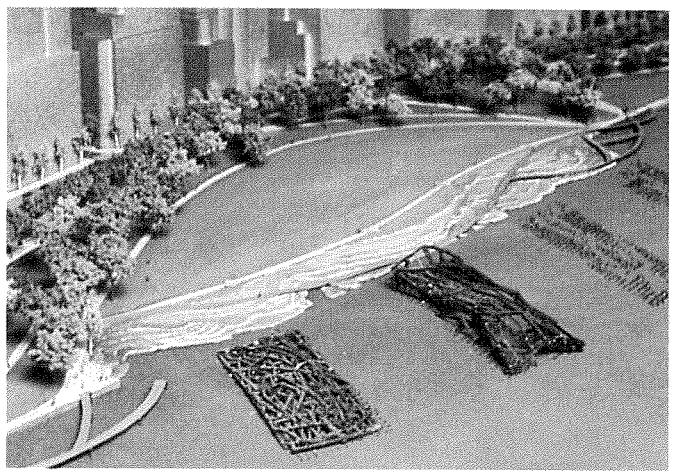

Each generation has its own set of ideas about how parks can help cities, their own experience in putting these ideas into practice, and their own frustrations and victories with those models. Reflecting this view, in the 1982 book *The Politics of Park Design* Galen Cranz developed four ideal types to describe changes in urban parks over the last 150 years.[1] Her typology included consideration of both the shifting social purposes that parks have been imagined to address and corresponding variations in designed form. The four types of parks were the Pleasure Ground (1850–1900), the Reform Park (1900–1930), the Recreation Facility (1930–1965), and the Open Space System (1965–?).

Today, we find ourselves reevaluating conventional ideas about nature, shifting away from a model that opposes nature and culture toward a one that conceives of humans as a part of an integrated ecological whole. In the design professions this new orientation has brought a surge of concern for what has come to be known as "sustainable development" and "ecological design." In terms of urban park design, we believe this shift has brought us to the verge of a new era.

Can parks help create more ecologically balanced and sustainable cities? The prior history of urban parks reveals concern with social problems and with the idea of nature.

Top left: Turf greenswards in Louisville's Summit Field were replanted with native prairie grasses to reduce runoff and increase the ecological health of the landscape. Only paths are mown to delineate how visitors should move through the space. Photo courtesy of Andropogon Associates, Ltd.

Top right: Alan Sonfist's "Time Landscape" in lower Manhattan treats secondary plant succession as an art piece. Photo by Michael Boland.

Bottom left: Viewing platforms with built-in lounge chairs in Santa Barbara, Calif., entice those who want to watch the sunset away from the cliff edge, protecting it from erosion. Photo by Galen Cranz.

Bottom right: Model of an ecological park design proposed in 1991 as part of New York City's Riverside South development. The design was the work of a group of four artists (Mary Miss, Joyce Kozloff, Mel Chin and Fred Wilson), selected to work with the development team. Photo by Galen Cranz.

But parks have never been purpose-built based on overt concern for ecological fitness. However, the present conflation of ecological and social concerns may be changing all that. A new urban park type, based on providing solutions to ecological problems and expressions of the human relationship to nature, beckons.

Past Park Models

If a new park type lies in our urban future, how will it reflect the ongoing evolution of American attitudes toward such issues as nature, health and recreation? The first urban park model identified in *The Politics of Park Design* was the Pleasure Ground. Roughly speaking, its era of popularity spanned from 1850 to 1900. The Pleasure Ground was typically a large park located on the edge of a city. It followed a pastoral ideal, with its buildings clearly subordinate to landscape values. This is the kind of park we associate with Frederick Law Olmsted, and its purpose was to simulate nature or the countryside; but this was not supposed to be "wild" nature. Rather, its design encouraged a certain kind of mental appreciation of the landscape, which is sometimes mistaken as its "passive" component. A better word might be "contemplative." As sports became increasingly popular, these parks also became more actively programmed.

Pleasure Grounds presented a number of problems for the next generation of park designers. Most importantly, because they were usually located on the edges of cities, the working class never got to use them. For about ten years at the end of the nineteenth century, therefore, an effort was made to translate the landscaping principles of the Pleasure Ground to smaller parks closer to the tenement districts where working people lived. But this movement didn't last long, and its reform energy soon merged with that of playground advocates. The result was the Reform Park, which provided recreation and socialization space for adults and special play environments for children. Such parks were small, symmetrically planned, and offered little illusion of countryside or nature. Their principal architectural innovation was the fieldhouse, which was meant to provide a clubhouse of sorts for the working class.

In 1930 a new era was ushered in when Robert Moses was appointed Commissioner of New York City's Parks Department. Moses claimed "We'll make no more absurd claims about what can be accomplished with parks, but rather, fulfill the mandate to provide recreational service." His programs typified the third era, from 1930 to 1965 — that of the Recreational Facility. To justify their expenditures, earlier park planners had enumerated all the things that were being accomplished in parks — reducing class conflict, socializing immigrants, stopping the spread of disease, and educating people. For Moses, parks were a recognized governmental service needing no justification. The emphasis instead turned to establishing government norms and extending service to the suburbs and urban areas that hadn't yet received a standard of treatment.

As it did in many other areas of American life and culture, the mid-1960s saw another major shift in park design. In particular, recreation came to be seen as something that could take place anywhere — in the street, on a rooftop, at a waterfront, along an abandoned railway line, or in a more traditional plaza or park. In defiance of previous notions of government standardization, a more artistic, participatory sensibility emerged, prompting a closer tie between park programming and popular culture. As a result of these changes of view, parks came to be conceived as a network of disparate, public-serving, participatory facilities. Thus was born the fourth American parks model identified by Cranz — what she called the Open Space System.

Research Reveals a Change

Historically, American urban park models have lasted thirty to fifty years. Since well more thirty years have elapsed since the emergence of the Open Space model, one might suspect the time is ripe for a change. Based on this assumption, in 1997-98 we began to investigate whether a shift in park design might actually already be occurring. The initial work took place in a Graham Foundation-funded graduate seminar at the University of California, Berkeley, aimed at "Defining the Sustainable Park." We began by analyzing the parks published in a number of prominent landscape publications over the previous twenty years, attempting to determine whether a discernable shift was taking place in the philosophical underpinnings, ideological claims, and problem-solving goals of park planners. If so, we believed that the processes of institutionalization by park departments and evaluation of the social and ecological effectiveness of new practices would most likely follow.[2]

Our analysis eventually indicated that examples of all four past park models had been published during the preceding twenty years. Pleasure grounds (22 percent) and open space systems (43 percent) predominated. Interestingly, we found that the second largest number of parks (24 percent) fit into a new fifth category, which we tentatively identified as "ecological." These parks had several traits not characteristic of the previous four types, including the use of native plants, restoration of streams or other natural features, integration of "appropriate" technologies or infrastructure, recycling, community-based

stewardship, and restoration of wildlife habitat and native plant communities.

We further discovered that most (91 percent) of the parks exhibiting such traits had been published after 1991. This was significant to us, since these innovations were coming twenty-six years after the shift to the Open Space ideology. We therefore predicted that the Ecological Park model was likely to be widely adopted by municipal park departments by 2015. As if to bear out this prediction, we have observed over the last few years a significant drop in the number of new pleasure grounds as the number of ecological parks has increased.[3]

What will the new urban Ecological Park be like? Our research to date indicates that these parks will differ from their predecessors in four important ways that have less to do with how such parks look than how they perform. First, such parks will become more efficient and self-sufficient with regard to material resources. Second, as they are integrated into the surrounding urban fabric, they will play a role in solving larger urban problems. Third, they will model new standards for ecological aesthetics and management. And fourth, they will employ new formal and aesthetic qualities, both in terms of landscape and architectural forms and in terms of their relationship to city around them.

Our research indicates that attributes of the fifth urban parks model clearly set it apart from previous models. And in the following section we will attempt to describe how some of these might work together on the ground. Like its predecessors, the Ecological Park envisioned here is an ideal type. It represents a summary and collation of features of ecological parks we have studied, and it embodies qualities that have yet to be built into parks but which are implicit in ecological theories. No one park will have all of these qualities and features; neither is this intended as an exhaustive description. It is offered here to provide a glimpse of what the future may hold.

Features of an Ecological Park

The Ecological Park could be anywhere — of any shape, any size. Organizing geometries may be rectilinear, curvilinear or naturalistic since it is not its look that matters so much as its biological functioning. At its best, each park connects fragments of open space into a comprehensive network, both to increase human well-being and benefit natural systems. The Ecological Park strives to realize an older vision of the city as a garden, blurring the distinction between the two. Yet it also employs the most up-to-date methods to minimize such impacts of city life as urban runoff, air pollution, and traffic noise. Through the design of healthier open spaces, it echoes the nineteenth-century notion of parks as the "lungs of the city."

Ecological parks aim at self-sufficiency. Plantings rely on native and/or regionally appropriate species to reduce the need for human intervention. Exotic species are avoided, and turf is planted and managed to suit the site and social circumstance. Open meadows that function primarily as a visual resource are planted with a mix of native grasses and allowed to grow to full height. Even pathways and fields that are heavily used are only mowed to 5–7 inches, although judicious mowing at the edges of meadows allows visitors to appreciate how they represent a desired effect rather than a lack of maintenance. Sheep are reintroduced to do the mowing where practical, and when the herd needs to be thinned, some of them may be shared at community barbecues. Flowers are sometimes medicinal herbs. They provide habitat for birds, bees and insects — even when purely ornamental from a human point of view.

Compost is an important part of the Ecological Park. Indeed, it is elevated to the status of an aesthetic, as environmental artists work with maintenance departments to develop fascinating patterns for managing the piles of organic matter that come from park leaf and branch debris. These in turn provide subject matter for fine-art photographers. Park compost is also used to amend impoverished urban soils in community gardens and in mini-farms designed to employ members of the urban underclass. Local youth are trained to operate volunteer programs in these community gardens and to assist in the maintenance of the park at large.

Stormwater and graywater generated in the park and surrounding areas is collected, stored and cleaned in flow forms and ponds. Water-loving plants there support animal life — including amphibians like frogs, whose future might otherwise be endangered. Sometimes fountains express the joyful final stages of water purification.

Buildings in the Ecological Park are carefully sited to be close to mass transit and bike routes. They are built of recycled or less energy-intensive materials, and make use of solar heating and natural cooling and ventilation. They use composting toilets and rely on natural day-lighting inside. Their restaurants serve organic produce from the park's own vegetable gardens. Swimming pools use the latest nontoxic chemical disinfectants. They are heated with solar energy and constructed of flycrete (a less energy-intensive alternative to regular concrete).

Parking lots are minimum, but where they are necessary, they are paved with permeable materials, such as open pavers that allow grass and plants to grow through in honeycomb patterns. Permeable blacktop lets rain sink

into the ground without running off. Pathways for foot traffic are differentiated, but favor softer, more organic materials (crushed gravel being preferable to cement, for example). The center of a pathway may be paved to accommodate roller skating, bicycling, and wheelchairs, but its edges may use combinations of crushed gravel, wood timbers, or chips for aesthetic and kinesthetic benefit.

Fencing is used more to regulate the flow of traffic than to keep people out. In order to enhance their "come hither" message, fences are planted with beautiful vines, which may produce food, herbs or flowers. Fence materials such as metals, post-consumer plastics, bamboo, and wood are evaluated based on long-term environmental costs.

Night lighting is minimal, powered by solar collectors and wind generators (adapted to keep birds from flying into them). The feral cat population is strictly controlled to protect birds and other wildlife.

Benches and play equipment use more body-conscious design than has been the case to date in American public places. Perches and lounge chairs replace traditional park benches. The landscape is designed to encourage people to use their whole bodies rather than just their eyes. Cognitive scientists and movement artists work together to create self-revealing experiences and demonstration projects.

There is continued attention to fitness and sports, contemplation and appreciation of nature, community building and celebration, culture and art in the Ecological Park. But these things are pursued with a new sense of multiple benefits and broadened scope. The science and art of landscape development is better understood by the public through education programs and community-based stewardship.

In general, the community plays an expanded role in the management and evolution of the park, breaking down traditional barriers between expert bureaucrats and citizens. The financial and practical aspects of horticulture and ecological restoration are based on science, expressed artistically, with citizens benefiting as participants, volunteers, or employees.

An Emerging Vision

Taken to its logical extreme of "city as park," could the Ecological Park model ultimately mean the end of the discrete urban park we have known these last 150 years? How do we distinguish urban parks from other types of green urban open spaces — stormwater retention basins, bikeways, continuous suburban corporate landscapes, and the like? Any discussion of urban parks raises definitional problems beyond the scope of this article. Nevertheless, we believe a fundamental shift is underway in the social goals and forms of urban parks. A new, fifth model, the Ecological Park, is emerging.

Nevertheless, if a new ecological model of parks is now developing, so, too, is our understanding of such places. We have tried here to be comprehensive in our thinking, but we do not presume to have arrived at an exhaustive list of characteristics. Rather, we hope to "en-courage" conversation and reflection. And we invite others to add to our list of characteristics, and to reorganize them as they feel inspired and/or compelled. Most of all, in the years to come we hope to witness the continuing evolution of these ideas on the ground.

Notes

1. Galen Cranz, *The Politics of Park Design: A History of Urban Parks in America* (Cambridge, Mass.: MIT Press, 1982).

2. We should note that these principles have not emerged simply in response to larger social forces. Many park planners and landscape architects have been proactive in shaping the broader scientific and artistic values of sustainable design practice.

3. The more detailed findings of our research are contained in a longer paper, "Defining the Ecological Park" (under review with *Landscape*). That paper also includes more detail on how such parks perform, and provides specific examples from some of the parks we have studied.