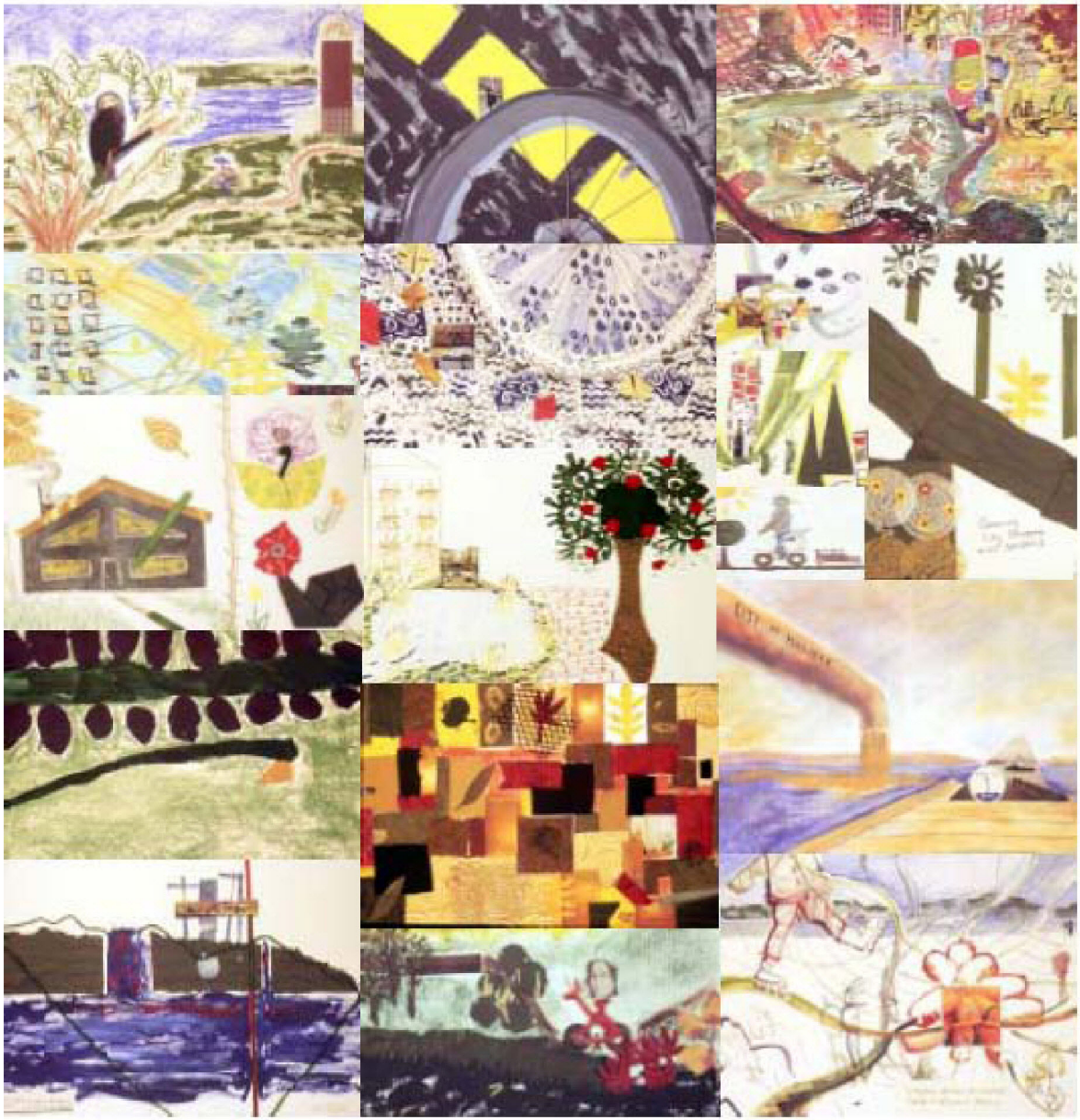
breaking ground



greening the urban and regional landscape

Conference Proceedings March 2002, Halifax

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breaking ground

greening the urban and regional landscape

ECOLOGY ACTION CENTRE

EVERGREEN

DALHOUSIE University

Breaking Ground
Greening the Urban and Regional Landscape

Conference Proceedings
March 20-22, 2002
Pier 21 Halifax, Nova Scotia

Presented by Dalhousie School of Planning, Evergreen and Ecology Action Centre
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Cover: Collage of art work produced by conference participants
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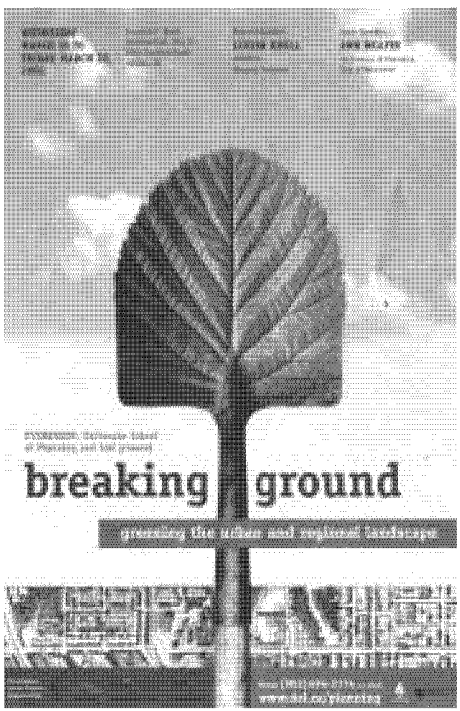

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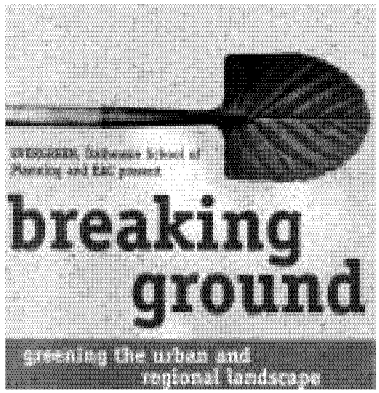
ECOLOGY ACTION CENTRE has a mandate to encourage a society in Nova Scotia that respects and protects nature and provides environmentally and economically sustainable jobs for its citizens.

EVERGREEN'S mission is to bring communities and nature together for the benefit of both. We engage people in creating and sustaining healthy, dynamic, outdoor spaces in our schools, our communities and our homes. Evergreen is a registered charitable organization.



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Thanks to our Breaking Ground Supporters
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FOREWORD

Each year, the Dalhousie School of Planning together with many friends holds a public forum on some issue of importance and immediate relevance to the community. Previous forums considered topics such as: "Which way should Metro grow", "Centers in the Region", and "Halifax in Motion".

In March 2002, thanks to a partnership with Evergreen and the Ecology Action Centre, the the focus was on the environment. The conference was one of five to take place across Canada on the theme of "Breaking Ground - Greening the Urban and Regional Landscape". It formed a part in the Evergreen Canada Initiative (ECI) intended on "connecting communities with nature".

The public forum started on the first day of spring. It marked a "break" in the seasons, and an extraordinary opportunity to share insights, develop new ideas, and break the pattern.

The underlying assumption guiding the organization of the event was that "greening" is more than a token physical gesture. Rather, it is an attitude and a culture that understands the environmental significance of our actions, be it at the scale of an individual backyard, or the entire region.

For the first time perhaps, this forum "broke through" to attract a regional audience from the Atlantic Region. Participants from other towns and cities brought their experience and knowledge to the Halifax Regional Municipality, which is in the process of developing its first regional plan. It was an opportunity to celebrate our accomplishments, but to also challenge what currently exists.

At first glance, the wide range of topics presented in these proceedings may appear to be eclectic but there is a basic structure that starts with topics related to the regional scale, moves to community scale and finally focuses on individual, local initiatives. This is because "greening the landscape" cannot be reduced to a simple formula. We recognize that the undertaking is enormous, and we want to challenge ourselves to embrace this complexity.

Frank Palermo

CONFERENCE PROGRAM

WEDNESDAY MARCH 20TH, 2002

Welcome
Councillor Dawn Sloan
Denise Phillipe Evergreen
Susanna Fuller Ecology Action Centre
Frank Palermo School of Planning

Keynote Address
Lucien Kroll

THURSDAY MARCH 21ST, 2002

Theme: Greening at the Regional and Urban Scale

Welcome
Frank Palermo

Guest Speaker
Ann McAfee
Co-Director of Planning, City of Vancouver
Life After Concrete: Creating a Greener Vancouver

Panel Discussion
Integrated Protection and Restoration of Green space at the Three Scales; Challenges and Opportunities
Panelists: Carol Macomber, Capital District Task Force; Anne Muecke, HRM. Moderator: Graham Read

Workshop 1
Green and Smart What are Our Choices?
Presenter: Melanie Hare, Urban Strategies;
Panelists: Ion Startup, Neighbourhood Developments; Patrick Moan, Dalhousie School of Planning.
Moderator: Howard Epstein

Workshop 2
Trails and Trains: The CN Rail Cut Project
Presenter: Marcus Garnet
Panelists: Therese Delorme, HRM; Mark Poirier, Halifax Urban Greenway Association.
Moderator: David Mitchell

Panel Discussion
Planning the Regional Ecology; Lessons from the Atlantic Region and Beyond.
Panelists: Neil Dawe, St. Johns Grand Concourse Authority; Jim Baird, City of Saint John; Don Poole, City of Charlottetown, John Charles, HRM; Melanie Hare, Urban Strategies. Moderator: Mark Poirier

Workshop 3
The Tyranny of Standards; an Obstacle to Green Development?
Presenters: Peter Klynstra and Cary Vollick.
Moderator: Jill Grant

Workshop 4
Coming to our Senses: Urban Walk with Naturalist Chris Brackley

Public Forum & Design Workshop
Planting the Town Green.
Design workshop and public discussion led by Dalhousie School of Planning Students and Susan Guppy

Friday March, 2002

Theme: Greening at the Community and Neighbourhood Scale

Welcome
Susanna Fuller, EAC

Workshop 5
From Lean and Mean to Green and Clean; Transforming Brownfield Parks
Presenters: Colin Morrell, Phase Remediation and Steve Armstrong, Dalhousie Dept of Biology; Ann McAfee, City of Vancouver
Moderator: David Stonehouse

Workshop 6
Urban Agriculture Local Food Production and Distribution
Presenters: Marjorie Willison, Urban Farm Museum; Geordie Ochterloney, Home Grown Organics; Moderator: Susan Guppy

Workshop 7
Building Partnerships for Urban/Suburban Green Space
Presenters: Neil Dawe, St. Johns Grand Concourse Authority; Nancy McMinn, City of Charlottetown. Moderator: Deborah Grant

Workshop 8
Your Schoolyard is Your Neighbourhood Green Space
Presenters: Denise Philippe, Evergreen; Rhea Dawn Mahar, Tree Canada.
Moderator: Doug Conrad

Workshop 9
More Green Space (Technically Speaking) Solar Aquatics in Your Neighbourhood
Presenters: Claudiane Ouellet-Plamondon, Dalhousie Biological Engineering, Delaine Clyne Dalhousie School of Planning.
Moderator: Jaret Lang

Workshop 10
Pocket Wilderness; Experiencing Nature in the Neighbourhood Backyard
Presenter: Patricia Manuel, Dalhousie School of Planning; Moderator: Elizabeth Crocker

Lunch time presentation
Local Success Stories
Minesville Community Association - Grant Macdonald; Glace Bay Portable Parks (Highland sod ltd.) - Christine LeVatte
Coastal Water Trail - Dave Adler
John Meagher Garden - Helen Maclean

Workshop 11
Colour It Green Art Workshop
Facilitators: Lucy Trull, Jamie Anfossi

Presentation
Defining the Way Ahead.
Key directives from workshop sessions.

Concluding Remarks

Presentation of Awards

Opening Remarks

Frank Palermo
Dalhousie School of Planning

Welcome. It is appropriate that we should get together in this public forum on the first day of spring.

This is the break. An extraordinary opportunity to share insights, develop new ideas, and to break the pattern.

Each year the Planning School, with many friends and supporters from both public and private sectors, organizes a public forum on some issue of immediate importance to the community. In recent years we considered questions such as "Which Way Should Metro Grow", "Centres in the Region", and "Halifax in Motion".

This year, in partnership with Evergreen and the Ecology Action Centre, the focus is on Greening the Urban and Regional Landscape. This conference is one of five to be delivered across Canada, as part of a three year Evergreen Canada Initiative.

Optimistically, I continue to believe that this is a significant opportunity and an important moment in the history of cities. Change is pervasive locally and globally. We know that we can't do things the same way, follow a set pattern or try to recapture a nostalgic myth of the past. The challenge is enormous, and expectations are great.

Opportunities are everywhere. Let me focus on the Halifax Regional Municipality.

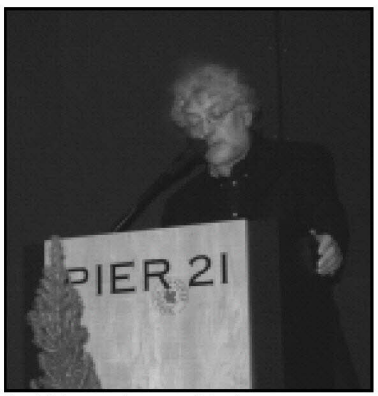
Work is underway on the Regional Plan, which must deal with growth, transportation, environment and quality of life.

Ideas are being put together for a Capital District Plan which promises to celebrate history and also define our future.

There is also work in progress on the Waterfront Plan, Barrington Street revitalization, and a Transportation Strategy.

This moment here and in many places is filled with opportunity, an awareness that things have to change and a passionate belief that it has to be done right. We demand and expect the best.

The environment is key to all these considerations. The city that we build, the prospects for our region, the quality of our lives, the legacy for our children is tied to our attitudes and values related to the environment.



Frank Palermo welcomes participants on Wednesday night

There are two points to be made as a context for the next two days:

First, the environment cannot be considered in isolation because it is affected by everything else: land use, growth, and economic development. Our activities affect the air we breathe, the food we eat, the ground we touch.

Second, I want to argue that the environment should come first. In planning and in thinking about the region we must start with the ground. Nature and land must be seen as a basis for decisions related to where growth happens, the form of our communities, our commitment to transit, our quality of life.

To help us recognize local potential, increase awareness and make a difference, we are very fortunate to have here with us our keynote speaker Lucien Kroll, a distinguished planner and architect with a long list of accomplishments. I would like to recognize just four qualities of his work.

For one, Lucien Kroll embraces complexity and diversity, and resists oversimplification. For someone like me, who believes that there ought to be some room for chaos, this is a sign of quality.

Secondly, for many decades now he has advocated and practiced a participatory design process, or simply working with those who will be affected by his designs.

Thirdly, his work has a broad scope and depth of vision. It starts with the individual, and embraces a view of the planet.

Finally, his is an ecological approach. Ecolonia, a new community in the Netherlands and a new high school in France involved not only participatory design sensitive to community values, but also the most stringent ecological design and construction criteria. This included energy, lighting, rainwater, toxicity of materials, potential for reuse and recycling, waste management on site, and green space.

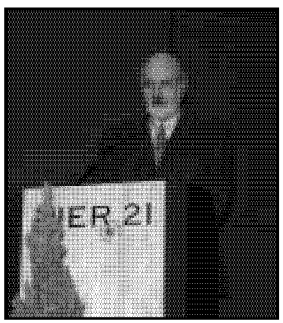
This is a man of ideas and action and vision. Please welcome Lucien Kroll.

Keynote Address

Lucien Kroll

Architect and Planner,
Brussels, Belgium

The basic assumption underlying the Breaking Ground conference is that "greening" is more than a physical gesture. It is more than planting trees and ripping up lawn; it goes beyond rooftop and community gardens and protecting coastal areas; it is even more than neighbourhood parks, sensible growth strategies and enlightened development standards. Above all, it is a culture and an attitude.



Lucien Kroll delivers the keynote address on Wednesday night

It was therefore appropriate that the opening address was delivered by Mr. Lucien Kroll, a Belgian architect and planner who dedicated his entire career to developing human ecological projects. Kroll practices a brand of architecture diametrically opposed to what he calls the "modern project." This modern project is rooted in the linear, rational thinking as expressed in the Roman military camp, in LeCorbusier's "vertical city", and today in the monoculture of mass-produced settlements. "The grid", be it vertical or horizontal, tends to obliterate all signs of nature, and of previous human habitation.

To Kroll, the grey homogeneity of modern, sprawling, "global" landscapes is rooted in a militaristic attitude. This attitude praises simplicity and mechanistic efficiency. Unrestrained quest for profit produces places that are neither ecological nor humane (never mind inspiring!).

For many years Kroll has advocated (sometimes at the displeasure of his clients), an attitude in architecture that embraces local history, the diverse views of local people, and the complex web of connections that link culture and nature together. Our understanding (or lack of understanding) of these links will always be reflected in the landscapes we create.

Kroll is adamant about the need for architecture to relate to its natural and human context. His great technical capacity, and a method of participatory design, ensures that what he advocates is not an abstract concept. For example, one of his latest projects lived up to over 60 ecological indicators. Only by embracing complexity and diversity in the design of human settlements, can we hope to create vibrant communities and preserve (or recreate) natural components of the landscape.

However, the transformation is not a quick revolution, but rather it involves a gradual reconciliation of our needs with the natural environment. While Kroll's work is based on very clear and definite principles, he works more like a homeopathic doctor than a brain surgeon. For instance, when asked to "improve" a decaying apartment complex in East Berlin, Kroll did not choose the easy path of demolishing everything and starting from scratch. Rather than demolishing the complex, Kroll understood that it already contained a "living community" capable of participaitng in decisions affecting their lives. He worked with a sociologist to ask residents what changes they would like to see: whether they preferred to have an extra balcony, tiles in the bathroom or a bigger window.

Balconies were placed where the families wanted them, as were other modifications. There is a hope and a faith in this approach that residents know best; that with time, balconies will fill up with greenery; and that in design "dialogue" is always better than "monologue". The goal is to stimulate residents to take control of their living environment; as Kroll once observed, to paint one's door a different colour in a long row of identical doors takes an act of courage, but to add your colour to an already varied row is natural and straightforward.

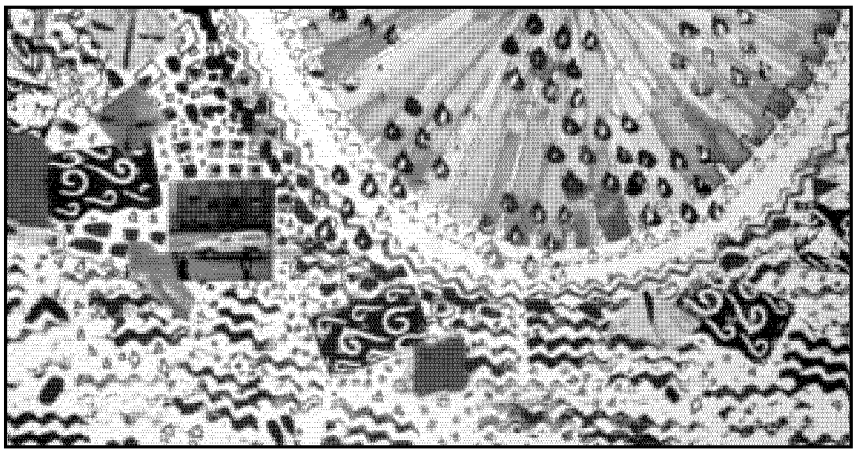
While there is an inherent gentleness in Kroll's approach to design, he is not afraid to make bold statements. In one case, when asked to address a speeding problem on a major throughfare in a poor area of Amencon (Normandy), he went beyond the usual asphalt speed humps, and proposed protruding earth mounds. The new hills transformed the straight, loud and dangerous road into a sinuous street. Municipal gardeners and local residents were encouraged to plant and cultivate gardens on the hills. Car drivers may be a little frustrated, but accidents are unknown on this "green" street.

Kroll is an idealist, but he also knows how to turn ideas to action. His numerous projects, sitting comfortably in the landscapes of Belgium, France, Netherlands or Rwanda testify to the fact that a design, no matter how brilliant, cannot be implemented without the cooperation of others (including developers). Asked whether his projects are more expensive, he responded that he is willing to work with developers to find alternatives without compromising design.

Members of the audience also asked whether participatory design slowed the projects down excessively. To this question, Kroll asked in return "What is the speed of an architect?"; an architect works better when he can get others excited about his work, and this requires dialogue. "Without complexity nothing is simple", including greening the city.

Kasia Tota

GREENING AT THE REGIONAL & URBAN SCALE



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Guest Speaker

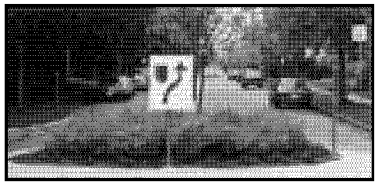
Dr. Ann McAfee,

Director of City Plans and Co-Director of Planning for the City of Vancouver

Life After Concrete: Creating a Greener Vancouver

In Vancouver, the post war years were best described as "paving paradise". Low density development sprawled into rural areas with a loss of agricultural and recreational lands. In response, the Province of BC established an Agricultural Land Reserve. The Greater Vancouver Regional District created a "Green Zone" around the region. The City of Vancouver built Greenways and Wellness Walkways. It required developers to provide parks and public spaces. It also and adopted a Tree and Landscape By-law. Some programs have worked and others have been less successful. Ann McAfee's presentation illustrated the package of actions the Vancouver region has used to green the urban and regional landscape. In her talk, she spoke about some of the key initiatives undertaken by the City of Vancouver in the realm of "greening", their successes and challenges.

After a few years of decline in the 1970s, Vancouver's population has been steadily growing, and is now over half a million. The city's land base has been fully developed for many years. By the year 2021 Vancouver could reach a population of around 635,000, which will clearly place a lot of pressure on the city's land resources, including green space. Population growth is being accommodated in new housing created largely through redevelopment and infill. These are expected to be able to accommodate anticipated growth up to 2021. Through a number of integrated strategies and community initiatives Vancouver is protecting and expanding its network of green areas.



When it comes to greenspace, Vancouver is reaping the benefits of a general change of plans...

The regional growth strategy applicable to the City of Vancouver is The *Livable Region Strategic Plan*. The Greater Vancouver Regional District Board (a working partnership of twenty-one municipalities and one electoral area) approved the plan on January 26, 1996. The Plan describes a growth strategy for the region for a population of about 2.75 million, nearly a million more people than currently live in the Greater Vancouver area. The *Livable Region Strategic Plan* is intended to preserve and enhance the quality of life for the region's citizens, and protect the living environment. The regional plan incorporates policies, targets and maps, and is based upon four fundamental strategies:

(1) Protect the Green Zone
(2) Build Complete Communities
(3) Achieve a Compact Metropolitan Region
(4) Increase Transportation Choice.

The implementation of the plan is multi-faceted, but the protection of green zones is clearly at the top of the list and forms the basis for other decisions.

The GVRD Green Zone comprises 205,000 ha or 70 percent of the GVRD land area. Much of the Green Zone is protected by government policies. The Green Zone includes:

Agricultural Lands	39%
Parks	9%
Watershed	24%
Conservation (marsh)	16%
Waterfront & Streams	12%

Agricultural Land Reserve (ALR)

The ALR is a policy adopted by the Provincial government to protect productive agricultural lands. Prior to the 1970's about 6,000 ha of agricultural land in BC was being lost annually. In 1973, 4.7 million ha (5 percent of the province) came under the protection of the Agricultural Land Commission. The amount of land in the ALR continues to be about 5 percent of the province. The ALR policy sets out the boundary area for development and is meant to protect valuable agricultural land. Release of land from the AGR is guided by set criteria and determined by the Provincial Agricultural Land Commission.

Regional and City Parks

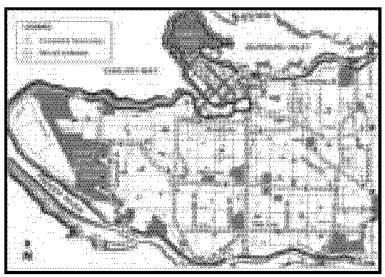
Regional parks in the Vancouver region amount to 11,400 hectares in 22 green spaces. They are places for recreation and education and provide for a vast array of native fish and wildlife. Regional parks protect sensitive habitats, landscapes and views, big trees, and important heritage buildings and sites.

The City of Vancouver has a park standard of 2.75 acres/1,000 people (1.11 ha/1,000 people). The park standard is maintained by requiring developers of large sites to provide park space on site. Developers of smaller sites pay Development Cost Levies, part of which go to maintain park standards in response to growth.

Greenways Program

Greenways in Vancouver are green paths for pedestrians and cyclists. They have a legacy dating back to the Bartholomew Plan of 1928, with his vision of a continuous waterfront parkway from Stanley Park around False Creek. Vancouver Greenways can be waterfront promenades, urban walks, environmental demonstration trails, heritage walks, and nature trails. Their purpose is to expand the opportunities for urban recreation, to provide alternate ways to move through the city, and to enhance the experience of nature, community, and city life.

In 1991, Council appointed the Urban Landscape Task Force to report on the current use and future management of Vancouver's urban landscape. In their final report, Greenways-Public Ways, the Task Force recommended the development of a city-wide system of Greenways. In 1995, Council adopted the Vancouver Greenways Plan. New initiatives often require new funds. To minimise the cost of the new Greenways program, Council looked for ways to reallocate existing resources (in this case City owned roads and street improvement budgets) to the new Greenway use.



Vancouver's City Greenways (www.city.vancouver.ca)

City Greenways

The proposed City Greenways-Public Ways network of fourteen routes will be approximately 140 km long. Street rights-of-way will make up approximately 50% of the network. As a result of the legacy of the Seawall portion of the Seaside Route, 30% of the network is already in place. While Greenways and Public Ways are generally evenly distributed throughout the city, routes are concentrated in areas with greater population density and a higher number of destinations such as the downtown peninsula. When the network is complete, a City Greenway or Public Way will be no more than a 25-minute walk or a 10-minute bicycle ride from every residence in Vancouver.

Neighbourhood Greenways

Neighbourhood Greenways are smaller in scale and more local in focus than City Greenways. They are not predetermined like City Greenways, but are designed and developed in response to local initiatives. Neighbourhood Greenways completed in the last few years demonstrate a range of possibilities for public involvement in community improvement projects, as well as the commitment and resourcefulness of local resident and artists. There are over a dozen Neighbourhood Greenway projects already built or in various stages of development across the city.

Blooming Boulevards

The City of Vancouver often looks beyond the regular mandate of the Greenways Program and attempts to integrate the community and needs of citizens in unique ways. These situations often evolve out of specific needs or desires that are expressed by a group of involved citizens. While such projects are not formally greenways, they enhance the quality of a community and create a friendlier pedestrian environment.

Green Streets Program

The City of Vancouver's Green Streets Program encourages citizens to beautify their neighbourhoods by planting and maintaining street gardens. This program also provides an opportunity for neighbours to meet. Street gardens are landscaped traffic circles and corner bulges in neighbourhoods added by the City as part of an on-going program to slow traffic and increase safety in residential areas. The great thing about the initiative that any one person or group can sponsor a "green street" project, and the process is clearly laid-out on the city's website. Volunteers are also recognized during the annual Green Streets Garden Party usually held in the fall.

The Wellness Walkways Project

The Wellness Walkways project is co-ordinated through the Greenways and Local Improvements programs. It combines aspects of Neighbourhood Greenways, the Residential Street Program (using local initiative funding), developer funding allocated for streetscape improvements and other funding sources to improve access to and usability of the streetscape for a unique mix of users in this section of the Mount Pleasant community.
For example, in certain areas (around health care facilities etc.) patients and residents may have a wide range of mobility restrictions. The Wellness Walkways or circuits are meant to retrofit existing public spaces to respond to the special needs of those with challenges posed by illness, disability or age.

The Wellness Walkways are composed of several layers of improvements: basic street improvements (funded through standard local improvement processes); accessibility and safety improvements (funded through existing operating or capital programs); and unique elements that allow for greater therapeutic use of the streetscape (to be funded primarily through external fundraising initiatives and limited Greenways capital funds).

Vancouver City Tree Bylaw (1992)

This bylaw provides for fines of up to $2,000 to anyone found to "remove, destroy, cut, deface, trim or in any way injure, impair or interfere with any street tree except as expressly authorized to do so by the Board of Parks and Recreation".

Vancouver has also adopted a Tree By-law to regulate the cutting and planting of trees on private property. If development requires tree cutting then tree replacement planting is a condition of redevelopment. Fines for unauthorized cutting range from $500 to $20,000.

Vancouver Blueways

The Vancouver Water Opportunities Advisory Group is made up of volunteers from the public and private sectors appointed by Council to look at water related issues and opportunities for the City of Vancouver. The group was formed in 1995. Over the summer of 1996, the Water Opportunities Advisory group held a series of public meetings to hear what other people had to say about Vancouver's waterfront and waterways. The group's vision includes a "A waterfront city where land and water combine to meet recreational, environmental, and occupational needs of the City and its people". This is to be accomplished based on the principles of maximum access to waterfronts and waterways (through transit links etc.); diversity of water based activities along the waterfront and in the water that encourage industry, commerce, recreation, and education; Integration of land and water visions; and environmental sensitivity.

Conclusions

Vancouver's varied policies of "Greening" the city are now recognised as benefiting the environment, health and recreation, community life, and the economy. With tourism as a key industry, parks, walkways and other green initiatives encourage people to visit, and businesses to locate in the Vancouver area.

Vancouver has found that to green the city requires a variety of tools: regulation (e.g. ALR, Tree By-laws); incentives (seeds and plants for community gardens) ; reusing existing resources in new ways (roads become greenways); and requiring new development to contribute to building the city's parks and public spaces. Together, many actions by many people are required to green a city. As Charles Little said:

"To make a Greenway is to make a community and that, above all else, is what the movement is about".

http://www.city.vancouver.bc.ca
http://www.gvrd.bc.ca/

Kasia Tota
with assistance from Ann McAfee

Panel Discussion: Greenspace at Three Scales

Panelists:
Anne Muecke, HRM Regional Planning;
Ian Startup, Neighbourhood Developments; Allan Eddy, Nova Scotia Power; Carol Macomber, HRM Capital District Task Force;
Moderator: Graham Read

The objective of this panel discussion was to provide an integrated approach to planning for green space at three scales:

(1) Regional Scale
(2) Urban Scale
(3) Community Scale

Participants discuss greenspace maps

Anne Muecke

Anne Muecke is currently working as a Manager for the HRM Regional Plan. This project is a long-term, high-level planning exercise, which will look twenty-five years into the future and beyond, in terms of scope.

The objective of this type of planning review is to identify the values important to residents of HRM.

Mrs. Muecke noted that it is very important to recognize what she termed as "enduring values", or simply values that will be reflected in architecture and development and will therefore be around for some time into the future. Enduring values may also reflect the importance of other elements, such as natural settings, coastal areas or parks, which provide recreational opportunities and a place to reflect. In short, enduring values can be seen as the identity, or character, that a city or municipality creates for itself and wishes to maintain in the future.

Halifax's first plan was completed 26 years ago in the 1970s and was geared toward encouraging: (a) economic development, (b) infrastructure, (c) housing, and (d) roads. The plan was made with the assumption of cars being the main mode of transportation, and this had an impact on the planning climate. For example, parks were planned as large blocks of land, located outside of the city, to which people could drive on weekends. At this time, land not used for development or green space, was considered to be without value.

The current planning efforts will focus on economic development and the environment. This plan acknowledges that all land has value, to either the economy or to people as a place that is important to them. The new approach realizes that land is fragile, and the types of enduring values can be easily undermined by improper planning or a heavy-handed approach to development.

Mrs. Muecke suggested that planning must look far into the future because the places we create and develop will be with us for a long time and will also affect future generations.

There is also the economic value of HRM's physical setting. Anne Muecke noted that many people come to Nova Scotia and HRM because of the "green, the blue, and the view." This suggests that forests, lakes, coastal areas and views should be protected. Not only do they reflect our sense of the beauty of the place where we live, but also because they are an attraction for HRM, affecting both the tourism value of the area and the quality of life for residents. An attractive place can also be "loved to death" if growth is not managed.

Finally, Anne Muecke spoke about development in very general terms. She related that the new approach to planning in HRM will be focused on cluster development and higher densities where possible. She made it clear that green spaces are also very important and that development will be interspersed with green spaces. In addition she noted that fragile land or land with high natural values not suited to development will be identified in the planning process.

Ian Startup

Ian Startup, who is a small developer, spoke from the perspective of the building industry, and his message was simple: plan ahead. Mr. Startup related several stories in which development had failed in its delivery of homes that provided a sense of living space because of improper planning.

He gave an example of communities in Holland that were well-planned and in consequence were very "liveable." Homes were designed to work as a community, yet provided people with an individual sense of home ownership.

In Canada we still have a pioneer culture, in which we like to carve out a place in the woods. We still perceive space to be limitless. This is very different from Holland, and while we enjoy our space, modern developments do not encourage a a sense of close community.

Ian Startup concluded that it is, in part, the responsibility of the building industry to build healthy homes and recognize the value of the environment in community design.

Allan Eddy

Allan Eddy, as a forestry Manager for Nova Scotia Power, presented the company's position on the management of green space. Mr. Eddy noted that the corridors beneath power lines are considered green space, and in total, Nova Scotia has over 30, 000 kilometres of powerline corridors.

He discussed how Nova Scotia Power is interested in managing these areas as green spaces, and how the company is making an effort to reduce the use of chemicals such as pesticides and to promote the corridors for use by people.

In addition to this discussion, Allan Eddy outlined some of the challenges that face the power company. These are:

(a) utilizing vegetation that is compatible with overhead power lines and planning new developments that incorporate this in their design

(b) at the streetscape level the company has to maintain both the power utility infrastructure and the trees that occupy the street.

Carol Macomber

Carol Macomber represented the HRM Capital District Task Force, a new task force established to develop plans for HRM's urban core. She spoke about green spaces in urban areas.

Ms. Macomber began by stating that ideally urban areas should have a dense central core. This restricts sprawl and concentrates transportation, making cities more efficient in the use of space.

She also noted that many people think that undeveloped or vacant lots should automatically be used as green space. She stated that this is not necessarily the best use of these sites and not all unused lots should become urban parks. She does, however, recognize the critical importance of urban green space as well as larger parks located outside of the central core. She added that the public at large should view parks and green spaces as an essential service.

In addition to her discussion on urban parks and green spaces, she added that there needs to be a change in perception regarding green spaces that should extend also to our private homes: groomed lawns are not green spaces. She elaborated by stating that lawns offer little natural diversity and require lots of maintenance and the use of chemicals that are harmful to the environment. The position of the Task Force is that within the urban core residents should be encouraged to replace their lawns with wildflowers or vegetable gardens (this would have to be reflected in HRM Bylaws).

Over and above this discussion, the urban/rural character of HRM was also mentioned, along with the importance of connecting rural areas to the urban core with trails. Carol notes that populations are urbanizing and that the municipality must find creative ways to establish green spaces within the urban core. She adds that green spaces can be used as a way to draw people downtown and that they are better than malls in their ability to attract people to urban areas. For example, the Public Gardens is generally more popular with people than Scotia Square.

Carol finished with a discussion on the importance of street trees and argued that tree-lined streets are highly attractive and increase the quality of life in the urban core.

In this respect she disagreed with Allan Eddy from Nova Scotia Power, who made a case for reducing the number of large trees in new subdivision developments because they interfere with power lines. We have a choice of maintaining our beautiful streetscapes, or we can become a city of small trees and shrubs.

Graham Fisher

Workshop: Green and Smart: What Are Our Choices?

Presenter: Melanie Hare, Urban Strategies Inc. Panelists: Ian Startup, Neighbourhood Developments and Patrick Moan, Dalhousie School of Planning;
Moderator: Howard Epstein, MLA

This workshop discussed the various aspects of healthy growth management for the protection of greenspace. Melanie Hare began by outlining some of the major policies being implemented in Canada. She discussed some of the approaches and tools being used and also offered some suggestions on how to implement effective growth management.

Patrick Moan then presented some of the main ideas of Smart Growth, which include development that is more compact, less reliant on car use and has more community amenities than standard development. He began by explaining the origins of Smart Growth, and discussed who supported this movement. Patrick concluded by mentioning some of the future research that is ongoing in this area.

Ian Startup presented his neighbourhood project in Mahone Harbour, NS that follows some of the principles that Patrick and Melanie discussed. This project reflects Ian's experience living in Holland and included developing a sustainable community on a 45 acre lot.

Following these presentations Howard Epstein asked for questions from the audience. The consensus from the audience was of a general acceptance of these ideas of growth management, however questions were raised about implementation, particularly with respect to how these policies influenced transportation strategies.

Focussing on Quality of Life

The principles of smart growth have been supported by numerous organizations interested in linking a region's collective quality of life and economic well being. This is not the same thing as claiming smart growth agendas have radically transformed development patterns. What we see are the early stages of a movement whose impact has not been accurately measured. Years will pass before the impact of so-called smart growth will be fully understood. Certainly all those pursuing smart growth agendas believe that a mixture of uses can be delivered in such a way that satisfies market needs, improves mobility, uses land more intelligently, and creates higher quality communities than have been built over the past 50 years.

Quality of life is a central aspect of the smart growth agenda. It is an agenda which seeks to attract and retain top talent by creating communities that offer high amenity value. Significant amounts of energy, capital and cooperation have gone into developing smart growth agendas in the United States. David Crombie, Chris Winter and other Canadian observers of urban affairs have noted that Canadian cities are losing their edge to increasingly competitive Americans cities. Strong mayoral leadership and smart growth coalitions have played a large role in this turn-around.

Smart growth has not done away with the construction of new communities in which there is strict separation of uses and complete reliance on the automobile for all daily activities. Smart growth agendas are in the earliest stages of altering development patterns in places like Maryland and Utah. Increasing numbers of projects on the ground however do indicate change is tangible. Examining how various levels of government and the private sector support smart growth in a variety of geographical locations is a useful exercise. It allows for contrast and comparison with one's own environment. For example, if federal or state/provincial funds are making it possible for local government to create design centers that

Participants of the smart growth workshop

enable residents to visualize what a high quality, compact, mixed-use project actually looks like, then perhaps other jurisdictions might want to know how to access similar resources.

Community building as guided by elements of New Community Design is an inherently more complex process. It is more difficult to design and build a high quality, mixed-use environment, than produce a conventional subdivision or strip mall. In time, these difficulties should place greater demands on planning professionals, making their jobs more challenging. In the near future, smart growth agendas may be further advanced by the increased use of visualization tools that assist with both community design and long range planning.

Future Research

Conventional development has more than fifty years of momentum behind it and change will be experienced incrementally. The Bank of America, the largest arranger and provider of commercial and residential real estate finance in the United States, has already committed over $350 billion over a 10-year period to community development projects related to smart growth. Although this is a promising start, far more needs to happen before development patterns are to be appreciably altered. The majority of the banking and investment industry still favours single-use projects. Wall Street remains entrenched in investment practices that favour what is known and safe. Typically, this translates into strip malls and conventional subdivisions where a strict separation of uses is enforced.

New Community Design projects face additional obstacles. Fire departments frown upon narrow streets that slow traffic to accommodate pedestrians and bicyclists. Developers who are inexperienced with multi-phased, mixed-use development will continue to favour less demanding projects. Government budgets in some cases will not allow for the kinds of financial incentives changing development practices in places like Gaithersburg, Maryland and Austin, Texas. Exploring these impediments in greater detail and rigorously ascertaining how they are overcome in a variety of locations may prove useful to policy makers seeking to increase regional competitiveness by enhancing quality of life through community design.

Ravi Singh

Workshop 2: Trails and Trains: The CN Rail Cut Project

Presenters: Marcus Garnet, HRM
Therese Delorme, HRM
Mark Poirier, Halifax Urban Greenway Association
Moderator: David Mitchell

Presenters share their viewpoints.

The CN Rail cut project is a type of undertaking best discussed at the local scale. At the moment, there are numerous people working together at the grassroots level, trying to create opportunities for public access to the rail cut.

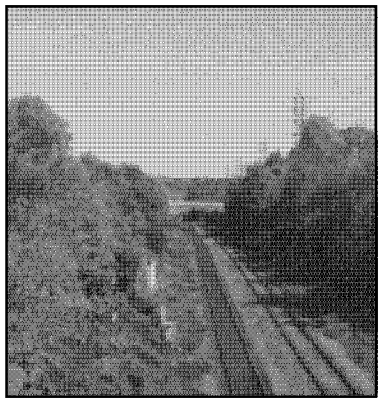
A brief historical perspective on HRM's attempts to secure public access to the rail cut was presented. According to Mr. Garnet, the Halifax Parkland Strategy (1985) proposed a series of linkages between greenspaces and campuses, which would result in a system of greenways that would extend existing parks. After privatization of CN Rail, the former Crown Corporations surplus land holdings began to be sold off. This was the case in Halifax, where part of the cut began to be gradually sold to private interests. According to Mr. Garnet, there is a movement currently afoot in North America where trails are being laid besides actively used rail lines. However, CN Rail does not support Rails with Trails, as it might generate legal liability in the event of an accident. Nonetheless, local residents are currently using the CN Rail cut as an informal path system.

The growing interest in trails is based on people wanting healthier lifestyles and a healthier environment. The most visible aspect of this growing interest is the Trans-Canada Trail program, which is an attempt to connect all Canadian provinces through a network of multi-use trails. The public health and environmental issues created by sedentary lifestyles, traffic congestion, parking problems, auto emissions and land consumption by automobile transportation, are all issues that can, in part, be addressed through the provision of trails.

The land owned by CN Rail includes the rail cut, in addition to the land at grade on both sides of the cut. The cut averages about 100 feet in width. There were originally two rail lines within the cut. However 2/3 of one of the tracks has been taken out, resulting in vacant rail bed.

The Halifax Peninsula Rail cut represents not only a physical connection, but also a symbolic one. It is a link to our heritage, to to nature, to each other and a link to the future. The link to history can be found in the role that it played in bringing disaster relief from across North America to Halifax after the Halifax Explosion, as well as being the starting point in the long voyage across Canada for the many immigrants passing through Pier 21. The rail cut is a link to the nation and the world because it connects both the CN Transcontinental Railway terminus and the Halifax Ocean Terminals, with the rest of Canada and North America. The rail cut is an important link to nature on the Halifax Peninsula as it contains vegetation, as well as many types of birds. It also acts as a corridor for small mammals, and provides a glimpse into the rock cut strata of the Halifax region.

The rail cut also acts as an ad-hoc buffer and trail system. An informal pedestrian route already exists along most of its length. It promotes shortcuts between streets and neighbourhoods. It



source: http://www.region.halifax.ns.ca/greenway/

establishes a buffer for residential districts. In addition, area residents use it for personal fitness, as well as a relief from their built surroundings.

No shortage of ideas has been associated to the rail cut over the years. It has been proposed that the excess land be used for residential, or other types of development. A highway link between a proposed Northwest Arm Bridge and a Third Harbour Bridge has been discussed. Some people and organizations have talked about the possibility of using the air rights over the tracks for a highway link. Other ideas included: using the rail cut for a truck way and/or bus way, as a light-rail route, or as a commuter rail route for peak hour commuter service.

The proposed commuter rail route is still under discussion with CN. A study undertaken by HRM concluded that 1/3 of the regional municipality's population lives along the catchment area of the proposed rail service. The catchment area is identified as the area located within 1 km of walking distance or 5 km of driving distance (park and ride) from the proposed service.

Both the region and the neighbourhoods that abut the rail cut would benefit from having it open to public access. The region could benefit by having a continuous extension of existing parks. The rail cut could act as an off-road fitness trail, linking parks and campuses. It could also be a strategic trail link between the harbour and the Northwest Arm. People from across the region could use it for nature appreciation, heritage interpretation, as well as for its many views. The neighbourhoods could benefit by having the vegetation saved and maintained. Existing graffiti and accumulated garbage could be removed. Abutting properties could be protected through the use of fencing. The different uses could be managed through design and enforcement. Campus related traffic and parking could be reduced. More importantly, the uncertainty factor would be resolved. Even CN would benefit by reduced trespassing, increased surveillance of the rail cut, relief from vegetation control responsibility, and a reduced risk of debris on the tracks. It would be an opportunity for public education and an enhanced public profile.

Opportunities for synergy exist. Related projects and issues are currently being discussed or planned by a variety of area organizations. The Bikeways Task Force is looking at the possibility of implementing bike trails. St. Mary's University is discussing linking its Family Centre with Connors Field by a pedestrian bridge over the rail cut. Halifax Shopping Centre is proposing a rail crossing to link itself with area residential districts. Related issues being discussed include CN bridge maintenance, the commuter rail proposal, as well as the Northwest Arm small ferry concept.

Following Mr. Garnet's presentation, Mr. Poirier explained what led to the birth of the Halifax Urban Greenway Association (HUGA), as well their objectives, plans, and concepts for the rail cut.

A number of issues in the general area led

source: http://www.region.halifax.ns.ca/greenway/

to the birth of HUGA. Around 1996-1997, land from the cut began to be sold off by CN Rail. In 1998, new owners blocked off the existing right-of-way to Point Pleasant Park. In 1999, there was a development on the waterfront that extended 100 feet into the Northwest Arm, thereby cutting off a part of the view of the Arm. These issues, as well as opposition to rezoning of some of the land parcels, led local residents to form HUGA in November 2000.

There are numerous objectives associated with HUGA. The organization is opposed to the creation of an industrial wasteland as a result of rezoning lands for industrial purposes. HUGA is in favour of protecting the heritage aspects and natural habitat that are part of the cut. The group wants to encourage public access to the cut, and is therefore in the process of advising HRM on the creation of a network of multi-functional trails (pedestrian and bicycles).

At a public meeting held to discuss the rail cut project, many issues were discussed. These included: managing concerns of abutting property owners, unaesthetic fencing, more links to Point Pleasant Park, and linking water access points with the existing park system. There are also concerns of vandalism and liability associated with the rail cut project. Some property owners abutting the cut on the north section (the south section has fewer abutting neighbours) fear that their privacy would be jeopardized, and that their property might be trespassed.

A preliminary concept plan for the rail cut has been presented to HRM. The concept plan favours nature preservation, multi-purposes trail systems, and indicates potential access points for public use. HRM is currently reviewing the plan. The next step in the process will be deciding within the next couple of weeks on the type of phasing that HRM will be recommending. HUGA will be looking for corporate sponsorships to make the project a reality. HRM will proceed with land acquisition through the negotiation of development agreements. HRM is committed to the project.

Luc Ouellet

Panel Discussion: Planning the Regional Ecology; Lessons from the Atlantic Region and Beyond

Neil Dawe, St. John's Grand Concourse Autority; Jim Baird City of Saint John Planning; Don Poole, City of Charlottetown Planning; John Charles, HRM Parks and Open Spaces
Melanie Hare, Urban Strategies Inc.
Moderator: Mark Poirier

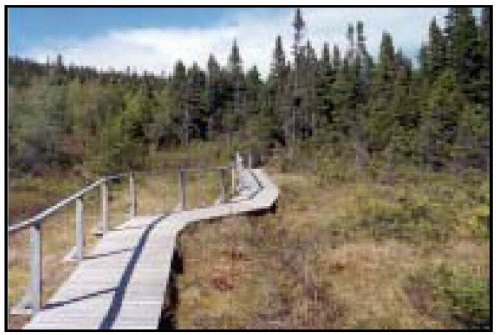
Grand Concourse, NF

Neil Dawe

The idea of a Grand Concourse began in 1989 and since 1992 the City has been developing it as a green space system in St. John's. Mr. Dawe offered seven important points for the success of this project:

1.The plan is based on systems based planning, focusing on both the built and natural environments;
2.The plan is to be a part of the regional framework and should be based on habitat requirements;
3.Mapping of important habitats and corridors using both GIS and GPS technologies;
4.Link and identify ecology to social and economic benefits in order to receive funding;
5.Develop " Best Practices";
6.Promote awareness of the project
7.Develop a system to monitor and generate feedback on what you are doing.

Mr. Dawe stressed the importance of using both science and research to quantify the project.

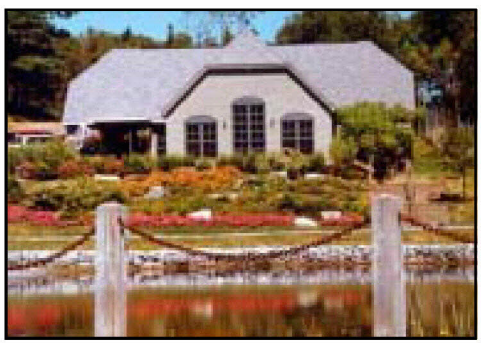


Grand Concourse, NF

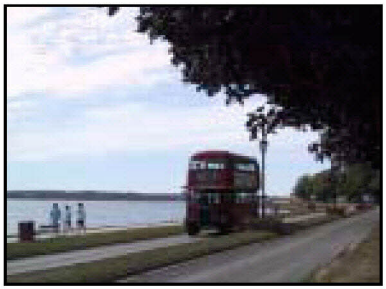
Jim Baird

Jim's approach to greening Saint John is "working with what you've got." Saint John is an industrial city with a large oil refinery and pulp mill. As a result, the port is integral to the city's economic viability. Saint John is an old city with a lot of industrial land for conversion into greenspaces. Rockwood Park, a large park in the centre of the city, is an important area for residents (much like Point Pleasant in Halifax). Another important green space in the city is a downtown graveyard where people actually walk through it, instead of around it, because of its greenery. Jim listed a number of projects the city has initiated over the years in order to bring green spaces back into the city.

One successful project is the greening of downtown King Street. In the early 1980s the street was void of green areas. The city expanded pedestrian areas, planted trees and flowers, beautifying the area and making it more pleasant for area residents. The city is also involved with " Communities in Bloom" which promotes individual greening. Another project is " greening the thruway" a project which saw a cement median torn out of a divided highway and flowers planted in its place. The final project Jim described was greener parking lots. Parking lot owners are encouraged to replace cement barriers with planters and other green objects such as trees and shrubbery.



Rockwood Park, NB



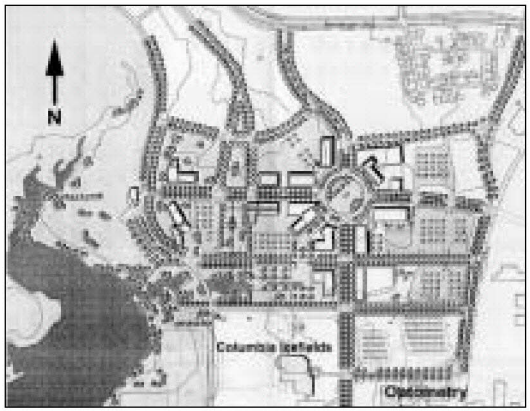
Victoria Park, PEI

Don Poole

Don Poole is a planning and development officer at the city of Charlottetown, PEI. Don's presentation opened with an explanation of how the city of Charlottetown is laid out. The downtown core has four squares with a central square in the middle. The city is currently undertaking many "greening" projects throughout the city. These initiatives include planting trees, shrubs, and a variety of flowers. One project the city is quite proud of is the brownfield reclamation study undertaken on the East Royalty landfill site. The city is also active in a "rails to trails" program that aims to convert abandoned rail lines into usable paths for pedestrians and cyclists. Finally, Don talked about the city's " Communities in Bloom project. Recently the city won the top award in this yearly competition.

Melanie Hare

Melanie Hare is an Associate with Urban Strategies, a planning and urban design firm based in Toronto, ON. Melanie has been involved in numerous projects in cities across Canada and the United States. In Sarasota County Florida, the firm was hired to develop a regional plan. The regional plan involved using a set of natural based systems to develop the plan. Urban Strategies has also been involved in the Toronto Waterfront Plan. Toronto's waterfront spans 26 km and 70% is publicly owned. Many of the properties are contaminated and need to be cleaned. Other areas along the waterfront include beaches, and private developments. Another project the firm has worked on is the development of the University of Waterloo's technology park located on the school's north campus. The city of Waterloo has an "environment first" policy and also has a strong smart growth planning strategy based on its subwatershed.

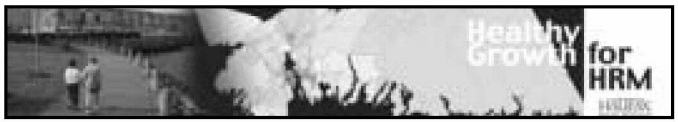


WatPark, University of Waterloo

John Charles

John Charles is currently working with the Parks and Open Spaces Division of HRM Parks and Recreation. Since 1999, John has been working toward the development of an Open Space Plan for the recently amalgamated Halifax Regional Municipality. With the amalgamation of 19 former municipalities, HRM is now responsible for 634 park properties. The Parks and Open Spaces Division is also responsible for reading and analyzing 19 former municipal open space strategies in order to develop one concept for the entire region. The region is developing its new open space plan using principles found in landscape ecology. The guiding vision is to have a sustainable, integrated resource management plan that takes into consideration both current and future needs.

Charlene Cressman



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Workshop 3: The Tyranny of Standards - An Obstacle to Green Development?

Presenters:
Peter Klynstra, Landscape Architect;
Cary Vollick, Landscape Architect;
Doug Conrad, Landscape Nova Scotia
Moderator: Jill Grant

Standards have insidiously invaded our lives. They have become institutionalised. They have become a substitute for thinking. How do standards affect the greening of the urban and regional landscape?

Peter Klynstra

Peter Klynstra started this invigorating talk by pointing out how pervasive standards are in our daily lives, yet how more often than not, the so-called standard applies to a small part of the population. The session continued with Klynstra asking the audience if anyone found the 'standard' plastic seats in the auditorium comfortable - no one did, demonstrating one downfall of such standards.

Part of the problem with standards lies in who develops them. In philosophical and psychological terms, these people are 'pragmatic reductionists', those who have the misguided belief that everything can be explained in simple terms.

Standards have not always existed. It was only in the last five years that the Province of Nova Scotia developed the standard Coupling Act, ensuring that fire hydrants and hoses meet the same size standard so that they may fit together. It seems intuitive that this compatibility would occur, although the development of standards was necessary to ensure conformity from place to place. This example illustrates that standards are not always a " bad thing."

Mr. Klynstra showed slides to illustrate examples of standards and their relationship with greening:

- Naming streets after trees (ie: Oak, Beech) represents a 'greener' attitude.

- A policy standard of power being an above-ground utility has not been challenged; instead, trees are trimmed to conform to power lines and safety standards.

- Standards for asphalt can create an environment which is difficult to naturalize.

- The mentality that certain elements, required by standard, should be implemented, whether they make sense or not.

- Streets: Municipal standards often have no relevance to the actual context. While wider streets may provide greening opportunities (e.g. medians), narrower streets serve to slow traffic. Why not have twelve foot wide unpaved streets? This standard is acceptable for snowplows, fire trucks, and ambulances, which have long been reinforcing agents for the standard street width. Many streets in HRM do not meet the standard. Many streets are much narrower, and these places have the highest home sale prices!

Places like the Battery in St. John's, Newfoundland could not have been built by any municipal development standards, and prove to be popular places to live.

The Sophoclean notion that you can package information you could know, present, and understand, helped to create standards; Socrates, on the other hand, believed he knew nothing, and would thus

Standards can be impediments to greening the urban and regional landscape. Part of this problem lies in the perception of 'greening'; is it biodiversity preservation, maintaining vegetation, groundwater protection, or a certain attitude towards development? Some of the problems with standards are as follows:

- The minimum becomes the maximum.
- The maximum becomes the minimum.
- Standards can be the the only thing applied to the problem.
- The ISO problem - standards serve to institute and perpetuate a bad decision.

engage in dialogue to solve problems. It is this approach that we must take in order to model our designs to real life criteria, not necessarily only to pre-packaged standards. Another problem is implementing standards without questioning them.

Cary Vollick

Cary Vollick turned our attention to Bayer's Lake, the "standard whipping boy of what is wrong with suburban development", to show local examples of some of the principles presented by Mr. Klynstra. What began as a low-speed, light industrial park, rapidly became today's Big Box retail park; vehicular traffic skyrocketed from about 5000 cars a day, to that many vehicles in an hour!

Only one of these sites is landscaped to the road, the Price Club. Street trees are found along the entrance driveway, and the store's loading zones are buffered. The remaining Big Box retail establishments in the business park have conformed to the same standards.

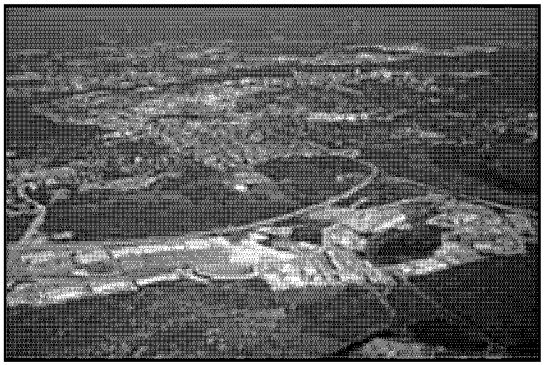

Figure 1. An overview of Bayer's Lake Business Park (http://www.businessparks.com/parks/bayerslk.html).

Standards for required parking spaces, for example, are determined by the square footage of the building, rather than the expected number of customers frequenting a particular location. With a standard of four parking spaces per thousand square feet, Sears and Walmart have comparably sized parking areas. Walmart receives a constant flow of customers, while Sears is a furniture outlet with significantly less traffic. Without considering alternatives, or having inherent flexibility in the standards themselves, a lot of land is paved over.

Applying a uniform approach to Big Box is necessary for equitable treatment, yet it created unintended results. Businesses attempting to conform to standard requirements often end up fighting the terrain, rather than working with it. Achieving the maximum number of parking spaces, irrespective of the terrain, not only incurs an immense cost, but appropriates capital from the landscaping budget. And according to Halifax bylaws, 'landscaping' is defined as a change of materials from hard surfaces. This means that beach stone, which is prevalent in Bayer's Lake, qualifies as landscaping.

Vollick presented encouraging alternatives to these standard examples. The Blue Cross building in Dartmouth does not meet industrial park standards, but it is a much greener example of development. While they did not spend the required 2% of the cost of construction on landscaping, the developer decided to work with the terrain and maintain 95% of the existing vegetation. A fire lane was threaded through a stand of old pine trees that were to be preserved. Innovative examples may not meet 'standards' but often create more liveable and green environments.

In order to prevent the replication of sterile places like Bayer's Lake, standards must be engaged in a thoughtful and critical way. The impetus must be put on the developer to meet or exceed standards, and to work with the terrain in achieving these objectives.

Doug Conrad

Doug Conrad enlightened the audience as to why standards do not always work, and how bad work can take place, even though standards are implemented. The process in determining standards is derived from past practicalities, and may not seem relevant today. For example, the size of fuel tanks on the space shuttle is related to the width of two horses' rear ends. The width of chariot wheels gave us road standards; railroads determined tunnel widths, which then dictated the maximum size of fuel tanks. This was not something that NASA experts calculated.

Bad work can be attributed in some circumstances to the project bidding process involved in development. A landscape architect will draft specifications, which are passed on to the builder. These go out to tender, and the contractor selects the lowest bidder - often the least qualified company - who looks to cut corners to make money. A general contractor and the general public often do not see value in the landscape. There is a great need to educate the public, especially homeowners. Education can help to ensure that landscaping and preserving existing vegetation is automatic, rather than an afterthought.

Standards can only be as effective as they are implemented and enforced. Standards are enduring, responding to cultural values, and are difficult to change. As planners, we must challenge and adjust the standards to be more reasonable, and not simply apply them blindly. Standards are often based on elements that are no longer relevant in the present context. In assuming that we do not know all the answers, we should strive to design to criteria (terrain, neighbours, etc.) rather than just trying to satisfy minimum or maximum standards.

Heather Ternoway

PLANTING THE TOWN GREEN
Design Workshop and Public Forum

Led by Dalhousie School of Planning Students and Susan Guppy

On the Thursday evening of the Breaking Ground Conference, the planning students organized a public forum in the Exhibition Room at the university. The evening was well attended by students, faculty, planners and members of the public.

The objective of the evening was to look at various green spaces within the Halifax peninsula and find ways to link them together by trails, parks or pedestrian pathways. It is vital that people can access green spaces easily within walking distance of their homes. Linkages promote connections between areas and residents of the city so that green spaces do not exist in isolation. Connecting these spaces with trails or greenways means better access for pedestrians and cyclists (without having to battle automobile traffic).

Participants were divided into four sections, each looking at two parks and the potential green corridors to link them. The four areas that were chosen for consideration were:

1. Halifax Commons and Point Pleasant Park

2. Willow Spur Line and Seaview Park

3. Connections between Halifax Peninsula and Halifax Mainland

4. Cogswell Interchange and Halifax Waterfront

The evening started with a talk from Peter Bigelow who is a Parklands Planner with HRM. Peter spoke about the potential for more green spaces in HRM and the current projects that planners are working on.

Participants at the Thursday night charette

Next everyone broke into the four groups to talk about the potential for linkages. Peter was on hand to help out the groups as were John Charles (Open Space Planner with HRM), Wayne Groszko (Pedestrian and Bike Coordinator with HRM), and Jan Skora (Park Planner with HRM), and Jim Donovan (Planner with HRM).

After the groups brainstormed their ideas, they presented them to everyone. There seemed to be a lot of potential for linkages and a lot of enthusiasm about the idea of making these kinds of connections. Some of the ideas were:

IDEAS:

- tearing down the Cogswell Interchange (a much talked about and publicized project already);

- turning Lady Hammond Road into a boulevard to meet up with Agricola Street (which is already a boulevard), and

- and creating a waterfront walkway to stretch the length of the peninsula and along the Bedford basin.

At the end of the evening the ideas and sketches were taken back to HRM for potential use in future projects. It was a great way to bring these ideas together and have something on paper that could then be shown to others working on these or similar projects in the region. Whether any of these ideas will come to be is not known, but the evening allowed for interesting discussion and provided a forum for exploring the possibilities.

Thank you to all who attended and a special thank you to Maria Jacobs for producing all of the base maps that were used in the workshop.

Lucy Trull

Mapping by Jason Alan Rokosh, Nova Scotia College of Art and Design

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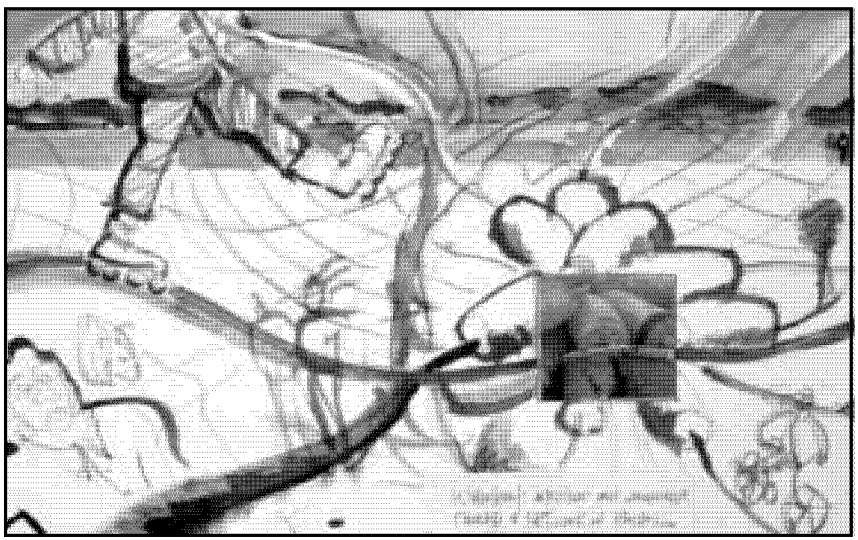
GREENING AT THE COMMUNITY & NEIGHBOURHOOD SCALE



Workshop 5: From Lean and Mean to Green and Clean; Transforming Brownfield Sites

Presenters:
Dr. Stephen M. Armstrong
Colin Morrell (Armstrong Morrell Incorporated); Dr. Ann McAfee, City of Vancouver; Moderator: David Stonehouse

Polluted "brownfield sites", found in virtually every Canadian city, present a major challenge in terms of clean-up cost, environmental pollution, and public awareness. In Part I of the workshop Dr. Stephen M. Armstrong and Colin Morrell outlined the remediation capabilities of Armstrong Morrell Incorporated. In a laboratory presentation, the speakers described KMS, one of the technologies used to address these current environmental problems.

The Kuryluk Mineral Separator (KMS) Concentrators Heavy Metal Recovery System is a new and innovative technology, invented and developed in Atlantic Canada. It was originally developed for the purpose of separating gold from precious metal ores. The KMS Concentrator has since been adapted to recover heavy metals (i.e., mercury, lead, copper and zinc), heavy alloys (i.e., brass), and precious metals (i.e., gold and silver), from various material matrices - primarily soils and mineral ores. The technology works in conjunction with standard screening equipment. KMS has the capability to process up to 15 tons of soil per hour, and can work for 24 hours a day. The technology, which uses only water, is effective in recovering metals in the metallic form or heavy compound. The metals can later be recycled thus adding value to the remediation project.

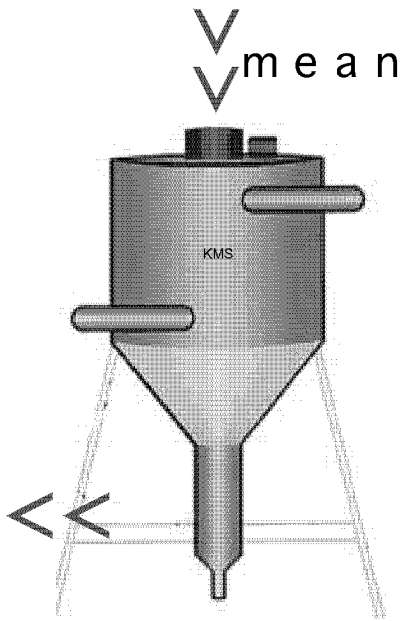
Mr. Morrell emphasized the many cost advantages of the technology due to the the fact that it is a simple method, and can be used on-site. Unlike traditional methods of remediation, contaminated soil does not have to be transported to far-away facilities, but rather can be "removed, recovered and reused" on-site.

Mr. Armstrong explained how the KMS technology can be amended to address organic contamination by combining the current system with bioremediation. Inorganics and organics can be treated at the same time. The combined technologies have the potential to replace traditional chemical remediation processes within the oil industry. With this combination approach, contaminated sites could be cleaned first of heavy metals and then of a possible oil contamination. Mr. Armstrong and Mr. Morrell proceeded to demonstrate the removal of mercury with a KMS Concentrator through a mobile laboratory presentation. The process has been described by Phase Technologies as follows (see simplified diagram below):

"The heavy metal /compound bearing material is fed to a hopper (H) through a material feed pipe (FP) tangentially entering the hopper. A fluid is fed to the hopper through two types of fluid feed port: an upper feed port (FF) and a velocity feed port (VF) positioned below. The fluid, fed through fluid feed ports (FF), acts as a suspension medium allowing the material to separate according to the weight and specific gravity of the particles. The fluid, fed through feed ports (VF), is directed vertically upwards through the base of the unit and acts as barrier to lighter materials while simultaneously allowing heavier particles to migrate to the base of the unit for accumulation in the collection chamber (CC). As material is fed to the hopper, the lighter materials are displaced upward and exit the hopper via the tailings pipe (TP)."

Following the demonstration, the audience raised a number of questions regarding the use of the technology. Points of interest included the limitations of KMS as well as the existence of any government regulations regarding contaminated soil.

In conclusion, Mr. Morrell expressed his regrets about the fact that this innovative technology has rarely been used in Canada, although it has found popularity in overseas sites. A recent example has been the use of KMS in Copenhagen, Denmark. Reasons for the lack of usage in Canada include the fact that Canada's regulations do not encourage the clean-up of metal contaminated sites. He suggested that this void may, in part, be due to the fact that unlike in some European countries there is no shortage of space in Canada and therefore there is neither the land use pressure nor the public awareness to restore contaminated lands to their former state in this country.



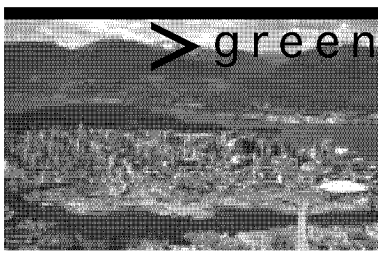
Dr. Ann McAfee, Director of City Plans Vancouver

In her part of the workshop session, Dr. Ann McAfee shared Vancouver's experience in redeveloping old industrial sites. In particular, she focused on the city's efforts to turn the downtown False Creek Basin area brownfield into an attractive residential neighbourhood.

For more than a century, the land surrounding False Creek had been used for commercial and industrial purposes. At the turn of the last century, False Creek was lined with sawmills and lumberyards. Later on, steel mills, warehouses, an incinerator and many other industrial facilities were established in the area. Construction industries were increasingly taking up large portions of the waterfront.

In the 1960s industry began to leave False Creek. The industrial sites became abandoned eyesores in the heart of Vancouver. In 1970, the city council made a landmark decision to rezone much of False Creek for housing and parks. Dr. McAfee outlined the various steps taken (as well as hurdles encountered) by the city in its ambitious effort to regain this prime downtown location for Vancouver citizens. Two slides presented at the beginning of her discussion compare the state of decay in False Creek in the mid 1960s to its current residential vitality, underscoring the success of far-sighted city politics.

In preparation for this project, the government gathered landowners together for a land swap, whereby ownership was shifted in order to create parcels of land large enough for development. At the beginning of the development project, there was a great deal of reservation and resistance. However, once investors were convinced about the projected success of the project, a race began between private and public investors for initial development projects. False Creek Policy Broadsheets were approved by City Council. This document sets out, for planning purposes, such issues and policies relating to shoreline, waterfront walkway, land use, density, parks and public open space, urban design, soil conditions. This led to an official development plan followed by area zoning and building approvals. Guiding principles for development in this area included consideration of water use, housing, open space, community services, and traffic circulation. Traffic circulation was designed to minimize car use, separate modes of transportation, and only allow for minimal parking. Subsequent to the creation of these guidelines, developers came up with proposals to implement these principles.



www.ffwd.cx/images/vancouver.jpg

Some of the old on-site buildings were designated as heritage buildings. To preserve the integrity of such buildings, the city retained approval rights prior to allowing development of and around the heritage sites. This placed further limitations on permit approval. As a result, old industrial buildings are now put to creative use, housing art galleries, retail stores, restaurants, a community center, offices and residential developments.

As a logical result of the site's prime waterfront location, access to waterfront was a major priority. The City had a long held Council policy expressing an intention to acquire City ownership of the shoreline for public access. A trail system for pedestrians and bicycles was endorsed by the city in 1972-74 around False Creek. The subsequent Broadsheets noted above, mandated a public waterfront walkway, to separate pedestrian and bicyclist.

One of the primary objectives of the Council was to create more residential space downtown. There was an explicit objective of providing for mixed-income housing to integrate various age and socio-economic backgrounds as well as different styles of housing. Considerations were made for market-rent housing, seniors residence, and social housing. Half of this housing is low-income. A later discovery of the city was that people would also be willing to live in this area in higher densities and therefore high-rise buildings are also found.

In order to implement these broad-based ideas, strong measures were necessary in order to bring plans to fruition. Public ownership of key land tracts, such as the waterfront, was necessary. Instead of selling off certain pieces of land, the city retains ownership but leases it out, thus maintaining its ability to exercise control over its use.

Today the development of False Creek is a success story. Approximately 100,000 people live within walking distance of their places of employment, in an attractive and dynamic neighbourhood. The downtown car use has dropped significantly. The neighbourhood unites residential and recreational use, providing wide amenity spaces downtown. Dr. Ann McAfee made it clear that the most important element in the success of this project was a council that included open-minded and progressive far-sighted individuals who, despite many reservations, managed to bring these concepts to implementation. Dr. Ann McAfee closed her presentation with the humorous yet apt observation that while current planners take credit for innovative developments in False Creek area, it must be noted that they are simply riding on the tails of work that was initiated 30 years ago.

Steffen Käubler

Workshop 6: Urban Agriculture - Local Food Production and Distribution

Presenters:
Marjorie Willison, Urban Farm Museum; Geordie Ochterloney, Home Grown Organics; David McCall, NorthEnd Community Garden Association
Moderator: Susan Guppy

For this workshop, each member of the panel gave a brief presentation on urban agriculture and their role in the community in trying to promote it. The floor was then opened to questions and culminated in a brainstorming session of all participants addressing the following question: What can we do to make urban agriculture a reality?

Moderator Susan Guppy gets the discusson started

Marjorie tells the group about the importance of urban agriculture.

Marjorie Willison started off the panel discussion with a summary of the current state of international food production. Her message was that given current production levels and the adherence to conventional agricultural techniques, we simply will not have enough food to feed the world's growing population. The current farming practices that dictate North American food production are inefficient and costly. For every 16 calories used in traditional farming, only one is produced, resulting in a deficit of -15 calories.

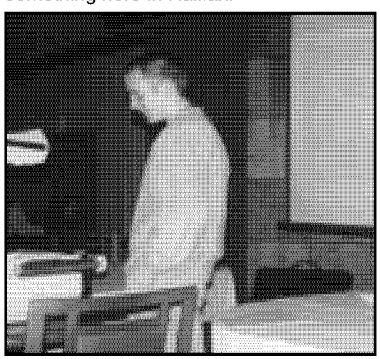
Current farming practices also have detrimental effects on the environment: 58% of worldwide petroleum consumption is used for the growth, process and transport of food. Much of this is unnecessary. Food can be grown easily, efficiently and most important, locally.

Marjorie then spoke of the possibilities of urban agriculture, of community gardens and rooftop vegetable patches. There are countless areas to plant and grow food such as vacant lots, parking lots or backyards. Fruit and nut trees can be grown instead of ornamental trees. Local food production reduces the need for transportation costs and fuel; it reduces dependence on other areas for food and also puts people in touch with their food and where it comes from. Community gardens also aid in the camaraderie and cooperation amongst neighbours, the contact with nature and the outdoors, and and the general aesthetics of a community. Vacant lots become green spaces filled with what Marjorie terms " edible landscaping."

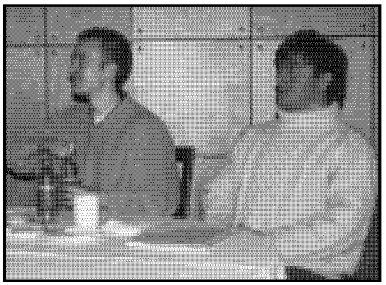
What are some of the obstacles to starting a community garden? Marjorie outlined a number of them:

Lack of municipal government support
Availability of gardening consultants and resource contacts
Availability of good quality soil and land
Neighbourhood acceptance
Vandalism
Access for all
Access to water
Zoning

Geordie Ochterloney told us the story of how he came to be the owner of *Home Grown Organics*. *Home Grown Organics* is a local company committed to providing affordable, organic produce for Haligonians. Geordie's journey started with simply planting seeds in his apartment. He later traveled and began learning about agriculture. He had been thinking about looking for a job overseas but later realized that he wanted to bring home what he had learned and do something here in Halifax.

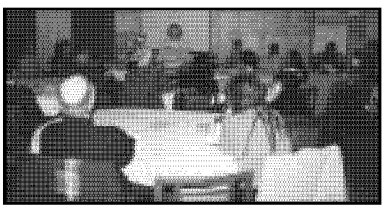


David shows the group maps of the locations of the community gardens.



David and Geordie answer questions from the audience.

Home Grown Organics has grown to serve over 550 members and continues to grow. The business consists of a general store in the north end of Halifax and weekly home deliveries of organic food boxes. They also provide ecologically-friendly cleaning supplies, organic bread, eggs and starting this spring they will be selling seedlings. Their mandate is not based on maximizing profits but in providing support, resources and information for people to be able to grow food for themselves.



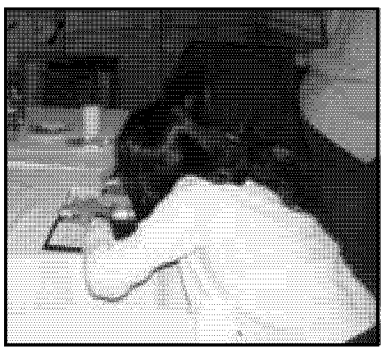
The participants gather around Marjorie. The group consisted of academics, students, and interested members of the public.

David McCall has been a member and project coordinator for the North End Community Garden Association (NECGA) since 1999. David was studying crop ecology and researching the effects of pesticides when he realized he was more interested in preventative measures. This led to his interest in promoting sustainable community gardens. The first garden was on Brunswick Street (where it remains) and later the NECGA planted a second garden near the water tower on the North End of Robie Street.

The successes have not been without obstacles however. The main challenges have been funding and land acquisition. At the Robie Street location there has also been a problem with water access. Because of safety laws about open water, the group found it difficult to provide enough water to the garden. They later rectified this by using water hoses connected to taps across the street from the garden.

David reiterated the importance of growing organic food. He warned against buying organic products from major companies such as the Superstore. These products may be organic but they are grown on massive corporate farms in places far from here and profit large companies such as General Mills. It is simply not necessary to depend upon these companies for our food. Locally produced organic produce is possible and logical!

Anyone can join NECGA for a $10 membership fee though no one is turned away if they are unable to pay. NECGA plans to plant two more gardens this spring.



One of the members of the audience signs up to be on the Food Council.

The presentations triggered a lot of enthusiasm from the listeners. After the question period Marjorie began writing down ideas for further action. This list was later presented to the rest of the participants of the conference. Some of the ideas on the list were:

Establish a food council to move food agenda forward

Join the ACORN Food Conference

Identify and protect/develop growing sites; i.e. parking lots, old farms, fruit trees and shrubs on city land

Protect and collect natural water resources

Make food growing a part of new developments and require new subdivisions to have room for community gardens

Marjorie reiterated that it takes a group of committed and enthusiastic individuals to make something happen, but that we can still do things for ourselves in our own gardens. At the end of the workshop a number of people signed up to be a part of a food council. The group has their first meeting on May 25, 2002 at the Captain William Spry Centre. Perhaps this group will be new advocates of urban agriculture in HRM and the energy of this day will not be lost.

Lucy Trull
All photos by author.

Workshop 7: Building Partnerships for Urban/ Suburban Greenspace

Presenters:
Nancy McMinn, City of Charlottetown
Neil Dawe, St. John's Grand Concourse Authority
Moderator: Deborah Grant

To initiate the session, Deborah Grant of the Downtown Halifax Business Commission acknowledged the difficulty in building a partnership between various levels of government, and between the government and the public. It is an area that all organizations struggle with, yet it is increasingly important as local governments are struggling to do more with less. The City of Charlottetown and the Grand Concourse Authority have been able to develop effective partnerships in creating open space projects.

Charlottetown, PEI

Nancy McMinn spoke of her parks planning experience in Charlottetown. One of her responsibilities is establishing Legacy Parks created through various partnerships. The main reason for these legacy parks is to make public parks places where people gather, rather than places that people avoid. Residents and volunteer groups are involved in all stages of park planning, including pre-development, design, implementation and management. Partners contribute in whatever form, including time, money or sweat equity.

Two examples of legacy parks in Charlottetown are described as follows:

Grafton St. East

The area was originally an abandoned coal yard. It is located at the end of the East Bridge, one of the main routes that enter into Charlottetown. For many years the people wanted to do something with the unsightly area. In the 1970s there was a proposal for development, but residents opposed it. Later, the rail lines abutting the property were abandoned ,and in the 1990s designated as part of Trans Canada Trail.

In 1999 the municipality decided to commission the area as a legacy park. The biggest response came with the group called the IODE Lake of Shining Waters. They were asked if they wanted to take ownership of this unused park. This group started by initiating discussions with the provincial governments for additional funding. With the volunteer efforts of the group, and funding from the provincial, municipal and federal governments, the park flourished. There have, however, been growing pains. Residents abutting the park felt overwhelmed by the efforts of volunteer groups. From this experience, the following lessons were drawn:

- There is a need to balance the efforts of the various groups involved.
-The impact of an election must be considered to ensure that commitments to the project is maintained.
- Plan for maintenance.

Maintenance has become a large expenditure. Because of the success of the efforts and the attraction of high-end facilities the park requires a fair amount of money to maintain. The volunteer groups are now working on a number of activities that will raise money for the maintenance of the Joseph A Ghiz Park.

Rochford Square

The other legacy project is the Rochford Square in historic downtown Charlottetown. The park was noted as being "tired", needing revitalization. The idea was to re-create a park based on a Victorian design concept. The neighbourhood took ownership of the park by initially adopting a flowerbed. The primary funding came from the Kiwanis group as they were looking for a millenium project, and this park has also flourished. The lessons learned from this legacy park are as follows:

-The need to communicate effectively. Because there are a number of groups and possibly differing agendas, the communication of the goals and processes have to be clearly communicated to all involved.
-Commitment. With the number of partners involved, there can be problems with keeping commitments to the agreed upon tasks. Because of this, a clear understanding of the tasks and expectations need to be confirmed on paper.

To overcome some of these challenges, Ms McMinn recommended the following:

-Have a design ready. It acts as a guideline and focuses the groups involved on a common and agreed goal. The design and goal allows the groups to pursue the project together.

-Maintain and foster a positive relationship between these groups. This can be done through meetings, activities, and open communication.

Currently the Legacy Parks Project has other ideas for partnerships, such as: a sports field for minor baseball, a skateboard park, an experimental farm and a Charlottetown streetscape plan. All of these projects require partnerships and the Parks and Recreation and Culture departments will learn from the lessons of these two initial projects. The overall goal is to allow partnerships to create legacies.

Ms. McMinn during her presentation

The second speaker was Mr. Neil Dawe. He is a Director of the Grand Concourse in St. John's Newfoundland. The Grand Concourse is a 100 km trail system around the city. It links important destinations and runs along bio-diverse streambed corridors. It uses the material from the area, and works with the natural topography. In order to legitimize this private-public partnership, a provincial act was passed in 1995. Next, a master plan was developed to guide future actions. An important legislation on access rights of the trail system enabled riparian zone protection. Since 1940, property owners can no longer own property within 15 meters of any watercourse or body. There are 3 major streams near St John's that provide habitat for a variety of wildlife and an excellent trail system enjoyed by all.

Mr Dawe shared recommendations with the workshop participants for pursuing this type of project, including:

- A vision has to be clearly articulated. it should identify what is unique about the area. This can help in attracting funding. The vision should also include guiding principles such as design with nature, taking clues from the local environment by using local material, community based involvement, incremental growth, and allowing culture and history to tell a story.

-A need to confirm community support. Ensure that representatives from each group attend the meetings. In this case, Trans Canada Trail was a significant contributor.

-Seek a champion and allow some flexibility by adjusting an application to meet their needs. Do not make the limitations on an application for partnerships too stringent. Find a way that the group can contribute and allow them to take some ownership. In the case of the Grand Concourse, the initial champion was Paul Johnson. He contributed the initial sum of money and was an enthusiastic promoter.

-Write a clear document that confirms a maintenance plan. The plan needs to prescribe a specific standard of maintenance. These standards are in turn directed by policy.

Define clearly the objectives and outcomes. Social objectives may include community health, an appreciation by local residents. Another objective can be the economic impact on the GDP and on tourism.

Have an ecological project that is based on bio-diversity and habitat. Encourage the careful use of the environment, for example, have a sinuous trail as opposed to a rigid and defined trail.

Further lessons that Mr. Dawe shared with us and that he felt contributed to the success of the development of the trail/ open space system are listed as follows:

Think big! Have trails that are 30 km long, 10 km and 1km.

Organize activities and programs that include the youth. The park becomes an educational tool.

Have inspirational aspects in the park that attracts people to use it.

Embrace training and technology. Try new software and technology. It attracts people and also assists is presenting the project in a progressive way. Mr Dawe showed a 3-D map that emphasized the streams corridors and gorges around St. Johns.

Work with the municipal planning strategies and land uses by-laws and ensure the trail system policies and operation are included when updates or reviews are made.

Define the planning boundaries on the map.

Develop a master plan. The Plan acts as a guideline and keeps everyone knowledgeable and informed as to the focus and potential of the project. Also make sure the plan is implementable.

-Build the project incrementally with many small steps. The steps become milestones and give a sense of achievement

-Do not chase partners, let the success of the small accomplishments attract them.

-Have pilot projects and build on their success. Have a product of success that you can use in order to attract other funders.

-Have membership, which attracts ownership and commitment.

-Set goals realistically and build from the small successes.

-Formalize commitment from the partners on paper.

-The project needs a full time, dedicated staff.

Conclusion

Successful implementation of open space systems is exemplified in these two areas of Atlantic Canada. Ms. McMinn and Mr. Dawe have been able to accomplish what many trail system projects struggle with. Similarities between the two speakers were evident with their willingness to try new ideas, and to learn from their past experiences. Both speakers also stressed the importance of a clear yet flexible plan that would guide volunteers. In listening to the two speakers, there was a feeling amongst the workshop participants that these two cities definitely warranted a visit sometime in the near future.

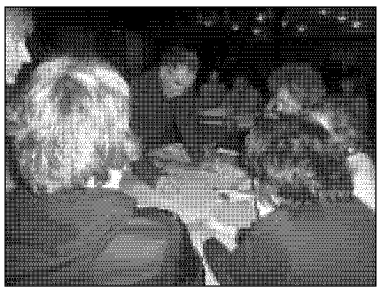
Maria Jacobs

Workshop 8: Your Schoolyard is Your Neighbourhood Greenspace

Presenters: Denise Philippe, Evergreen and Rhea Mahar, Tree Canada
Moderator: Doug Conrad

This workshop explored the role that natural or naturalized school grounds play in contributing to healthier urban landscapes and ecological functioning within the city.

In addition, this workshop had an interactive component. Two site plans were given to the participants, one for each group. One plan was for a city high school; the other for a rural elementary school. Each group was asked to draw and present a landscape plan for a Greening School Grounds program.



Workshop participants engage in developing schoolground greening plan

Denise and Rhea first introduced the organizations with which they work. Evergreen is a national not-for-profit organization. It has three program streams - Learning Grounds, Common Grounds program, and Home Grounds. Learning Grounds is the school-based program. It has worked with over 1000 schools across Canada. Common Grounds works with communities at large, and in public spaces beyond the school ground.

Programming is delivered through: restoration, resource development, grants, training, facilitation and building networks and advocacy.

Tree Canada Foundation is a national non-profit organization whose mission is to facilitate tree planting in both urban and rural communities. This is done through a number of programs including Green Streets Canada and Greening Canada's School Grounds.

What kind of schoolground movement are we talking about?

School ground greening is often a response to school grounds designed according to a "functionalist ethic" expressed in most of the schools that we see today. This means that ecological concerns are not addressed, social or educational needs of students are not met, and the school relates poorly to the larger surrounding community.

Responsive school ground greening projects can range from beautification projects (wanting school grounds to look better), to projects that include environmental enhancement and outdoor learning as goals. School ground naturalization is a particular form of greening, and is an alternative approach to landscaping that blends environmental concerns. The latter can address habitat loss and biodiversity decline by planting native plants.

The benefits of these projects in the eyes of the education community (i.e. teachers, parents, administrators) are that they offer:
- a living example of a growing ecosystem
- an opportunity to learn from direct experience
- shelter from UV rays
- a less hostile and more creative area for play
- a reduction in violence and vandalism through an increased sense of ownership
- a reduction in maintenance requirements and chemical use
- an excellent model for environmental rehabilitation, community stewardship and student citizenship
- an opportunity to meet school accreditation goals
- ways to involve ESL parents
- increased pride in the school

From an environmental or regional greening perspective, these projects help to address some of the following issues:
- the lack of accessible green space in the city;
- the need for more sustainably designed and maintained urban landscapes, an ecologically literate citizenry, and active community stewardship;
- a stronger sense of place;
- water quality improvements by providing permeable landscapes that slow run-off water and offer additional filtration;
- improved water quality through a reduction in chemical use in landscape management;
- improved air quality through tree plantings;
- climate change (by reducing the urban heat island effect- pavement is replaced with plantings, which means less reflective surfaces in our cities); and a reduction in energy consumption when trees are planted around buildings.
- urban biodiversity
- habitat loss and fragmentation. Some school ground projects re-create habitat spaces (riparian, meadow, forest, wetlands). Other projects provide increased connectivity between green corridors, consequently decreasing species isolation and fragmentation.

So why are schools committed to change?

There are many reasons for which schools pick up the challenge of creating an outdoor classroom and habitat area on their school grounds. For many, it is NOT to meet regional greening goals. And here is where an opportunity may lie. Regardless of the motive, transformation involves certain processes.

Parents, teachers, and students mobilize to involve large components of their community. Through organizations such as Evergreen, Tree Canada, etc., school communities are encouraged to: inventory their sites; develop a design; collaborate on implementing and stewarding the project, and ensure long term sustainability. The latter may be achieved through ongoing outdoor/experiential learning using the school ground as an educational resource.

Through this mobilization, school communities are not only creating green spaces that improve the ecological value of school grounds in urban areas, they are also educating children and youth alike on the potential of nature in the city.

Regional land managers can use this energy, these green spaces and corresponding projects to weave together a truly liveable, sustainable urban fabric in any municipality or region.

The challenges

The picture is not all rosy, however. There is lots of opportunity, but where are the challenges?

These projects are grassroots, and do not have the benefit of systemic support:
- No district or provincial-level policy in most of the country
- No funding, and decreasing budgets for ground maintenance and improvement.
- Overworked teachers- only the very keen and committed take on these projects. Often projects are inspired and propelled along by parents.
- Short term life cycles (of naturalized areas) due to teacher/parent turnover and competing interests within any one school.
- Lack of knowledge/training in maintenance departments on environmental and educational benefits of such landscapes, how to cost-effectively manage them, or how to involve the overall community in stewardship.
- Lack of knowledge/training amongst teachers on how best to use school grounds as educational resources.

What can we do?

The following are ideas for next steps.

- Develop policy with school boards. For example, environmental regulations in the state of Maryland require new school sites to develop environmental options. In response, Maryland's State Board of Education has developed an environmental education by-law that requires students to benefit from a multi-disciplinary environmental education, which is partly delivered through innovative school landscape programming.

- Co-management strategies. The City of Winnipeg is responsible for maintenance and upkeep of school grounds beyond the space immediately surrounding the buildings. Naturalists employed by the municipality to work on parkland naturalization also lend support to (and facilitate the development of) school ground naturalization projects.

- Options for sharing resources. Funds, expertise, maintenance resources including staff and machinery, can all be shared. Funding options expand when working with a larger network of people, and possibly expanding money sources to those outside the tax base.

- Ensure schools, their staff and community, as well as school boards are invited to regional visioning meetings. When organizing such events, ensure meaningful participation by schools is possible.

- Lay out your regional greening visions, goals, strategies in such a way that school grounds are quite clearly part of the map.

- Work with developers to include schools as part of the overall community design, and possibly use the green space to more effectively address water management issues. A great example is in British Columbia's East Clayton development, where two schools have been designed as the heart of the community, right down to the way that water flows as part of the development's green infrastructure. Also, Strathroy, Ontario developed a school site that is partly used for a storm-water management pond.

- Secure school grounds through land purchases, and use the school community as the stewarding agency.

- Co-deliver training for management staff on maintaining naturalized/restored landscapes.

- Co-design new schools with facility planners so that open spaces serve both ecological and cultural heritage functions. Much of this information is contained in policy guidelines developed by Evergreen.

Next, Rhea Dawn Mahar presented some exciting Nova Scotia initiatives.

Schoolground Projects in Nova Scotia

Nova Scotia has its share of barren school grounds. In 1994 a survey was done photographing and reporting on the state of twenty-seven Halifax City school boards.

The survey revealed a trend of city school grounds into one of three general categories or rings. It was clear that the outer ring includes schools that have natural areas on them. Closer to the city centre, schools generally have expanses of mowed grass areas. The inner ring schools are dominated by asphalt.

The benefits of natural areas are obvious, and natural history lessons are abundant in these habitats. For example, Fleming Tower elementary school in Halifax has both granite and slate rocks on the slope behind the building. The granite supports the growth of moss, while the acidic slate does not. The presence of this environment offers exciting opportunities for

lessons in both ecology and geology.

Another exciting example comes from Ecole Beaufort (currently under the threat of closure). This urban school began its greening program in the spring of 1995 by adopting a stewardship project for the large Elm trees growing on the perimeter of the school. Planters were also placed on top of the asphalt surface. Each class in the school since 1995 has been responsible for one-half of a planter. Each year they could plant whatever they wished.

A berm was also created by digging up asphalt, and bringing additional soil to plant native species. Students painted new benches that were installed beneath the large Elm trees, creating a wonderful "outdoor classroom" environment.

At LeMarchant St. Thomas school, planning to replace the large lawn that dominated the school yard got underway in autumn 1995. It was part of the Nova Scotia Model Schools project. In 1997/98 an outdoor classroom was installed along with a serpentine pathway and several gardens.

Robert Jamieson is a rural Eastern Shore school that has numerous gardens, outdoor classrooms, and schoolyard composting. Since they are located on the coast they utilize eelgrass as a mulch, and a carbon source for gardening activities and composting.

In the Antigonish Education Centre an entire lawnscape was turned into a network of paths lined with apple trees and habitat sites. Planning began in June of 2000, and the entire school and surrounding rural community of Heatherton was incorporated into the vision. It paid off. A planting was organized for the Antigonish Food Bank in the "Plant a Row, Grow a Row" program.

Harry R. Hamilton began restoring a pond habitat near their school on Earth Day, 1995 by pulling out an abandoned wrecked car from their property's wet area. The school has naturally taken ownership of the site, and did not take well to a proposal that would see a 1000-home subdivision upstream from the pond.

The school and the community got involved, and delayed construction while negotiations continue between the developer, the municipality, the school and the school board. The school wanted to see the downstream bog preserved as a park, as it has an important watershed function, and impacts the school pond. Unfortunately, the HRM Park and Open Space Department was not willing to change their "park circles model" to adopt the downstream bog as a park.

The school never let up their enrollment of the community. In May 2000 at a function called Nature Night, a panel of students quizzed a panel of adult experts with grilling environmental questions . These adults included politicians, the developer, a local environmental group, and Rhea Mahar. From that night, the development officer of the area was ordered to resolve the dispute of the land next to the school. In June, 2000 all the players were invited to the school site for a meeting, and an Environmental Impact Assessment was ordered, which was completed in January 2001. Finally, a Conservation Area was created in February 2002 based on the value of the pond as an educational resource. For more information please contact Rhea Dawn Mahar, PO Box 481, Halifax, NS B3J 2R7 at (902) 876-1309.

QUESTIONS

1. What to do with schools that close or are about to close? Response: Generally if a school is proposed for closing they do not receive funding to green their grounds, even if they survive a first review. History has shown that schools usually do end up closing within five years once they are stringently reviewed.

2. Vandalism: How do you deal with that? Response: Preventative planning and design, work with police for lines of vision for their patrols. Involve as many people as possible in the planning, surveying, and planting stages to create a sense of ownership of the project in the neighbourhood.

3. Funding sources? Response: There are many; with Evergreen and Tree Canada being two that are out there. In NS, the NS Teachers Union is now funding curriculum-based projects.

4. Technical and Logistical Support? Response: See Tree Canada website and Evergreen website, and call Rhea Dawn Mahar in Atlantic Canada.

Prepared from the notes of Denise Philippe and Rhea Mahar

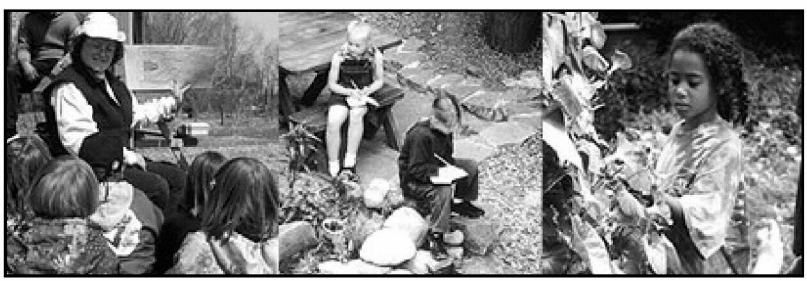


Photo source: www.evergreen.ca

Workshop 9: More Greenspace (technically speaking) - Solar Aquatics in your neighbourhood

Presenters and Moderators:
Delaine Clyne, School of Planning, and
Claudianne Ouellette-Plamondon,
Department of Biological Engineering,
Dalhousie University

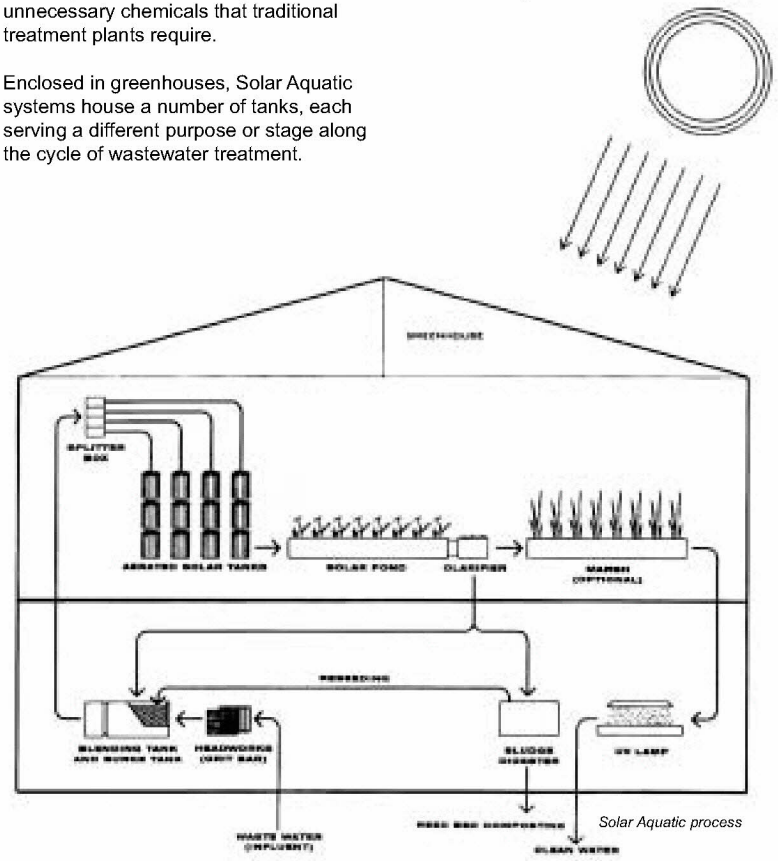
Solar Aquatic tank

The presentation began with a brief introduction to solar aquatic technology and a description of the research project that both Delaine and Claudianne participated in with other architecture students. The project involved researching both positive and negative effects of solar aquatic wastewater management systems and the plausibility of applying that technology to the Halifax Regional Municipality (HRM). The presentation concluded with an inspirational talk from Delaine about a small South American community (Gaviotas) that was developed and designed with unique and eco-sensitive technologies to help demonstrate that environmentally, economically, and socially sustainable developments are possible.

Solar Aquatics

Solar Aquatic systems are an effective way to address wastewater management by bringing together science, nature, and technology. This ecological wastewater treatment system uses bacteria, algae, plants, and aquatic animals to imitate the natural purification process of freshwater to break down solid and liquid wastes. Although all sewage treatment systems use bacteria to break down waste, Solar Aquatics use a higher level of biodiversity to treat a wider range of contaminants. This helps to avoid the usage of unnecessary chemicals that traditional treatment plants require.

Enclosed in greenhouses, Solar Aquatic systems house a number of tanks, each serving a different purpose or stage along the cycle of wastewater treatment.



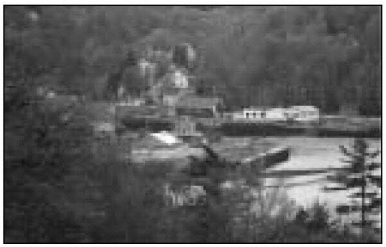
Solar Aquatic process

The treatment process occurs in six stages with retention time varying, depending upon the concentration of wastewater and the degree of purification required. In the first stage (known as the " Headworks"), raw sewage passes through a screen leaving behind coarse inorganic debris. The sewage then passes through an aerated grit chamber where inorganic sand and gravel settle out.

The next stage is known as " Blending." This process involves the breaking down of floatable organic solids and is the stage where biological treatment first begins.

Sewage from the Headworks enters the Blending tanks where it is mixed using fine bubble aeration. Airborne bacteria in the bubbles break down organic chemicals into carbon dioxide, nitrate, and water. The system also breaks down fats, proteins, and starches that are

metabolized by downstream organisms. Nitrification is the third stage of the process. In this stage, nitrogen and phosphorous are removed by plants growing at the surface of the solar tanks, Root systems from the plants further help to catch suspended solids while micro-organisms and small animals (like snails) feed on the solids. Remaining sludge is recycled back into the blending tanks for microbial reseeding and reprocessing, with the balance sent to reed beds for dewatering and composting (this is the fourth stage).



Bear River, home of solar aquatics facility.

Denitrification occurs as the fifth stage of the process in the form of a marsh. The clarified water is run over a stone substrata converting nitrite to nitrogen gas. Marsh plants remove pathogenic bacteria and absorb phosphorus.

The final stage is Disinfection. This stage uses ultraviolet lamps to disinfect the water and make it potable. After this stage, the water can be reintroduced to the community or safely discharged.

The fact that Solar Aquatics use greenhouses versus conventional large-scale, industrial looking structures is a significant benefit gained through the usage of Solar Aquatic systems. Treating sewage and wastewater in an attractive facility has spawned numerous benefits to the local community such as aquaculture, plant nurseries, and tourism.

A local example of such benefits is in Bear River, Nova Scotia. This small community of about seventy-five homes has received ecological praise from around the world for adopting Solar Aquatic technology as well as exemplifying ecological wastewater treatment in action. The greenhouse facilities are in stark contrast to large, odour producing conventional treatment facilities, which few residents would consider an asset in their community.

Solar Aquatic facility being used to grown various plant species

The student research group explored opportunities for using and applying this technology in 18 different locations located throughout HRM (mostly occurring along the waterfront of Peninsular Halifax). Cost-benefit analyses, along with geography, and socio-economic benefits to the local community, were used in determining location and feasibility of the Solar Aquatic facilities.

Existing government policy and unwilling municipal engineering staff were cited as two large barriers to further pursuit of solar aquatics technology in HRM - despite the fact that Nova Scotia is already home to two successful existing facilities in Bear Lake and Beaver Bank.

Another view of the Bear River Solar Aquatic facility

Source of images and information: Macy, C. Ed. 2001. Greening the City. Ecological Wastewater Treatment in Halifax. Halifax, NS: Faculty of Architecture Dalhousie University.

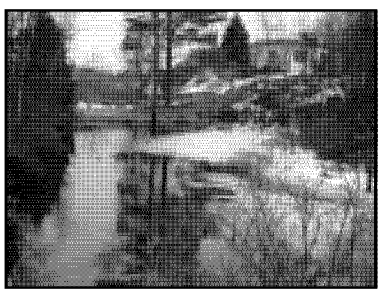
Jaret Lang

Workshop 10: Fostering a Sense of Wonder and The Value of Pocket Wilderness

Presenter: Patricia Manuel
Moderator: Elizabeth Crocker

The grand scope of environmentalism has focused almost exclusively at a global or national level. Efforts to protect our natural environment often occur at a large scale. A scale that is often incomprehensible to most. Often, we can't see the trees in spite of the forest.

Professor Patricia Manuel, in her session entitled "Pocket Wilderness: Experiencing Nature in the Neighbourhood Backyard", asked us to refocus our communal attention on wilderness from the grand scale of ecosystems and sensitive areas, to neighbourhood pockets of undeveloped nature. We overlook the small sections of wilderness in our neighbourhoods and devalue its collective importance. We must not only focus on protecting large wilderness, we must also remember small wilderness. In this case, we must focus on the trees that make up the forest.



Pocket wilderness in spring.

Small pocket wilderness, whether wetland or woodland, exists in many of our neighbourhoods. Our children play and frolic in these unofficial wilderness parks. These small pockets are often children's first (and sometimes only) exposure to wild nature. It is in these neighbourhood pockets that children first observe the change of seasons and its effect on the natural environment. The cycle of trees and leaves. The metamorphosis of caterpillar to butterfly. The transformation of spring peepers from jellied egg to tadpole to tiny frogs. It is in these wilderness pockets that a sense of wonder in the natural environment is fostered in the next generation.

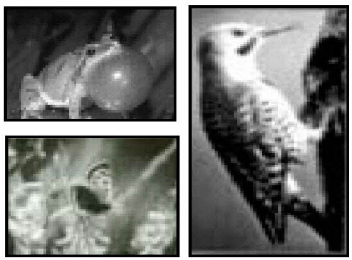
Pocket wilderness in summer.

Children need a connection with nature in their communities if we expect them, as future environmental stewards, to protect the wilderness they inherit. As such, there is an incalculable value in leaving some wilderness alone. There is sometimes value in doing nothing.

Little spaces exist too!! They are embedded in our neighbourhoods. Ponds are skated on. Woods are trekked through. Birds and wildlife are observed and enjoyed by all. These pockets are taken for granted by all the inhabitants of a neighbourhood as part of the communal fabric- taken for granted until they are gone.

The only way to have children appreciate nature is to have it in their backyards. Most grown children have a fond recollection of their neighbourhood wilderness. It was a place that was mysterious yet familiar. Communal yet secretive. Wild yet safe. It was a place we called home. It was a subconcious connection with the earth and the physical place of our spiritual development. It was the place where we learned that snakes eat frogs and green apples can hurt your tummy.

The provision of pocket wilderness is a fundamental matter of social equity. Wilderness should not be a luxury enjoyed by the privileged. It should be a right enjoyed by all. The urban environment needs not only to provide green space in the form of cultivated parks and gardens, but also wilderness areas left untouched for songbirds, insects, and vegetation.

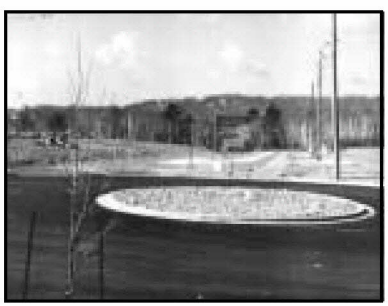


Pocket wilderness does not stand a chance against as of right development under the current legislative regime. This regime does register social equity concerns. Although a percentage of the development may be left as open space, it is usually the undesirable areas, or those difficult to develop.

Pocket wilderness in winter

Pocket wilderness responds to severe environmental change. The seasons affect pocket wilderness in varied ways. From budding leaves, to luscious greenery, to brilliant fall foliage, to elegant sentries of winter storms. The most severe environmental change is development.

Our regulatory framework does not often recognize the value of leaving small wilderness undeveloped. It has been designed on a larger scale for larger systems. The Nova Scotia Department of the Environment protects all wetlands over two hectares. But what of those neighbourhood wetlands that are smaller? Do they not deserve to be protected?



Pocket wilderness after development.

Pierre Heelis
All photos by Patricia Manuel, Dalhousie University

Community Succes Stories

Mineville Community Association

Grant MacDonald is President of the Mineville Community Association ("MCA"). For the past 2 years the MCA has performed a number of projects of benefit to the community. These projects are focussed on the environmental, health and recreational needs of the community. The MCA was awarded the Recreation Nova Scotia Mayflower Award for its community volunteer involvement, and the Halifax Regional Development Award for its excellence in cooperation in 2001. Grant presented the accomplishments of the MCA in the last 2 years, which included trail building and numerous other community activities.

John Meagher Garden

In the early 1990s, a small piece of property on the Northwest side of the Halifax Arm was donated to the City of Halifax. It was then known as Edmonds Grounds, a mature forest of pine trees on the lonely slope above the Arm. Unfortunately, valuable property is expensive to landscape and maintain, leaving the future of the land ambiguous. Enter John Meagher - retiree, gardener, rhododendron breeder, eccentric and goodwill ambassador. Mr. Meagher has not only provided a generous donation for the planting of a prized collection of rhododendrons, but he also maintained the space as well. Helen MacLean from HRM Horticultural Department, Parks and Open Spaces expanded on the events of this unique and continuous cooperative event.

Glace Bay Portable Parks System

Christine LeVatte, a Landscape Designer with the Highland Sod Farms in Sydney, Nova Scotia spoke about a concept of Portable Parks. In Glace Bay a concerned group of citizens recognized that the clean-up of downtown vacant lots was key to initiating the revitalization of a dying downtown core. Downtown businesses and the tourism sector recognized a desperate need to bring people back and provide an atmosphere to keep them there. Thus, the Portable Park concept, a GreenSpace solution, was born. Christine presented information about this simple concept, that addresses many needs and is particulalry useful in the context of small communities.

Coastal Water Trail

In Nova Scotia "greening" must be connected to the province's spectacular coastline. Dave Adler, Director of the Coastal Water Trail spoke about a new initiative which will result in the creation of a trail covering one of Nova Scotia's most spectacular coastlines from Halifax to Lunenburg. The coastline will bring together ecological protection with economic development opportunities centred on ecotourism and low impact use.

Coming to Our Senses: Urban Walk

On Thursday March 21st about a dozen of conference participants took the opportunity to take a walk in the Halifax urban area with naturalist Chris Brackley. The objective was to become more aware of the sensory and emotional difference between the green and grey environments. Although the walk took place shortly after a "spring" snow storm, participants could still appreciate the intristic appeal and value of open and natural spaces on the working industrial waterfront of Halifax Harbour.

David Adler speaks about the Coastal Water Trail

Closing Remarks
Frank Palermo

We have arrived at the end of nearly three days of deliberation on how to break ground in the greening of our landscape. We have heard a truly amazing array of ideas from citizens, public servants, academics and even one politician. We were very fortunate to host speakers from various parts of HRM, other Atlantic cities, Toronto, Vancouver and Brussels, and I would like to make some final observations. This is what I heard:

1. First, if we take a long-term view, the environment is a capital asset. Here in Halifax Point Pleasant Park is very important, in Toronto it may be the Don River Valley, in New York it is Central Park. What these places have in common is that because of someone's foresight, these green spaces are key to the quality of life, and they are good for business.

2. Secondly, there are places that take seriously the "environment first" idea. Places such as Waterloo, Ontario have recognized that the environment matters to what we do, and what we do matters to the environment. This recognition goes well beyond open space, and determines what form our communities take.

3. Thirdly, there is magic in working with diversity and complexity. We should be suspicious when someone tries to sell us an overly simple solution. Let's work towards a quilt of green.

4. Fourthly, the message that we heard over and over again was "work with what you have". This includes school grounds as new community forums; trees and planters in parking lots; marigolds on the main street; walkways and coastal trails. There is a great potential in local action, and there are many small but important things that can be done. They can be inspired by the qualities of the local environment.

5. We need to re-think and re-imagine change. This includes how we operate standards, how we treat our schools, our front yards, our backyards and street intersections.

6. Finally a participatory process is crucial for change to happen. We cannot leave the job of determining change to a few politicians, bureaucrats or planners. We need to be engaged, and own the process of change

So what are the next steps?

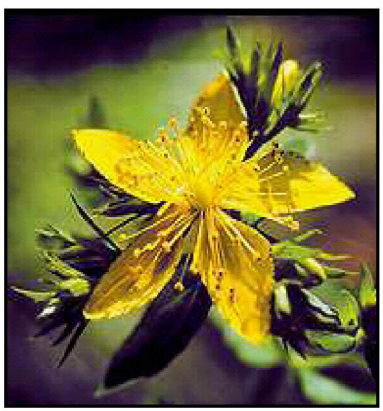
There is no question that a lot of energy and passion was generated here in the last couple of days. A new food council is in the works, as are other networks. This energy must be nourished and allowed to flourish.

We must be connected to plans. There are many different reports being prepared, and we should be involved. I think that we should also start an on-going discussion-reflection-action group consisting of those truly interested in the life of this city.

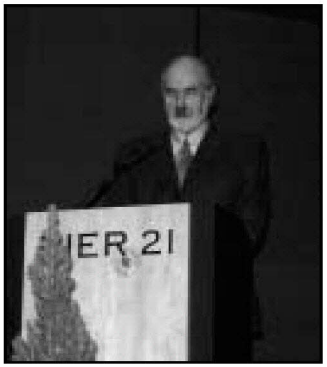
Pilot projects are one way to try out new ideas. There are many ideas; let's put them into practice! Solar aquatics, street improvement projects, protecting urban wetlands are just a few of the possibilities.

Finally, we must find a way to get the media and the politicians interested in these issues. There is a great need to develop a strategy to increase awareness and real discussion.

Change required persistance and imagination. Bold steps and broad strategies as well as small gestures and patient nurturing are required and must be interconnected. Greening is an attitude at all scales. It's an approach, it's not a choice.



BREAKING GROUND SNAPSHOTS



Keynote address by Lucien Kroll...

Reception...

Artists at work...

Design Charette...

Welcome address by Councillor Dawn Sloane...

Art contest...

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Contest Submissions

Art and Literary Contest Participants

Children
Dominik Drozdowski - Drawing
Zoe Fairbrother - Drawing and poem
Sophie Watts - Drawing

Youth
Mat Dunlop - Video and photograph

Adults
Jennifer Watts - Short story
Mary Porter - Photo collage
Joy Yourcenar - Photographs and poem
Michael Farrar - Photographs
Jamie Anfossi - Maquette and photographs

*Thanks to **Mountain Equipment Co-op, Home Grown Organics**, and **P'lovers** for generously donating gift certificates for all participants.*

The Myth of Weeds

You want to believe in
this pebbled pod inevitability
seedling cracks, milkweed corona
born to spin in the spring wind.
There is this need to split, to float,
to seek a predestined renaissance
beneath the inculpated ground.

You dream of cotyledons unfurling,
forcing roots through receptive soil
tracing the secret ways of worms,
forget about the random cruelty
of capricious breezes, ignoring
the equal possibility of ending
a barren white bit of floss
hard-contrasting black asphalt.

Joy Yourcenar

Colour and Song

Lupine seeds scattered
in an empty lot,
Blue Jay babies born in my backyard,
colour and song
in my North end neighbourhood.

Zoe Fairbrother

The Church Garden

There is a garden along the side of St. John's United Church on Willow St. in Halifax. It was created by the children who attend the church as part of their experience of learning about their faith. The garden is a story of people in the church wanting to connect their faith to the natural environment around our church, of offering children opportunities to experience the miracle of life, and of offering a place of beauty to our neighbours in our community who live near to or pass by the church.

When we first proposed the idea of creating a garden (just one or two small plots) to the church committee responsible for the property, we were given permission but advised that the garden wouldn't last long - it would be damaged and destroyed by people who pass by the church. The adults interested in developing the garden spoke about this possibility and decided we would go ahead anyway - this would be an act of faith and persistence. The experience of mending broken things (gardens and hearts) would provide valuable learning experiences for those involved in the project.

We are coming into our fourth planting season for the garden. It has included perennials, annuals, vegetables, herbs, tripod wooden structures covered with towering bean plants, and lots of weeds. For several Sundays in the spring and fall, children from the church school can be seen preparing the garden, planting seeds and bulbs, watering, weeding, harvesting and putting the garden to rest. We have harvested our seeds for planting in the spring season. And we have prayed in the garden recognizing and thanking God for the beauty of all creation and our role and responsibility in caring for our earth and neighbours.

There has sometimes been some damage done to the garden but most often it has been from cats and wind. The congregation has responded with great delight to a place that has been transformed from a patch of grass next to a brick wall to an eclectic garden full of many surprises and much pride on the part of the gardeners. We would often find transplants and slips of plants lying for us on the ground as people dropped them off on their way into church.

What does this have to do with planning and greening our communities? As a person of faith, I find it challenging to think of how I look at the urban landscape from a faith perspective. I have seen what the garden has meant to the people in my congregation and I have a sense of how this act of caring has been appreciated by our neighbours. The values that I carry in my heart, based on my faith, influence how I experience a sense of place. These include the importance of places of sanctuary, places of hospitality, places of engagement with the community (our neighbours), and places of invitation to pause, reflect and be renewed. The garden has been a small step in how our church has begun to live out these values.

Although it would take an enormous amount of work it is a small start in changing its image from a towering structure based on a triumphalist attitude of religious glorification to a more humble, welcoming place of community.

Within a ten minute walk from my house I can pass by a Muslim mosque, a Buddhist temple, an Anglican church, a Roman Catholic church, a Jehovah Witness meeting hall, a United Church, an Antiochian Christian Orthodox church, a Seventh Day Adventist church, a Lutheran church and a Faith Tabernacle.

Significant structures and gathering points within the community. It is interesting to think of what the landscape of the community could look like if we, as multi-faith neighbours, decided to environmentally create places of hospitality, sanctuary, and renewal on our properties based on our understanding of what these concepts (or others) mean from our own faith traditions. The possibility that such a physical intersection of wisdom, culture and faith could offer to the community as a whole is tantalizing.

Although our property at St. John's is limited in size we have discussed the possibility of creating an outdoor labyrinth - an ancient tool used for spiritual meditation. As I walk to church I try not to covet my Anglican neighbours huge yard and dream of what a community garden might look like on that spot. Putting to use the gifts that we have from our faith heritage can be significant offerings to the community as a whole and to our understanding of how to recognize and live with our natural environment in a holistic and community focused way.

Jennifer Watts