

## Chapter 2: Appreciating urban wildscapes

### Towards a natural history of unnatural places

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The ecosystems of a given place reflect the response of living organisms to their environment (Bradshaw 2003). Woodlands can become wetlands with too much moisture and grasslands with too little; increases in elevation can turn a deciduous forest into a coniferous one; and fire and other disturbances can set back a climax community to its early stages of ecological succession. The sum total of these environmental influences results in a place's biodiversity, and while the study and description of these processes and their expression in the living landscape is usually considered the business of the ecological sciences, humanistic narratives that construct the unique ecological stories of a place in order to build appreciation and support for ecosystem protection might more appropriately fall into the domain of natural history.

The recent book, *A Natural History of the Chicago Region*, provides a good example. Written as a 'seventeen-year labour of love' by nature writer and long-time local conservationist Joel Greenberg (2008), the 595-page book tells an engaging story about the native ecosystems and species of the region. Using thick description of people connecting to place over time, Greenberg details the character and history of the prairies, savannas, forests, and other ecosystems, flora, and fauna indigenous to the Chicago region; describes their beauty and utility; and in chronicling their decline, builds a compelling case for their restoration. But while Greenberg's natural history goes far to develop an understanding and appreciation of the native ecosystems of the region as they once existed, his approach to natural history gives little insight into how the forces of the human environment and its legacy of settlement and urbanization have worked to shape the living landscapes that now dominate the region. Wildscapes, complexes of spontaneous 'ruderal' (hardy or weedy pioneer) vegetation that colonize disturbed urban sites, as detailed by the various authors in this book, are not recognized in Greenberg's nomenclature except as threats to the native landscapes he identifies, and thus the appreciation we come away with for the *region* of Chicago is one that has no *city* of Chicago in it. This approach may work when read as a strictly historical narrative, but even for those who are focused on protecting and restoring native landscapes it offers little guidance for moving forward in the light of the radically changed soil, temperature, surface water, and other conditions that now occur.

The young field of urban ecology offers clues to how a more robust natural history of urban regions might be constructed, a natural history that recognizes wildscapes as the living landscape's response to environmental conditions common in cities. Urban ecologists make little differentiation as to whether a given condition or process is of human or natural origin, and with much of the early work in the field coming from Europe, the long history of dense human settlement there makes distinctions such as 'native biodiversity' less meaningful (Del Tredici 2010). Adopting this same perspective in writing the natural history of urban places could, I believe, lead to a better understanding of wildscapes as legitimate green space types for protection, use, and appreciation. In this chapter I highlight four major types of human-created green spaces in the Chicago region and present a brief case study example of each, focusing on their wildscape components as found within the City of Chicago. These landscapes differ from the ecosystems described by Greenberg, yet my intent is to examine them in a similar way as particular land types having evolved communities of flora and fauna that are worthy of deeper understanding and appreciation. Being neither a natural historian nor an urban ecologist severely limits the insights I can bring to such an endeavour, yet by drawing on previous research and personal observation, my aims are to outline the beginnings of a framework within the scope of this chapter and highlight the potential of such an approach for further scholarly attention.

### **METROPOLIS'S NATURE: FOUR CHICAGO WILDSCAPES**

Although Greenberg's book provides the initial impetus for writing a natural history of Chicago wildscapes, it is environmental historian William Cronon's *Nature's Metropolis: Chicago and the Great West* (1991) that helps place wildscapes within the broader understanding of the relationships between people and ecosystems. Cronon's interregional analysis describes how Chicago as a city grew and prospered as a result of its location at a biotic crossroads, and the ecosystem diversity described and venerated by Greenberg is shown by Cronon to be the root cause for its growth. Pine forests to the north provided a ready supply of lumber for building, prairies to the west forage for cattle, and the Mississippi and Great Lakes waterways a means to ready access and transport. Once connected by canals and then railways, Chicago became the great machine for processing the raw materials of nature and transferring them to eastern population centres for consumption.

But just as Chicago stands as exemplar of the city as created by nature, so, too, does it reveal how nature is then created by the city, albeit a nature that reflects the city's distinctly human image and purpose. Thus, the broad scale patterns and processes discussed in Cronon's interregional analysis are taken down in scale to the major types of green spaces within the city perceived and used by people on an everyday basis. In Chicago, this includes dedicated parkland and other purposefully designed public green spaces, green edges along water and

land transportation corridors, small-scale patches of undesignated green space in neighbourhood residential and commercial areas, and medium- to large-scale patches of post-industrial land. In the sections that follow, I describe the evolution and existence of wildscapes within each of these four green space types and provide a case study example of how such spaces have been dealt with by the people who interact with them. By considering these spaces as the response of living organisms to their human dominated environment, I then suggest how we might develop a better appreciation for wildscapes in addressing particular issues and problems.

### **FILLED-IN NATURE: WILDSKAPING THE LAKEFRONT PARKS**

While the rich intersection of land and water resources had long made the Chicago region a strategic place for people, large-scale settlement of what is now the City of Chicago did not come until there was extensive modification of the flat, marshy landscape. French explorers who visited the area in 1673 found villages of Illinois and Miami Indian tribes along the upland ridges and hills of the region, but subsequent waves of fur trappers and military looked to the low-lying land between the Chicago and Des Plaines Rivers as their focus for settlement. When Indian lands were ceded to the US in 1833, plans to build a canal connecting these rivers and linking the Great Lakes and Mississippi watersheds fuelled rampant real estate speculation near the present location of downtown Chicago. Land improvement for commerce and residence were the foremost goals in building the city, but the commissioners charged with drawing up plans for the canal inserted a small note on their map that would in later years be instrumental in protecting the shoreline of Lake Michigan as Chicago's greatest natural asset: 'Public Ground – A Common to Remain Forever Open, Clear, and Free of Any Buildings, or Other Obstruction Whatever' (Wille 1972: 23).

The city grew rapidly from its incorporation in 1837, and by the early 1860s density and related problems experienced by its 100,000 residents compelled civic leaders to lobby for the development of public parks as 'the lungs of the city'. A cemetery just north of the city was moved from its low-lying shoreland location and in its place rose Lincoln Park, a 24-hectare naturalistic playground for Chicago's rich and poor alike. The park was instantly popular, and the dredge and fill construction techniques that transformed its natural wetlands into ponds for boating and fishing and uplands for pathways, lawns, and shade trees were soon replicated in many large landscape parks and smaller neighbourhood parks across the city. Landfill played a major role in creation of the lakefront park system that now lines 87 per cent of the city's 48-kilometre shoreline. Beginning with the tragedy of the Great Chicago Fire of 1871, which levelled much of the city of 300,000 residents, debris pushed into the lake created a bounty of new land, and two decades later civic leader Montgomery Ward was successful in using the 'Forever Open, Clear, and Free' argument to establish Grant Park in this space. The idea of a public lakefront and creating 'free land' from landfill upon

which to build it soon took hold, and between 1890 and 1950 as the city grew from 1 million to 3.6 million residents, massive construction projects barged sand and sediments from the Indiana Shoals south of the city and dredged a series of harbours to build a nearly seamless string of parkland more than 1200 hectares in extent (Chicago Park District 1995).

While most of this lakefront parkland is manicured green space with facilities that accommodate the diverse recreational interests of its 65 million annual visitors, awareness of its value as an urban natural area grew in large part due to a wildscape that emerged following a change in park land use. A 50-hectare portion of Lincoln Park called the Montrose Extension was developed during the 1930s from extensive breakwater construction, landfill, and dredging for harbour development (Figure 2.1). The outermost 5 hectares of the addition extends more than 1 kilometre into the lake and forms a promontory called Montrose Point. Originally designed in a naturalistic style for passive park use, the point was taken over by the Army soon after its development for use as a World War II radar station and further developed during the Cold War as a Nike Missile base complete with barracks and underground missile silos. The site was finally vacated during the 1970s, and without plans or funding to address this change in land use, Montrose Point became a wildscape dominated by Eurasian grasses and forbs, with its only distinguishing feature being a remnant fence line dominated by Japanese honeysuckle (*Lonicera japonica*) that once separated the Army barracks from the park proper. Now receiving little human use, the remote extension became a natural resting place for migrating birds, and when some 200 different bird species were found to be using the area in and around the fence line birders dubbed it the 'Magic Hedge' (Gobster 2001) (Figure 2.2).



Figure 2.1  
A 50-hectare portion of Lincoln Park called the Montrose Extension was developed during the 1930s from extensive breakwater construction, landfill, and dredging for harbour development (photograph: Chicago Park District, 1934)

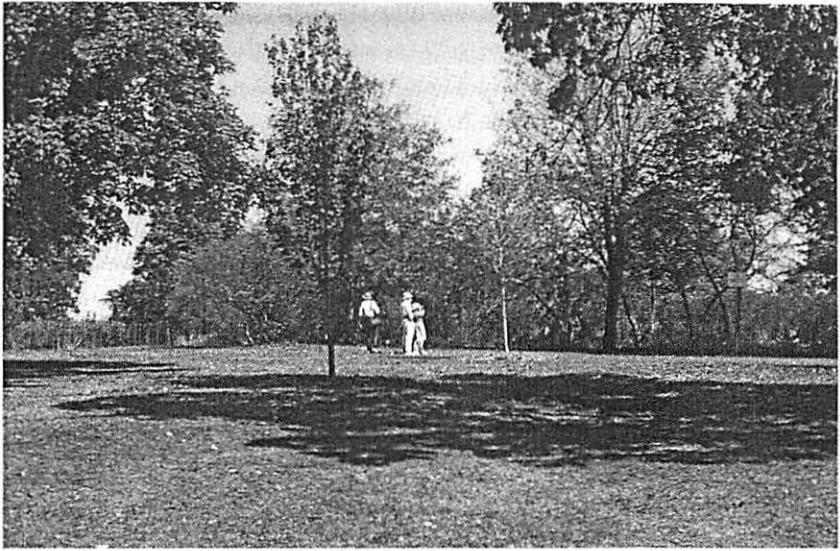


Figure 2.2  
 From top: The so-called  
 'Magic Hedge' on  
 Montrose Point  
 (photograph: Paul H.  
 Gobster, 1991); wildscape  
 buffer between the  
 ecologically managed  
 natural area and the  
 mown and manicured  
 park proper on Montrose  
 Point (photograph: Paul  
 H. Gobster, 2010)

Efforts by birders during the 1980s and early 1990s to protect and enhance the Magic Hedge resulted in the designation of a no-mow zone to discourage active recreation and increase grassland bird habitat, in essence encouraging the evolution of the site as a wildscape. Learning from this serendipitous 'natural experiment' (Gross 2010), park planners, civic organizations, and bird groups and other nature enthusiasts began to work toward the formal designation of Montrose Point and other suitable sites within Lincoln Park and other lakefront parks as migratory bird habitat. As a by-product of a park-wide framework plan, a site master planning process was initiated during the late 1990s with broad stakeholder participation. While many of the participating groups agreed on keeping

Montrose Point wild and for the birds, its ambiguous history as submerged land, historic designed park, army base, and successful wildscape raised many questions about which nature should be expressed in the plan. The nature that was negotiated for the site attempted to reconcile the existing wildscape values of the site (particularly the honeysuckle hedge) with other ecological and historic design ones, and today the site is managed by park district staff and volunteers as a natural area based on the original design theme but using a palette of primarily native plants that maximize food and cover for birds in a diverse assemblage of grassland, wetland, woodland, savanna, and dune habitats. While the current management philosophy of the site is more akin to ecological restoration where natives are emphasized and ruderal non-natives discouraged, in recent years a strip of unmanaged grasses and forbs has been left to grow along the outer edge of the site to provide a wildscape buffer between the ecologically managed natural area and the mown and manicured park proper (Figure 2.2).

It is in this transitional zone between managed areas where a potential future for park wildscapes lies. Natural areas fill an important need as bird habitat, and while habitat creation that uses native plants may be an appropriate choice if it can be adequately maintained, the designated purpose and fragility of such sites often restricts more active recreational uses from occurring. For example, there are no places in Lincoln Park where children can actively explore nature in their own, unsupervised way – picking flowers, digging holes, building forts, and other creative play activities that would be inappropriate in both restored and manicured park settings. Providing wildscape transitional zones in such places may foster such opportunities while at the same time create habitat buffers and lower park maintenance budgets in ways that do not seem as though park managers are shirking their maintenance duties. In other cases where restoration management is difficult to accomplish because of harsh site conditions, lack of funds, or lack of volunteer assistance, it may be that unmanaged or lightly managed wildscapes could by themselves provide sufficient habitat, just as Montrose Point originally did prior to restoration activity.

### **ELEVATED NATURE: WILDSCAPES ALONG RAPID TRANSIT CORRIDORS**

One key to a successful and livable large city is its transportation network, and Chicago's birth in the 1830s not only positioned it for development of a diverse set of corridors filling various transportation needs, but left a legacy of linear green space that today provides important natural and recreational values throughout the metropolitan region. The same canal development effort mentioned above that led to protection of the downtown lakefront as green space also became recognized in its own right in 1984 with US National Park Service designation of the Illinois and Michigan Canal as the country's first National Heritage Corridor (Harris 1998). Use of the canal was short-lived but critical in making the city a hub of commerce, and when railroad development began in 1848 the importance of

Chicago would grow immensely. Within two decades key regional lines converged in the city, and in 1869 completion of a transcontinental route placed Chicago at the centre of an Atlantic-to-Pacific trade route (Condit 1973). Alongside these long-distance routes came a variety of city, inter-urban, and regional commuter train lines, and some of the corridors remaining from outmoded lines have since become the backbone of a vibrant 1600-kilometre regional recreational trail system, including the Illinois Prairie Path, which in 1963 became one of the country's first rail-trails (Chicago Metropolitan Agency for Planning 2010). Finally, while the flat landscape of the region lent itself easily to development of a dense grid of residential and arterial streets, forward-looking park and city planners such as Dwight Perkins and Daniel Burnham also developed a system of parkways and boulevards that continues to provide important green space and pleasurable driving environments for residents (Chicago Department of Planning 1989).

Among the various transportation corridors, the local and metropolitan rapid transit rail lines stand out in the Chicago landscape, not just because of their raised elevation – 4 metres or higher above the flat topography – but also because of the wild ruderal vegetation that commonly populates their narrow, steeply sloping embankments. Often fenced off at the bottom to minimize the hazards of trespass, these strips of land are not only difficult to maintain but also challenging environments in which to grow vegetation.

For the past 25 years I have lived in the City of Chicago near one such rail line, casually observing the nature of this green space for a few kilometres to either side of my house as well as participating in a neighbourhood greening project that stretches 150 metres or so along the embankment closest to our residential block. Originally built by the Chicago and Milwaukee Railroad in 1855 to link these two cities by passenger rail, the Lakeshore Line (now called the Union Pacific North line and run by Metra, the regional rail authority) was instrumental in the development of Chicago's wealthy North Shore suburbs, as it provided swift access between the gritty, bustling city and what was widely viewed as a peaceful, lakeshore paradise (Ebner 1988).

While many of the suburban municipalities have groomed the Metra line through their community with mown banks and ornamental trees and flowers, on the elevated and fenced off Chicago portion with which I am familiar, it is the rail authority that takes official responsibility for management. Their concern however, has tended to be more focused on vegetation clearance than landscaping, and they periodically cut back areas of heavy tree growth and spray with herbicides so that corridor sight lines are maintained to meet safety standards (Randall 1997). This generally has resulted in a patchwork of wild exotic and native ruderal vegetation along the corridor (Figure 2.3). Along a southerly section a linear savanna of large cottonwood trees (*Populus deltoides*) presides over an embankment dominated by grasses such as tall fescue (*Lolium arundinacea*) and quackgrass (*Elymus repens*). Further north, single young silver maple (*Acer saccharinum*) and box elder (*Acer negundo*) trees have sprung up on a stretch with a diverse ground cover of grasses interspersed with visually dominant

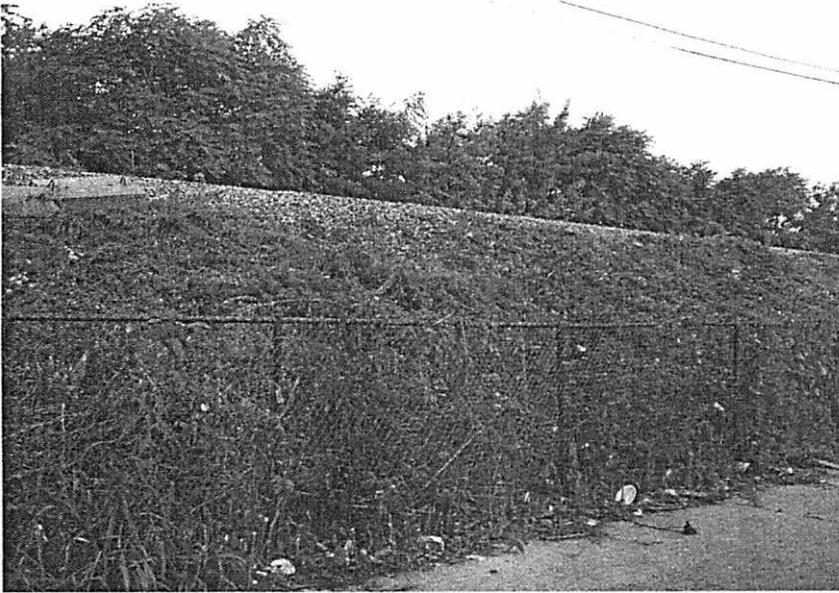


Figure 2.3  
Two sections of the steeply sloping embankment of the Metra rapid transit rail line: after clearance by the rail authority (top), and with overgrowth of ruderal vegetation (photographs: Paul H. Gobster, 2010)

flowers such as evening primrose (*Oenothera biennis*), Ohio spiderwort (*Tradescantia ohioensis*), and common mullein (*Verbascum thapsus*). Just north of there a dense stand of young tree-of-heaven (*Ailanthus altissima*) has taken hold, obscuring most ground cover vegetation save for a thick growth of field bindweed (*Convolvulus arvensis*) that covers the fence. There are also notable differences in vegetation as a function of their position along the slope of the embankment, with carpets of primitive, herbicide-resistant horsetails (*Equisetum sp.*) growing out of the rocks closest to the rails and trees and a greater variety of flowering plants near street grade where the slope is gentler and soils are deeper.

While some of these wildscape variants may be more aesthetically successful than others, it has been my impression that most residents who live near the corridor generally do not perceive any of them as ideally attractive. And perhaps in response to the general neglect for its management by an official body, a number of individuals and neighbourhood groups along the corridor have taken on sections as community greening projects. As a participant observer in the project on my own block, I have heard others involved say they feel the grasses are too dominant and messy looking and the forbs too inconspicuous and weedy. And although some participants acknowledge that these wild volunteer plants may do a good job holding down the soil on the steep slope and require no maintenance, they feel compelled to remove large clumps of them to plant ornamental flowers and shrubs, including those that may require watering, a difficult proposition given that there is no supply on site. As amateur gardeners and prairie enthusiasts, my spouse and I have, over the years, attempted to sway the group towards more sustainable solutions, working within the pre-existing matrix of wild urban plants and incorporating a combination of hardy ornamentals such as day lilies (*Hemerocallis sp.*), hollyhocks (*Alcea sp.*) and showy natives such as cup plant (*Silphium perfoliatum*) and butterflyweed (*Asclepias tuberosa*). By using these plants and other 'cues to care' such as signage, and exposing an attractive limestone terrace wall that is part of the original embankment (Nassauer 1995), I believe that there may be a happy middle ground between an unmaintained wildscape and one with some human intervention. Part of this intervention is aimed at protecting the balance and diversity that can exist in the humanized wildscape by keeping invasives like bindweed and tree of heaven from taking over, but no doubt a major part of it is the act of gardening itself and the benefits it yields for individuals and communities.

### **IN-BETWEEN NATURE: WILDSCAPE FRAGMENTS IN DENSE URBAN NEIGHBOURHOODS**

In densely developed cities like Chicago, neighbourhood public green space is often at a premium, and even if nearby parks do exist, their access and use by some groups such as young children and older adults can be constrained by busy streets, crime, or other concerns. At the same time, there may often be an abundance of small, isolated patches or edges of unmanaged green space that exist between the boundaries of different land ownerships or land uses, and while these wildscape fragments are usually seen as a burden to those who own them, they could provide substantial value if made available as semi-public, community-managed open space.

Such has been the case with another neighbourhood greening project I have been involved in, the aim of which has been to make better use of the small green spaces that exist on our block at the margins between residential and municipal property. The neighbourhood is in the Rogers Park community area on the city's Far North Side, and homes on the block were built between 1914 and 1918 as part of the city's rapid expansion to its northern border with suburban Evanston. The southern alley of the block shared a property line with a Chicago

Railways Streetcar Depot, which housed electric streetcars from 1901 until 1957, when its then owner Chicago Transit Authority switched to all-bus transportation (Samors *et al.* 2001). In the early 1970s the property was redeveloped as a sanitation district ward yard and district police station, with an access road and parking lot abutting the alley. To separate the ward yard, the sanitation district erected a chain link fence and on the residential side of it built a 1 × 120-metre planter and filled it with arborvitae trees (*Thuja occidentalis*). The police district simply fenced their property, but on either end of the parking lot left two small green spaces, one 20 × 20 metres for a tall communications tower, and a smaller 10 × 10 metre patch for unknown purposes.

The conditions under which these spaces evolved are typical of many urban wildscape fragments, which they had become when I first observed them in the late 1980s. The narrow width and sun and wind exposure of the alley planter made it difficult for the arborvitae to survive, and where they had died they were replaced by volunteer trees such as box elder (*A. negundo*), white mulberry (*Morus alba*), and Siberian elm (*Ulmus pumila*). Its ambiguous ownership status seemingly absolved landowners on either side of the fence from management responsibility, and such discoveries as piles of road salt spilled from the district side and motor oil and construction debris deposited on the residential side suggested that the planter had become a miniature 'tragedy of the commons' (Hardin 1968). The two patches of ground at the back of the police station parking lot did not fare much better. Being far removed from the rest of the site's green spaces significantly reduced attention by the grounds crew, and the drifts of discarded styrofoam coffee cups and doughnut bags accumulated along the fence lines and corners only helped reinforce the beat-cop stereotype.

A spring 1989 neighbourhood 'cleaning and greening' effort helped to raise awareness and appreciation for these small green spaces and their value to those on the block and the larger community. Momentum for action was bolstered by a 1990 open space assessment that found the Rogers Park area to have among the lowest amount of per capita open space in the city, which helped the project secure a small grant to improve these small areas as community-managed open spaces. New trees and shrubs were planted along the length of the planter, along with flowers purchased or dug from neighbours' backyards. Working with the police station's office of neighbourhood relations, project participants relocated the fence surrounding the two patches of police property so that it closed off the parking lot and opened into the alley. The larger patch surrounding the tower was filled with new topsoil to start a community vegetable garden and the smaller patch was planted with ornamental crab trees (*Malus sp.*), lilacs (*Syringa sp.*), and annual and perennial flowers for a community flower garden. Subsequent plans at the community and city levels identified the value and usefulness of small spaces such as these in filling open space and recreation needs in dense areas of the city, and in 1995 the neighbourhood greening effort was designated as a city model demonstration project exemplifying 'public-private partnerships for landscape management and programming' (City of Chicago 1998: 116) (Figure 2.4).

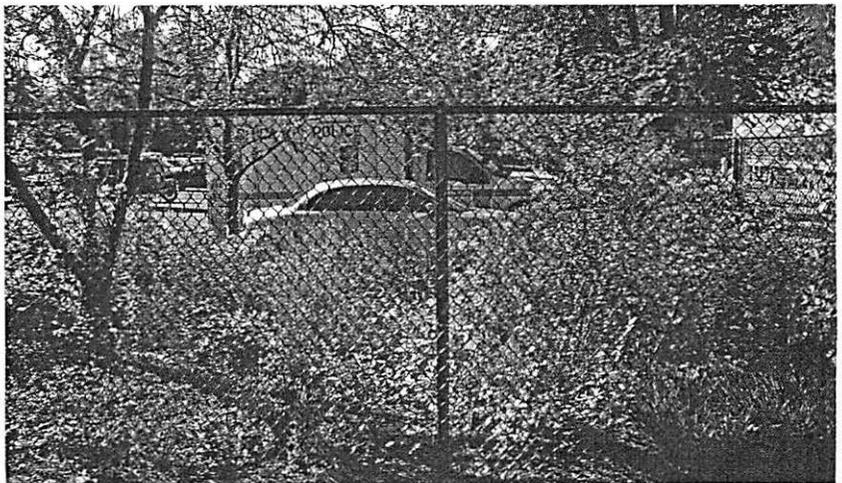


Figure 2.4  
The community flower garden in 1989, 1993  
and 2010 respectively  
(photographs: Paul H.  
Gobster)

The last fifteen years have been an evolving lesson in what sustainability means, both ecologically and socially, and has implications for how wildscapes can best fit into small urban spaces. Ecologically, these small sites are very challenging and even with soil modification plant selection is critical. Apart from the vegetable garden, many of the plants put in during the early years of management were not robust enough, particularly the flowers, to survive under minimal management, and over time we have resorted to hardier species of trees and shrubs and selected flowers such as day lilies, hollyhocks, and cup plants that mass and can take dry conditions. We have also been more accepting of volunteer trees and other spontaneous wild plants, and where appropriate incorporate them into the landscape. Socially, however, the tolerance level for these species is quite low and in the context of these small spaces the need for neatness, colour, and familiarity still prevails. This lesson was reinforced in early 2010 when we discovered that a new fence had been erected, blocking the access to the community flower garden from the alley side. Prior to this, in recent years the trees and vines on this small site had shaded out many of the flowering understory plants, and it had become a secret garden of sorts for neighbourhood children who would climb the trees, swing, and build forts. The police district's neighbourhood relations department, however, had a very different sense of aesthetics, and felt it was too messy and neglected. Ironically, now in the absence of use and maintenance, wild urban vegetation has quickly reclaimed the site, and except for the planted trees the patch today looks much like it did when first appropriated by the block in the early 1990s.

## **RECOVERED NATURE: WILDSAPES IN LARGE VACATED AREAS**

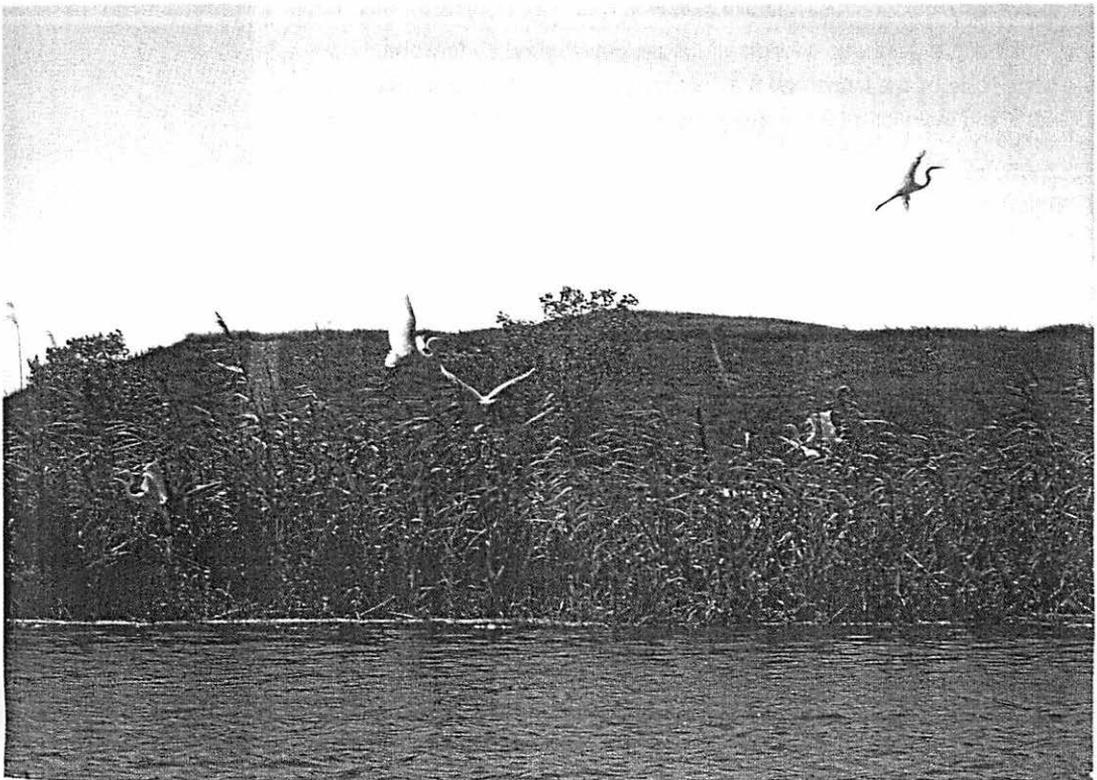
While the search for green space fragments continues in parts of cities like Chicago's Rogers Park community area where density remains high, many cities when looked at as a whole are experiencing de-densification and attempting to deal with the reality of large amounts of vacant land. This is particularly true of older cities with economies based on heavy industry, and as national and global economies shift production of raw materials and finished goods to other locations, a cascade of abandonment across industrial, commercial, and residential land uses has resulted in large areas of highly disturbed and often contaminated open space. These brownfields are the most visible manifestation of what has been called the 'shrinking cities' phenomenon, and what happens to these lands and the role of wildscapes in their reinvention has become an international topic in urban planning and landscape management (Rink and Kabisch 2009).

The Calumet Region of Southeast Chicago and Northwest Indiana provides a good case study example of how wildscapes can fill short- and long-term needs in the ecological recovery of extensive brownfield areas. Prior to development, this area along the southern shore of Lake Michigan was an ecologically rich mosaic of lake, wetland, prairie, and dune ecosystems with more than 1,300 species of plants. While its bountiful fish and wildlife were highly regarded by

early Indian and European settlers, as the city grew its water and railway system made Calumet the logical centre for industrial development and the wetlands a convenient place for waste disposal. By the 1880s Calumet had gained status as a steel making centre, and as giant steel plants and their associated company towns prospered they attracted additional industry and manufacturing for chemicals, cement, and other products. Industrial waste from these operations, particularly the rocky mineral 'slag' from which the iron for steel making was extracted, was dumped into nearby wetlands, and the region also became a major landfill site for municipal waste (National Park Service 1998).

By the late 1970s the US steel industry had severely declined, causing many industrial concerns to vacate the Calumet region. Today, slag deposits cover more than 15,000 hectares of the region to a depth of 2–20 metres, and in Chicago alone more than 300 hectares of landfill tower over the otherwise flat landscape. But significant remnant natural areas still exist, providing habitat for endangered black-crowned night herons (*Nycticorax nycticorax*), yellow-headed blackbirds (*Xanthocephalus xanthocephalus*), and other native plant and animal species (Figure 2.5), and reconceiving the region as a zone for ecological and economic revitalization has been the focus of two plans focused on the City of Chicago portion of Calumet. In the *Calumet Open Space Reserve Plan* (Chicago Department of Planning and Development 2005), 600 hectares of existing public open

Figure 2.5  
Snowy egrets (*Egretta thula*) scattering in wetland with landfill in the background, Calumet region of Chicago (photograph: US Forest Service, 2008)



space will form the core of a 2,000-hectare reserve, with new lands to be acquired for open space preservation, recreation, and reclamation, the last category of which will protect open space character while maintaining functions related to waste treatment or energy. A second plan, the *Calumet Ecological Management Strategy* (Chicago Department of Environment 2002) develops strategies for addressing management goals for ecologically significant sites.

While they may not be explicit about it, the plans offer examples of the important roles that wildscape vegetation can play in rehabilitating the more severely disturbed and damaged lands of the Calumet region. A landfill adjacent to a key wetland has been listed as a US Environmental Protection Agency 'Superfund' site because its toxic contents are leaching into the groundwater, and scientists are exploring the use of fast-growing cottonwood (*Populus sp.*) and willow (*Salix sp.*) trees to remove contaminants in a process called phytoremediation. Along the edge of another key marsh, the aggressive common reed (*Phragmites australis*) has firmly established itself, but wildlife ecologists recognize its value as nesting structure for one of the state's largest rookeries of black crowned night herons, and are hesitant to recommend removal until suitable alternatives are established. Finally, in a number of areas, steel slag was poured in molten form onto the landscape, and after many decades the only vegetation capable of colonizing the near impenetrable surface has been low growing weedy ruderals. In each of these cases, it is recognized that wildscape vegetation can provide a useful environmental service, and often free of charge. For brownfield sites such as these, the social-aesthetic considerations are outweighed by functional ones, and the large scale of the landscape may permit a greater use of wildscape vegetation as short- and even long-term management solutions (Westphal *et al.* 2010).

## CONCLUSION

In this chapter I have outlined how a natural history approach can help us understand the genesis and evolution of urban wildscapes. Using case study examples in the City of Chicago, I have identified four major human-created green space types and discussed the place of wild urban vegetation within them. Surely there are additional types that could be discerned, and in some cities certain types may be more important than others. But as a way to think about the place of wildscapes in the context of other green spaces, I believe the examples usefully describe the range of conditions that can exist and illustrate how wildscapes can be better understood and appreciated.

In park settings such as the lakefront example, wildscapes might provide a useful transition zone between formally managed natural and manicured areas and offer a unique, low-maintenance setting for active nature exploration activities, which neither type of managed area now provides. In corridor settings such as the elevated rail example, wildscapes provide a low-maintenance solution to linear sites that are ecologically and economically difficult to manage, and aesthetic acceptability might be increased by varying the structure of vegetation

along segments of the route as well as engaging community groups to embellish visible neighbourhood zones with showy plantings and other indicators of stewardship. Extensive use of wild urban vegetation faces the biggest social hurdles on small, open-space fragments in densely populated neighbourhood settings, but judicious incorporation and management of volunteer trees and other plants along with the planting of hardy, low-maintenance native and horticultural varieties can help to mainstream their acceptance. And in large-scale brownfield areas, justifying the functional and economic benefits of wild urban plants may help to offset the perceived costs of their aggressive, 'otherness' qualities, especially when considered as temporary solutions.

By thinking about wild urban vegetation as the living landscape's response to the often harsh conditions provided by human-created open spaces, we may gain a stronger ecological and economic appreciation for their utility as sustainable solutions to urban green space planning and management. Moving from these perspectives to a social and aesthetic appreciation is a more difficult task, and in cities like Chicago where weed ordinances<sup>1</sup> still take a largely negative position on unmanaged, spontaneous vegetation, there are also formidable technical and policy hurdles to overcome. But by understanding wildscapes from a natural history approach and considering the various contexts in which they are perceived and experienced, it may be possible to work toward a greater appreciation in this realm as well.

## NOTE

- 1 Like many US cities, Chicago has an ordinance aimed at minimizing untended weedy vegetation, and declares that any weeds taller than 10 inches (25 cm) are considered a public nuisance, for which owners can be fined from US\$100–300. In recent years, the city has attempted to clarify the distinction between unmanaged weeds and managed native vegetation, but as written, the guidelines still put spontaneous wild urban vegetation in the category of a public nuisance.

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