

LINKING PAST AND PRESENT



CHAPTER 7:

Our landscapes are dynamic expressions of natural and cultural history; our history is, literally and metaphorically, written on the land. The grand narratives of glacial geography and weather patterns, along with the more immediate tales of land use and maintenance practices, all leave traces. Whatever the source driving some specific change (whether human or natural) and whatever the time scale (millennia or just a few years), every place is layered with stories. Sometimes these stories are hidden; sometimes they're transparent and easy to uncover. Always, they're instructive: they tell us about ourselves. Our cultures grow out of the soil of particular places, and grow and change in response to these conditions. When we work to uncover the stories written through time on the landscapes that surround us, we are learning the history that makes us who we are.

Brant Prairie, Brantford, Ontario

One of the most hopeful messages we can learn from the land is that the earth has the capacity to regenerate and heal over time. This is the lesson taught in naturalization projects, where damaged and degraded landscapes are brought back to health through community efforts. And it is the lesson taught by the surprising appearance of the endangered partridge pea (*Cassia fasciculata*) in a parking lot in Brantford, Ontario, where the past marched into the present most declaratively.

The Union Gas Customer Centre in Brantford shares little in common with the corporate and municipal landscapes that surround it. The police sta-

tion right next door, for example, presents an ordered face of manicured lawn, which is precisely what one might expect for corporate or office grounds. But the Union Gas landscape is decidedly different: signs along the driveway announce “Landscape Restoration Area”; plants are identified with small markers; the sounds of birds and bugs fill the air. This corporate landscape is an oasis, a thriving tallgrass plant community of restored prairie, a gift of nature among lawns and roads.

When constructing the facility in 1996, Union Gas decided that its landscape plan should reflect the company’s environmental values. As Bruce Wilson, the Utility Services Manager, says, “Our corporate philosophy is based on sustainable development. We had to show that we care.” Thus, the only existing natural feature on the site, a wetland pocket, was identified for protection and incorporated into the company’s stormwater management design. Consultants evaluated the rest of the site, which was covered in an agricultural corn crop when Union Gas bought the land, and determined that the

FACTS AT A GLANCE

Size of the site: 3.5 ha.

Year established: 1996.

Main features: wetland, prairie and woodland areas, butterfly and hummingbird habitat, walking trail, interpretive signage; the wetland filters stormwater run-off from the parking lot.

Significant plant species:

Nationally rare: Lanceleaf Coreopsis, Rattlesnake Master, Purple Prairie Clover, Showy Goldenrod;

Provincially rare: Nodding Pink Onion, Stiff Goldenrod, Heartleaf Golden Alexandra.

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soil and conditions were ideal for supporting a tallgrass prairie ecosystem and an oak-maple forest community, both historically indigenous to the area and one, the tallgrass prairie, highly endangered.

Today, the 3.5-hectare site is a haven for wildlife, and a rich and diverse plant community. Hundreds of varieties of native perennials and grasses flourish on the site, which changes throughout the seasons. As Wilson says, "It's not just the same old lawn; it changes all the time. It has a life of its own." Although there were a few complaints from the public at first, the company has worked hard to educate the community about the unique environmental benefits of the site, and now the space is used by various groups for educational purposes: Boy Scouts come for tours, as do the Brant Field Naturalists and Master Gardeners, and a group of local artists comes regularly to sketch the landscape. Company employees eat their lunch at picnic tables set up in the oak savanna area, shaded by trees.

The environmental benefits of this unusual corporate landscape also

lead to cost savings, not only for Union Gas but for the municipality as well. The wetland, for example, functions as both a recharge and discharge area for groundwater; stormwater from the



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site and run-off from the parking lot drain into the wetland, which filters out sediment before discharging the water into the municipal storm-sewer system. The company's landscape maintenance costs are also lower than they would be for a conventional lawn: there are no mowing, irrigation, fertilizer or pesticide costs associated with this naturalized landscape. Wilson explains that although the company had to spend more time than expected in the initial years controlling weeds, "now, in the prairie's sixth year, what we wanted to happen is happening: the native plants are established. We just need to do some pruning and selective weed eradication. This is definitely less expensive in the long-term to maintain."

Achieving the Savings

Union Gas has conducted a cost-benefit analysis of the project, comparing what they spent on the naturalized landscape to what they would have spent on a conventional lawn. Bruce Wilson believes that the findings provide a good depiction of what any company considering doing a naturalized landscape can expect.

Most places with conventional lawns install an irrigation system. In our calculations, we included this cost for comparison purposes and found that it makes the cost of a conventional landscape more expensive than a naturalized one. Otherwise, they are quite close. But during the initial years, the restored landscape has higher operating and maintenance costs because of the labour required to get it established. The crossover point for these costs occurs around four to five years after installation.

The cumulative difference at the 10-year point shows that, in our case, the operating and maintenance costs are one-third less compared to a turf-grass landscape. And we included the cost of creating and printing interpretive and educational materials because we wanted to use the site that way. The positive difference increases as time passes.

While the project makes good financial sense, Wilson cautions that in the beginning there were concerns expressed by the community about the aesthetics of the landscape: “You have to explain to people what you’re doing, because if you’re not cutting grass, some people will think you’re going out of business...We got the full spectrum of responses, from ‘that’s great’ to ‘that’s horrible’ and everything in between. Don’t be discouraged by negative comments; tell people what you’re doing and explain the environmental benefits.”



Stewart Chisholm

Perhaps the most satisfying result of Union Gas’s naturalization effort can be found in the surprising appearance of the partridge pea. This rare plant has not been seen growing in Ontario for more than 50 years, but one place where it now grows is in the Union Gas corporate landscape. It wasn’t planted there; rather, it is believed to have germinated from dormant seed that existed in the soil. Flourishing in a most unlikely spot—in some gravel beside the driveway—this rare plant is a powerful symbol of the ways that,

with time and help, landscapes can heal, and corporate grounds can be places where the healthy ecological functioning of the past can find expression in the present.

Métis Horticulture & Heritage Society, Winnipeg, Manitoba

We may think of seeds as pure potential, bundles of future growth, but what is contained in every seed is not simply the promise of growth ahead, but in fact the past—the history of human cultivation of the land. As Garrett Pittenger of the non-profit organization Seeds of Diversity has written: “The heritage of our cultivated plants represents an enormous accumulation of wealth, the result of generations of natural evolution; the cumulative efforts of selection by millions of gardeners and farmers from the earliest days of agriculture to the scientific breeding of recent years; and the enormous amounts of time and money expended over the past few centuries of global plant exploration and collection.”¹

That heritage, represented in the genetic information of the world’s plant resources, is being lost and eroded. The United Nations Food and Agriculture Organization estimates that since the beginning of the 1900s, approximately 75 per cent of the world-wide genetic diversity of agricultural crops has been lost.² To take just one example: more than 7,500 varieties of apples existed in North America in 1900³; today, only a tiny percentage

remains in commercial production. What we lose when varieties go extinct is not just consumer choice; we also lose a part of our collective heritage that links the past to the present and makes the future possible.

One organization in Manitoba, the Métis Horticulture & Heritage Society (MHHS), is working to restore that link. Begun in 1997 by Caroline Chartrand, its goal is “to grow and save the seeds that are a part of our Métis heritage and to teach the knowledge and skills about gardening and seed saving so that this legacy will be passed on.”

By the mid-1800s, there was a thriving Nation of 10,000 Métis people in the Settlement of Red River (now Winnipeg). As Chartrand puts it, the “grocery stores” of the Métis were “just out our back doors: the prairie, our gardens and the wildlife supported by prairie habitat. Today in our urban setting, our children are growing up with little or no interaction with or awareness of our relationship with the natural surroundings once provided by Mother Earth. Only by revitalizing this relationship and restoring and preserving our local habitat in collaboration with our elders, community and neighbours will we be able to nurture and be sustained by the vital connection between our natural surroundings and our Métis heritage.”



Métis Horticulture
& Heritage Society

The MHHS project seeks to foster that connection through seeds and through the cultivation of “living history gardens.” In these gardens, not only are heirloom vegetables historically grown by the Métis of Red River conserved, but so too are historical gardening practices revived and passed on. As Chartrand says, “One of the things we’re attempting to demonstrate is how traditional gardening practices are more ecologically sound and suitable. They reflect a relationship with the land in which the land is used in a positive way.” Examples of traditional practices include cultivating the soil without heavy machinery, conserving water through the use of rain barrels and avoiding synthetic chemicals.

For the first few years of the project, the group focused its efforts on eight vacant lots in downtown Winnipeg, all owned by the same person who gave the group permission to cultivate the land and turn the spaces into community gardens. Two lots were planted with heritage varieties, two with indigenous wildflowers and grasses; three were turned into food-growing plots for community members, and one became a seniors’ garden. When some of the

FACTS AT A GLANCE

Year started: 1997.

Aims of the organization:

to grow and save heirloom vegetable varieties;
demonstrate traditional ecologically sustainable gardening practices.

Key activities:

seed saving and heritage plant pollination workshops;
cultivation and maintenance of community historical gardens;
historical research.

Approximate number of volunteers and workshop participants to date: 400.

Project contact: Caroline Chartrand, Métis Horticulture & Heritage Society,
phone: (204) 772-9468.

lots were put up for sale, however, the group realized that they needed more secure land tenure, and they switched their efforts to the Métis community of St. Laurent, 60 minutes from downtown Winnipeg, where they were given access to a large open green space suitable for gardening.

In St. Laurent, the MHHS cultivates a 30- by 60-metre (100- by 200-foot) garden divided into four large beds, each demonstrating different growing techniques or focusing on different heritage varieties. In one bed, for example, there's a Three Sisters Garden in which the traditional Native practice of growing corn, squash and beans together is demonstrated. In the centre is a small ceremonial planting of tobacco to honour maternal ancestors. In another section is a Métis Flag Garden, with the infinity symbol planted in white flowers surrounded by blue perennials.

It is in the use of heritage plant varieties that the most explicit connection with the past is made and, indeed, brought to life in the present. The group conducted research at the Hudson Bay archives and the Parks Canada archives and developed a "wish list" of 100 vegetable varieties documented to have grown in the Red River Settlement in the 1800s. They then began searching for these varieties through various sources, and the difficulty of finding



Métis Horticulture & Heritage Society

these seeds only served to strengthen their purpose. (The federal Plant Gene Resources seed bank had only two of the desired species in their collection, for example.) Sources included two seed savers organizations (Seeds of Diversity in Canada and the Seed Savers Exchange in the U.S.) and Métis community members. The group was especially pleased to find a Métis family in Batoche, Saskatchewan, growing an old variety of corn that had been passed down through their family and grown in the traditional way for generations. Through such research and community contacts, Chartrand estimates that the

group has secured roughly 20 varieties of their original list of 100.

Finding seeds is only half the battle, though. The next crucial step is to keep them in production, and the MHHS achieves this through its Grower's Network and its Adopt-a-Variety program. In order to be eligible, volunteers must attend a workshop in which various methods to keep seed lines pure (such as hand-pollination) are taught. One of the conditions of involvement is that volunteers



Métis Horticulture & Heritage Society

teach these practices to other people, so traditional knowledge is passed on. As Chartrand says, the sharing is the point: "In order for those varieties to have existed 100 years ago, they had to be maintained by people and passed on by people. It's just like a language. Our Michif language is in danger of going extinct because not enough people are passing it along through generations. I relate our seed saving to our language: the only way to maintain our heritage and our culture is to practise them and pass them on."

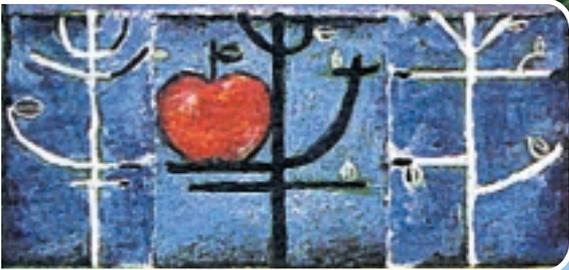
Notes:

1 Seeds of Diversity, September 1997.

2 United Nations Food and Agriculture Organization.
State of the World's Plant
Gene Resources. Rome: FAO, 1996.

3 Wildfong, B. "Saving Seeds." Alternatives Journal
25:1.

SECURING THE FUTURE



CHAPTER 8:

The preceding chapters explore the numerous ways in which community stewardship groups and municipalities are working in partnership and using innovative methods to restore urban green space. This work, in and of itself, is challenging, but there is a further challenge that needs to be addressed in all projects if the work is to have lasting impact: that is, the stewardship site must be secure for the future. There is little point in building community stewardship if the very existence of the site is threatened in either the short- or long-term.

Conventional approaches to conserving green space—such as municipal procurement of land, Official Plan designations for protection and zoning by-laws—serve to protect land, but in some cases these approaches may not be possible or they may need to be supplemented with other protection strategies. The municipality may not have the funds, for example, to buy all the green spaces within its boundaries; or the political will to protect green spaces from development may be lacking. However, in recent years a number of new tools to secure and protect green spaces have been developed by municipalities and by community groups, and these are increasingly being used to supplement conventional land-protection methods. In the following examples, four creative tools are explored.

Securement Partnerships

The Spring Garden Natural Area in Windsor, Ontario, is a 117-hectare parcel of land with outstanding, high-quality prairie and savanna remnants. Of the more than 500 plant species found on the site, 69 species are considered rare to extremely rare in Ontario according to the Ontario Natural

Heritage Information Centre and four are listed as threatened or endangered nationally. Sixteen species of mammals have been observed, including the provincially rare gray fox and the regionally rare eastern chipmunk. In addition, three species of threatened snakes, eastern massasauga rattlesnake, eastern fox snake and Butler's garter snake inhabit the site.

While the ecological value of this site has been recognized over the years through various designations (for example, as an Environmentally Significant Area in 1983 and as a provincial Area of Natural and Scientific Interest in 1984), and efforts to protect the site date back to 1975, increasing development pressures threaten the ecological integrity of Spring Garden. 1,476 individual privately owned lots are found within the boundaries of the site, representing approximately 56 hectares in private ownership. The challenge faced by the City of Windsor is in ensuring that this area remains protected in perpetuity.

This challenge is being addressed through a bold procurement strategy adopted unanimously by City Council in December 1999: the entire site has been designated "Natural Heritage" by the City's Official Plan (from the former "residential holding" designation) and the City, along with a silent partner, will each spend \$2.2 million over the next six years to acquire the private properties included in the site.

The land will be acquired in stages by means of land exchanges with the largest landowners, parkland conveyances written on title, direct purchases, and partnership agreements with the silent partner. Paul Pratt, the City of Windsor's Naturalist, says that the community has shown a high level

of support for protecting the site. A portion of the city's bicycle path network has been established through Spring Garden, which has introduced many residents to the area and helped them become familiar with its natural features. The success of this project will depend on sustained fundraising efforts, maintaining existing land appraisals and overcoming objections filed with the Ontario Municipal Board.

"Council's decision to acquire and protect the site will perpetuate its significant ecological communities, integrate future development with the natural environment and enhance the quality of life for the residents of Windsor." This visionary securement partnership will ensure that a rare prairie remnant in this southwestern Ontario city will remain protected in perpetuity, secure for the future.

For more information on Spring Garden contact: Paul Pratt, Naturalist, City of Windsor, ppratt@city.windsor.on.ca; phone: (519) 966-5852.

Local Improvement By-laws

The Weinlos neighbourhood in the southwestern section of Edmonton, Alberta, is a multi-residential, high-density community with a full complement of park space. When the residential development in the area was completed in the early 1980s, one of the lots was left in its treed, natural state by the developer. The community decided that it would like to see this lot turned into a public park and approached the Parks and Recreation Department about the possibility of the City acquiring the land. The City's park land analysis revealed, however, that the neighbourhood already had the standard amount of parks space, and thus there was neither the money nor the political will to purchase more land for a park in the area.

In many communities, the story would have ended there. In Edmonton, however, an innovative municipal tool called a Local Improvement By-law allowed the community to take action, with assistance from the City: the City put the money up front to buy the lot, and the community is paying the money back, in the form of an annual tax levy, over 20 years.

The procedure is relatively straightforward: the community of Weinlos submitted a local improvement petition to City Council in 1989. (For the petition to be valid, it had to be signed by two-thirds of the property owners in the area.) In the petition, residents agreed to be responsible for the costs associated with the book value of the site (\$192,422 in 1989) plus related development costs for the park. They also agreed to work with the City in cleaning and maintaining the park. In return, the City purchased the site from the developer and added an annual levy of \$27 per property to each of the approximately 900 properties in the area. (Properties directly adjacent to the park pay slightly more—\$54 per year—because they receive a greater benefit from the park in terms of increased property values.)

According to Bob Priebe, an urban planner with Edmonton's Community Services Department, the process has worked well: "The Local Improvement By-law is a means for financing the retention of the Weinlos site as a park. The neighbourhood absorbs the cost through a levy, amortized over 20 years. The levy could be attached to the title of the land, so if a property owner wants to sell, the levy is disclosed in the transaction."

At the same time he cautions that there can be a downside: "Landowners don't always agree, and the Assessment Review Board is not

necessarily bound by Council's decision which could leave Council holding the bag financially. A somewhat remote possibility, but it could happen."

Using this tool, everyone wins: the neighbourhood is able, at low cost, to secure more land for green space and the City is able to expand urban park space at no extra cost to the municipality.

For more information on the Weinlos Local Improvement By-law, contact: Bob Priebe, Parks Planner, City of Edmonton, bob.priebe@gov.edmonton.ab.ca; phone: (780) 496-4780.

Conservation Easements

Another tool for conserving land is a conservation easement. A conservation easement is a legal agreement between a landowner and a qualified organization (such as a land trust—see the following section) that places limits on what can be done on and to the property by that owner and all subsequent owners. In conservation easements, the limits usually relate to what changes can or cannot be made to the property's existing natural features.

The landowner continues to own the land, but the conservation easement specifies various restrictions regarding development of the land. These restrictions are tailored as a bundle of rights whereby the landowner retains some rights and gives up others. The restrictions can be far-ranging or narrowly defined; for example, a conservation easement might state that no development can occur (that the property will remain in its natural state in perpetuity) or it might state that development can occur, but only if 75 per cent of the existing trees remain unaffected. Whatever is written into the easement is attached to the title of the land and is binding on the current owner and all future owners.

It's important to note that conservation easements can be used as a protection tool in the urban environment as well as in the rural environment or on wilderness lands. A conservation easement attached to the title of the land that houses the Alex Wilson Community Garden in downtown Toronto, for example, ensures that this small urban site will be used as a community garden in perpetuity.

The role of the conservation organization (with whom the easement is signed) is one of monitoring and enforcement. It is the organization's responsibility to ensure that the terms of the easement are being met and followed by periodic inspection, and to take legal action in order to defend the terms of the agreement if necessary.

Legislation related to conservation easements varies from province to province. For example, in Saskatchewan, the Meewasin Valley Authority (MVA) (see Chapter 1) is one of a limited number of agencies authorized by the Provincial Conservation Easement Act of 1996 to enter into conservation easements to protect ecologically significant property. In June 2001, MVA signed a conservation easement with a private landowner to protect 100-hectares of native prairie habitat. The property includes segments of trails managed by MVA. It also holds a conservation easement with the Saskatoon Catholic School System to protect 5.2 hectares of grounds belonging to a local high school. The agreement aims to protect the natural areas and increase biodiversity, while creating an outdoor living classroom for the students.

Along with the conservation value of the easement, landowners receive a receipt for a charitable donation. The amount of the receipt is based

on the difference between the best value use of the land and the value of the land with the conservation easement, as determined by a professional appraiser.

Although conservation easements are a relatively new tool for protecting land, they represent one of the most powerful methods of ensuring that the natural features of a site are secure for the future.

For more information on the MVA conservation easement, contact: Susan Lamb, CEO, MVA, meewasin@sk.sympatico.ca; phone: (306) 665-6887.

Land Trusts

Land trusts are another relatively recent development in the conservation movement in Canada, and they can take many different forms. Most land trusts are private, non-profit corporations established for the purpose of protecting land for its natural, recreational, scenic, historical or productive value. They may be local, provincial or bioregional in scope; they may exist solely to protect one particular property or, more commonly, they may have a broader focus.

The involvement of land trusts in land acquisition or land management varies depending on the goals of the organization. Some raise funds and purchase properties; others accept donations of land; others simply act as the organization that holds conservation easements without actually owning any land. What unites the land trust movement is that a community-based organization is involved in the protection of land for the future.

At present, most land trusts in Canada are focused on preserving rural or wilderness areas, and few have explored the application of this con-

cept in the urban environment. However, a working group is in the early stages of assessing the feasibility of a land trust in the City of Ottawa. Concerned about the lack of coordinated conservation activities in different areas by different agencies, the group is proposing that an Ottawa land trust could work with community and government to design a strategy to identify areas to protect, acquire land; manage land; raise funds; and enhance community awareness of stewardship. In effect, this proposed urban land trust could be the link that binds together individual landowner efforts, government strategies and community goals for green space protection.

According to David Miller, Environmental Planner with the City of Ottawa, the land trust approach allows for community involvement at a time when municipal budgets are stretched to the limit: “A City might want to protect a piece of land, and the community might want to have a legal status in that. If you have a land trust established, then both the City and the community have a joint interest in protection and a means to achieve it. The land trust can build community support, fundraise creatively and act quickly. These are things that government, typically, can’t do on its own. So the land trust adds value. Through matching funds, for example, a land trust can help government dollars go further.”

For more information on the Ottawa Land Trust Working Group, contact: David Miller, Environmental Planner, City of Ottawa, David.Miller@city.ottawa.on.ca; phone: (613) 580-2424, ext. 21447.

With each of these innovative protection tools, the key is partnership. Municipal governments, community groups and private interests all work together to ensure that however the green space is protected, it is protected in perpetuity, secure for the future, of benefit to all.



Evergreen is a national non-profit environmental organization with a mandate to bring nature to our cities through naturalization projects. Evergreen motivates people to create and sustain healthy, natural outdoor spaces and gives them practical tools to be successful through its three core programs: **Learning Grounds** (transforming school grounds); **Common Grounds** (working on publicly accessible land) and **Home Grounds** (for the home landscape). We believe that local stewardship creates vibrant neighbourhoods, a healthy natural environment and a sustainable society for all.

Evergreen's Common Grounds Program

Common Grounds brings land-use planners, landscape architects and community members together to restore public land. By supporting community greening initiatives, Common Grounds enriches ecological diversity, fosters healthy, sustainable communities and increases environmental awareness.

Evergreen Tool Shed

The Tool Shed is an integrated collection of resources designed to inspire, educate and guide students, teachers, planners, community groups and individuals through all stages of a school, community or home naturalization project. The Tool Shed series includes guide books, instructional and inspirational videos, fact sheets, case studies, newsletters, research reports and an on-line registry. For the latest information on Evergreen's Tool Shed resources, check out our Web site at www.evergreen.ca.

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