LEARNING OBJECTIVES

1. Learn about landscape architects working in remote areas addressing unique environmental and construction challenges;

2. Understand the challenges and successes of integrating green technologies and landscape infrastructure

3. Gain insight into solutions in the Arctic and remote areas with seed collecting and state of the art propagation as well as collaborating with landscape contractors

4. Examine strategies for addressing climate change and invasive species while working with natural processes

LEGISLATIVE ASSEMBLY BUILDING & CAPITAL SITE, YELLOWKNIFE, NORTHWEST TERRITORIES

Landscape Architect                  Cornelia Hahn Oberlander Landscape Architect
Project Name                         Legislative Assembly Building & Capital Site
Client                               Government of Northwest Territories
Location                             Yellowknife, Northwest Territories, Canada.
Area (size)                          11 acres
Design Period                        1992 - 1994
Construction Completion Date: 1994
Project Team, Architect: Matsuzaki Wright /Pin Matthews Architects, Jim Wright, Gino Pin
Landscape Architect: Cornelia Hahn Oberlander
Landscape Contractor: North by Northwest Ventures
Seed Collector: Bruce McTavish
The Northwest Territories Legislative Assembly Building was designed and built nearly 100 years after other capital buildings in Canada, in the harsh, remote land in Canada’s North. In response to the unique aspects of designing a new capital building, the site for the Legislative Assembly Building was carefully chosen to reflect the beauty of the landscape, emphasizing the architecture’s harmonious relationships to rock out-crops, the peat bog and the lakeside location. The landscape architect researched new techniques for the North where permafrost is a constant condition of the soil and where there are no nurseries to obtain plant material. Seed and plants were gathered from the site to be grown in Vancouver and then returned to the North when the building was complete. This plant material is genetically true to the North and therefore has flourished in the landscape of the Capital Site.

The concept for the building and its relationship to its surroundings was based on the approach of ‘least intervention’. A sensitive attitude toward the land is well described by Barry Lopez in his book *Arctic Dreams*:

“What does one do when visiting a new place?, he asked a man. His reply was simple. I listen that’s all. I listen to what the land is saying. I walk around in it and strain my senses in appreciation of it for a long time before I, myself, ever speak a word. Entered in this manner the land will open up.”

In order to maintain vital ecological processes, conserve biological diversity, and utilize ecosystems and populations of plants and animals at sustainable levels, key challenges of conservation and development were dealt with in a systematic and holistic way. Where the building, roads and parking lot were located, mats of peat were cut and rolled out to mend construction scars when the project was finished. The inherent beauty of the landscape was preserved and restored.

**INNOVATIVE LANDSCAPE ARCHITECTURE NORTH OF THE ARCTIC CIRCLE**

<table>
<thead>
<tr>
<th>Title:</th>
<th>East Three School</th>
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<tbody>
<tr>
<td>Landscape Architect</td>
<td>Cornelia Hahn Oberlander Landscape Architect</td>
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<tr>
<td>Project Name</td>
<td>East Three School</td>
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<tr>
<td>Client</td>
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<tr>
<td>Location</td>
<td>Inuvik, Northwest Territories, Canada.</td>
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<tr>
<td>Area (size)</td>
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<td>Design Period</td>
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<td>Construction Completion Date:</td>
<td>2013</td>
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<td>Project Team Architect: Pin Taylor Architects, Gino Pin, Simon Taylor</td>
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<tr>
<td>Landscape Architect: Cornelia Hahn Oberlander</td>
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<tr>
<td>Landscape Contractor: North by Northwest Ventures</td>
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<tr>
<td>Seed Collector/Propagation: NATS Nursery, Langley, BC</td>
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Plant What you See
Cornelia Hahn Oberlander and Virginia Burt
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Architect and Landscape Architect collaborated in building a community school in Inuvik, Northwest Territories from kindergarten to grade twelve. Inuvik is located two degrees above the Arctic Circle at the MacKenzie River delta, which has a special micro climate with a boreal forest. This area is deeply affected by climate change with degraded permafrost, decreased snow extent, changes in wind patterns, and increased river discharge with resulting ecosystems impact. Therefore the landscape architect had to address these changes.

Wind studies and snow drifting investigations were essential to the site planning of the school and its surroundings. Innovative ways were developed to bring native plants and trees to the school. A shelterbelt at the school was planted with native trees available from sites around the town, and root-pruned a year prior to transplanting in 2012. No nurseries are available in Inuvik and therefore seeds and cuttings from selected indigenous plants were collected and grown in a propagation facility in Vancouver, 4000 kilometers south of Inuvik.

After two years these plants, genetically true to the north, were returned to the site in containers and planted as groundcovers and shrubs the landscape plan amongst the trees. The school opened in September 2012 and the children are enjoying the new surroundings as well as learning about their native ecology, especially edible plants such as blueberries, cranberries and cloudberries. Thus the school features the true ecology of Inuvik, and integrates building and site into a harmonious whole.

LANDSCAPE ARCHITECTURE IN THE COASTAL BARRENS – ACADIA POINT

Title: Acadia Point, New Harbour  
Landscape Architect: Virginia Burt Designs  
Project Name: Acadia Point  
Client: George Hambrecht & Andrea Henderson Fahnestock  
Location: Blandford, Nova Scotia  
Area (size): 20 acres  
Design Period: 2010-date  
Construction Completion Date: Phase 1 Complete, Phase 2 in progress  

Project Team  
Landscape Architect: Virginia Burt Designs  
Site Plan: Diamond Schmidt Architects  
Landscape Contractor: Heritage Landscape Contractors
Located an hour south of Halifax on the Aspotogan Peninsula, this 20-acre headland was formerly home to Canada’s last whaling station—spectacular in its setting, gruesome in its purpose. Completely re-imagined and restored, Acadia Point is now the summer retreat of an urban couple.

**Design Vision**

In a highly collaborative effort, the landscape architect and client implemented a plan to heal the scars of the severely disturbed landscape, at the same time heightening awareness of the site’s exceptional diversity and beauty. To return the land to as natural a state as possible, work included:

- Dismantling the abandoned plant;
- Burying utilities to clear sightlines;
- Replacing woodland damaged during construction;
- Easing transitions between house and surrounding wood, water, bedrock, and pebble beach;
- Respecting dramatic 270° ocean vistas, keeping new elements uncontrived, low in height, and elegantly simple.

A contemporary effect is achieved through the use of restrained woodwork, concrete, and untreated raw finishes, uniting landscape and architecture. Features include:

- Utilizing onsite blast rock to form a breakwater;
- Board-finished concrete retaining walls, a sophisticated solution to protect deck and house;
- Narrow decks, designed to erase transition from inside to out while maintaining uncluttered coastal views.

**Environmental Rehabilitation**

Hired after site-planning and foundations were complete, the designer found machinery, blasting, and burning had profoundly damaged thin soils and fragile root systems. Restoration and conservation of vital ecological processes began immediately, including:

- Analysis of onsite conditions including salt/wind tolerance;
- Resolving impacted drainage and grading;
- Creative sourcing techniques to find un-sheared Christmas trees with shallow roots and second-grade conifers selected to harmonize with onsite trees;
- Use of groundcovers salvaged at a local quarry, scooped in vegetated mats, and placed to repair disturbed sections;
- Blurring boundaries by weaving new plants and groundcover into the existing landscape.

**Impact**

Plant What you See
Cornelia Hahn Oberlander and Virginia Burt
A prominent headland visible from neighboring harbour, road, and surrounding waters, Acadia Point once held a whaling station important to the community. Abandoned and derelict, the whaling plant had long been a blemish on the landscape.

Inventiveness and ingenuity was demanded when traditional planting and growing methodologies were explored and exhausted. The best compliment paid by visitors is the question, “where did the landscape architect do their work?”

Enhancing experience from land and sea—and healing a heinous past—this place now inspires a rediscovery of nature and confers a sense of place. Raw beauty restored.

**LANDSCAPE ARCHITECTURE IN THE COASTAL BARRENS – CHEBUCTO HEAD**

**Title:** Chebucto Head, Halifax, NS  
**Landscape Architect:** Virginia Burt Designs  
**Project Name:** Chebucto Head  
**Client:** Private Owner  
**Location:** Duncan’s Cove, Nova Scotia  
**Area (size):** 15 acres  
**Design Period:** 2014-date  
**Completion Date:** in progress  
**Project Team**  
Landscape Architect: Virginia Burt Designs  
Landscape Contractor: Heritage Landscape Contractors

Within a 30 minute drive from downtown Halifax, Chebucto Head forms the southeast headland at the mouth of Halifax harbour. This rocky outcrop became strategically valuable as a military promontory during World War II. A work in progress, this project is one of healing our relationship to the land and to one another.

At times desolate, and yet at others, enchanting, rehabilitation of the coastal barrens presents a challenge. The landscape architect reviewed existing conditions and researched sources of plants to identify those that can withstand barren conditions. The result: Use of plants that are salt tolerant, incredibly hardy and inured to sweeping ocean winds – to plant what one sees. Plants are being gently harvested from the site and carefully transplanted to their new home “around the corner”. Others are being collected, germinated far away and brought back to their native land – mature and ready for establishment the next year. The plants are genetically true to the coastal barrens and therefore have the greatest opportunity to survive and flourish.
CONCLUSION

In 1987 the Brundtland Report “Our Common Future” was published. This Report coined the word “sustainability” which now we call resiliency. It recognized that environmental problems were global in nature and urging the United Nations to establish policies for sustainable urban development. This report profoundly changed our profession to only building landscapes which address environmental and social responsibility.

The most recent Report of the Inter-Governmental Panel on Climate Change confirms that the warming of the climate system is unparalleled. The atmosphere and oceans have warmed and acidified, glaciers have receded. The amounts of snow and ice in the Arctic have diminished, and we suffer from unexpected floods (such as in North Vancouver last week), rising sea levels, tornadoes, forest fires and drought. The concentrations of greenhouse gases have increased. Human influence on the climate system is clear.

The scale of these environmental challenges demand that we alter our designs and attitudes towards the land. The planet is finite and land is a resource - not a commodity. It is clear that we must do something about climate change. The question is “how do we motivate people to understand how to address this phenomenon.” We encourage you to follow David Suzuki’s Blue Dot Tour, in which he supports a change in the Canadian Charter of Rights, to include the right to clean water, clean air, clean soil, and other environmental rights, known as Bill C-634.

Our dictum for a long time has been achieving a fit between the built form and the land. Limiting our footprint on each site is of utmost importance. Building with recycled materials and zero-carbon guidelines should be legislated by our municipalities for all building sites. We must act now. There is no time to lose. If we want to achieve these goals we must learn to collaborate with other professions and have enlightened policy-makers on our side.

In all our professions, we must practice what we call the three R’s on every project: Research, shouldering Responsibility, and Risk-taking. We need what we call "VIM" - namely Vision, Imagination, and Motivation in order to accomplish these goals in all our pursuits.

It is up to us to lead the way for healthy cities and healthy people.

Buckminster Fuller – the great architect and futurist - advised us with the following words: “You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.”
BIBLIOGRAPHY

REED, Chris and Nina-Marie Lister, Projective Ecologies, Harvard University, Graduate School of Design, 2015

LANDSCAPE ARCHITECTURE IN THE CANADIAN NORTH BOOKS AND PERIODICALS


ANDRE, Alestine, and Alan Fehr. Gwich’in Ethnobotany: Plants Used by the Gwich’in for Food, Medicine, Shelter and Tools. Gwich’in Social and Cultural Institute and Aurora Research Institute. Inuvik 2002

BLACK, Scott, Editor. Canada’s Western Arctic Including the Dempster Highway: The Definitive Guide to Canada’s Western Arctic. Western Architect Handbook Committee, Inuvik. 2002

BANDRINGA, Robert W. with Inuvialuit Elders, Inuvialuit Nautchiangit Relationship between People and Plants, Inuvialuit Cultural Resource Centre, Aurora Research Institute and Parks Canada, 2010

BRIGGS, Peter and Richard Wyma. Belonging: “The North is still a Frontier Where the Rules are being Written and Re-written…” Landscape/Paysages, Winter 2007


OBERLANDER, Cornelia Hahn, Invisible Mending, Sites magazine, Landscape Architectural Historians

SCOTT, Sarah. Queen of Green. Canadian Geographic, September/October 2007

LANDSCAPE ARCHITECTURE IN THE COASTAL BARRENS BOOKS AND PERIODICALS

CAMERON, Robert P. and Soren Bondrup-Nielsen. Plant Communities within Atlantic Coastal Heathlands in Nova Scotia


DUNWIDDIE, P.W. 1990. Rare plants in coastal heathlands: Observations of Corema conradii (Empetraceae) and Helianthemum dumosum (Cistaceae). Rhodora 92:22–26


LUNDHOLM, Jeremy, and Caitlin Porter, Coastal Barrens Research in Nova Scotia, St. Mary’s University, Halifax 2013


