



Photo: Walter Muma, ontariotrees.com

Alternate-leaved Dogwood *Cornus alternifolia*
Also known as the Pagoda Dogwood because of its overall shape, this deciduous shrub is a popular choice for the suburban backyard. It grows well in fertile, well-drained soil and requires good sun exposure. Flowers are yellowish-white, growing in a flat cluster. Berries are bluish and serve as food for birds and small mammals.



Photo: www.wikipedia.com

Common Lilac *Syringa vulgaris*
The lilac was introduced to North America in the eighteenth century and is a common deciduous shrub/small tree in suburban gardens and parks mainly due to its lovely, sweet fragrance. It flowers primarily in the spring with colours ranging from white to dark lilac. Lilacs grow best in alkaline soil and attract the larvae of several butterfly species.



Photo: Claire Ironside

Hydrangea *Hydrangea arborescens*
Commonly known as Smooth Hydrangea, this ornamental deciduous shrub is known for large, white flowerheads showing from May to July. It is best grown in medium moisture, well-drained soil in partial shade and needs to be pruned regularly to prevent overextension on upward growth. Teas made from hydrangea can have medicinal benefit despite being mildly toxic.



Photo: www.northernontarioflora.ca

Bush Honeysuckle *Diervilla lonicera*
A deciduous low shrub with 1 to 6 yellow flowers growing in short-stalked clusters and blooming in early summer. It is distinguished from other species of honeysuckles by the serrated leaf. Honeysuckle is versatile and can tolerate a range of soils and variations in sun/shade. It is best grown on dry, infertile soils in a cool climate.



Photo: www.rainscaping.org

Virginia Creeper *Parthenocissus quinquefolia*
A vigorous, ornamental climbing plant that attaches to smooth surfaces using forked tendrils tipped with adhesive pads. Flowers are small and greenish maturing in late summer/early fall into small, hard purple-black berries. These berries are poisonous to all mammals, including humans, but serve as a winter food source for birds. It produces lovely, deep red fall colour.



Photo: www.daytonnursery.com

Periwinkle *Vinca minor*
A common choice for dense groundcover that spreads and roots along the stems to produce generous coverage. Periwinkle has evergreen leaves with solitary purple flowers blooming in early spring to mid summer. It thrives on rich, evenly moist, well-drained soils in partial shade. It can become invasive if not pruned regularly and is effective at smothering weeds.



Photo: www.flicker.com

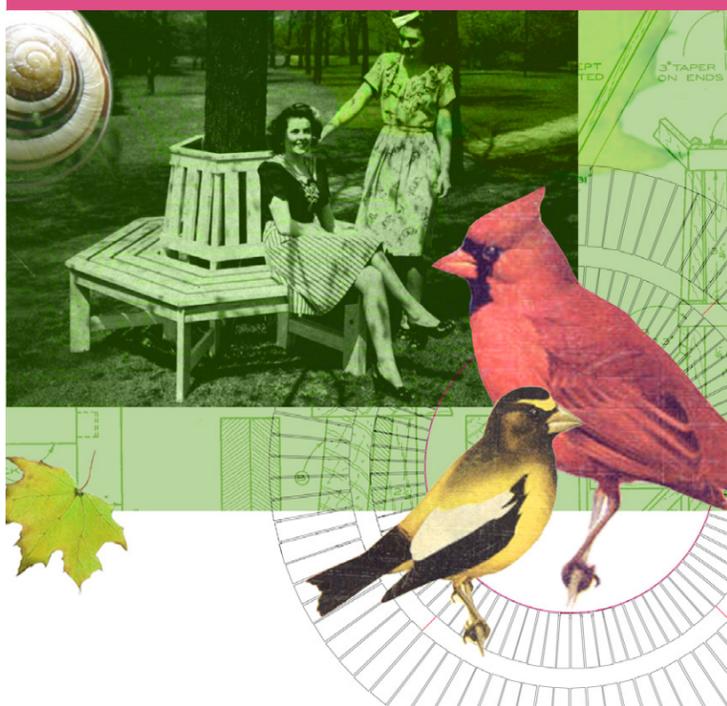
American Raspberry *Rubus strigosus*
A staple of the edible garden, Raspberry is a perennial plant native to North America flowering in late spring. The flowers can be a major source of nectar for honeybees and other pollinators. The fruit is red, sweet/tart, available in summer or early autumn. It grows well with lots of sun and water but can be invasive. Raspberry bushes can yield several hundred berries a year.



Photo: www.ppd.purdue.edu

Smoke Bush *Cotinus coggygria*
A unique specimen addition to any garden, the Smoke Bush produces dense groupings of hairs on the stalks of the flower clusters in mid-summer to fall. The hairs can go through several colour changes over the season. It grows best in full sun, favours well-drained soil and is very drought tolerant. Fall foliage ranges from red, orange and purple.

The Leona Drive Backyard Field Guide



PROJECT CREDITS

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Claire and Angela have been collaborating together for the past five years. Their art and design practice focuses on social, cultural and environmental phenomena and the use of information design for education and advocacy. Their work draws on their diverse professional and academic backgrounds in urban design, landscape architecture, architecture, product and communication design. They are the recipients of numerous grants, awards and commissions and have exhibited in Canada and the UK. www.moimoidesign.com

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Learn more about urban natural diversity through the following organizations:

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| Leaf www.leaf.ca | Trees Across Toronto www.toronto.ca/parks/tat/index.htm |
| Tree Canada www.treecanada.ca | Toronto Field Naturalists www.torontofieldnaturalists.org |
| Trees Ontario www.treesontario.ca | Ontario Field Ornithologists www.ofo.ca |

Tree Bench and Leaf Pile
Claire Ironside & Angela Iarocci in collaboration with Jeremy G. Cox

The suburban backyard, more than any other designed space with its mix of utility, recreation and nature, exemplifies the inherent contradictions within the suburban idyll — a space which exists in all ways between the polarities of city and country and of work and leisure. These dichotomies are clearly evident in the Leona Drive Project site and provide fertile ground for an inquiry into the emergence of the suburban ideal.

The six lots on the Leona site (9, 11, 15, 17, 19, 21) each possess a modest 1 1/2 post-war bungalow, a minimal front yard, side drive and generous backyard roughly occupying more than half of the site. All the yards are defined by hedge and border plantings, covered in grass, spotted with landscape interventions and slope to the east.

On closer inspection each possesses a subtle unique quality evinced through its particular built features and planted character which attest to the landscape values of the originating occupant as well as more generally to the cultural influences of the age.

For example, the selection and use of plant material in many of the backyards references the pastoral English garden. In contrast most of the built artifacts; covered patios, poured concrete slabs, pre-cast pavers, masonry seating walls, planters, and detailed wooden screens hint at a nascent modernist future. A bright shining future influenced and shaped in part by the can-do optimism supported by *Good Housekeeping*, *Better Living* and *Popular Mechanics*.

Within this mix of old and new, nature appears in several landscape forms; as the spiritually fortifying aesthetic tableaux, the cultivated nourishing ground, the recreational pleasurable getaway, and the managed wild wood.

Drawing on the spirit of the early modernist period generally and the suburban ideal more specifically, our project, "Tree Bench and Leaf Pile" seeks to signify moments where the wild and cultivated landscape interact to expose the cultural themes at work in the suburban landscape such as seasonal rhythms, cultivation, accommodation/attraction, comfort and benefit.

Tree Bench
A circular decorative wooden bench wrapped round a beautiful specimen crabapple tree at 21 Leona Drive conjures reflection and appreciation of nature afforded by the shade, aesthetic virtue and comfort provided by trees at the beginning and height of each growing season.

Leaf Pile
A picnic table, fire circle and tree bench all rolled into one, this installation focuses on the 'pile' as an ephemeral landscape feature which signifies the ending of the season, the onset of dormancy and the necessary utility of "maintaining" nature as a landscape ideal.

Project acknowledgements: Lucas Brancalion, Peter Fleming, Lindsay Stead, Christina Bubo, Carol Sellers, Toronto Field Naturalists, Tim and Jack Owen, Doris and Robert Ironside, Peter Rogers and Josephine Iarocci.



Silver Maple *Acer saccharinum*
A common deciduous tree throughout North America, the Silver Maple is highly adaptable to various conditions but requires more sunlight than other maples. The silvery undersides of the leaves produce a lovely shimmering effect in the breeze. It is often used in urban settings and growth is rapid and prolific.



Manitoba Maple *Acer negundo*
Native to North America, this tree is smaller than other maples with multiple trunks forming in thicket-like clusters. It grows fast and can fill in quickly around houses and hedges as well as vacant lots. It likes bright sunlight and several birds and some squirrels feed on the seeds. Despite being prone to over-propagation, it is one of the most common maples in cultivation.



Sugar Maple *Acer saccharum*
Known for producing a range of spectacular fall colour, this tree is native to the hardwood forests of northeastern North America. Sugar Maple is very shade tolerant and can grow in a wide range of soil types. It can be overly sensitive to pollution and urban conditions as compared to the Norway Maple. Sugar and Black Maples are the main source of sap for maple syrup.



Norway Maple *Acer platanoides*
Non-native to North America, this wide spread tree has become popular in urban settings thanks to its hardiness as compared to other tree species. It can tolerate poor soils and pollution and has a straight, tall trunk with a broad spread for shade. Autumn colour is predominantly yellow. It has shallow, grooved bark unlike other maples which tend to be more shaggy when mature.



American Elm *Ulmus americanus*
A deciduous tree common throughout North America, this Elm is widely used as a shade and street tree due to its vase-like form, generous canopy and tolerance to many environmental stress factors. Starting in the 1950s, many American Elm fell prey to the fungal infection, Dutch elm disease but with frequent treatment these trees have survived and continue to grace urban and suburban settings.



Sweet Crabapple *Malus coronaria*
A staple of the suburban backyard, this ornamental tree produces vibrant rose coloured blooms in May and June. It prefers rich moist soil with the small, waxy, deep red fruit ripening in October. As the fruit is an excellent source of pectin, it can be used to make a tart tasting jelly. The honeybee and mason bee are the most common apple tree pollinators.



Eastern White Cedar *Thuja occidentalis*
An evergreen, ornamental, coniferous tree with distribution throughout northeast North America. It is relatively small compared to other cedar species. They are the oldest trees in Canada with some recorded at over 1,000 years old. In residential and park settings they are used for screens and hedges. The wood is commonly used for fencing, shingles and lumber.



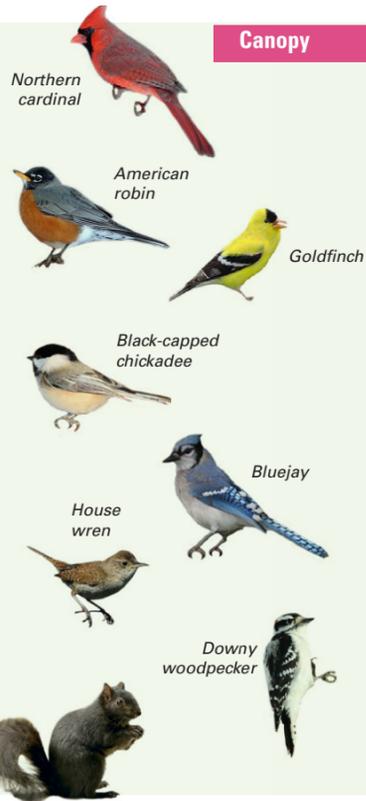
White Spruce *Picea pungens*
Native to North America, the White Spruce is an evergreen growing to medium-size. It is a popular garden plant with slender leaves and slow growth. The bark is thin and scaly and flakes off in small circular pieces. It is the northernmost tree species in North America. The wood is harvested in Canada for paper making and exported as lumber.

Other tree photos: www.wikipedia.com

Tree companions

A sampling of the variety of species of birds, mammals and insects that co-exist within the tree ecosystem.

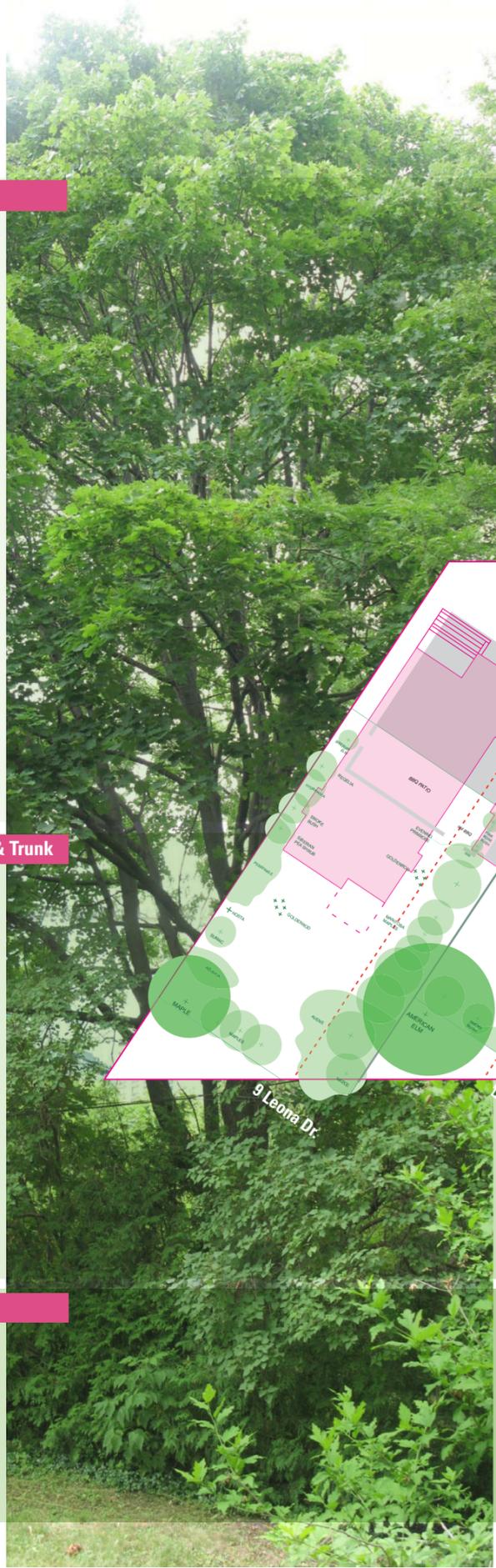
Canopy



Lower Canopy & Trunk



Ground & Roots



Carbon sequestration

Over an 80 year lifespan, an average Canadian tree can absorb 200 kg of carbon dioxide, plus quantities of ozone, nitrous oxide, particulate matter and sulphur dioxide. **Carbon sequestration** is the process by which trees remove CO₂ from the atmosphere during photosynthesis, store it in the trunk, branches, leaves, roots and soil and return oxygen back to the atmosphere as a by-product.

Every day a large tree provides enough oxygen for a family of four.

The amount of CO₂ a tree can offset depends on the species, specific growth conditions and density of the tree's wood. Leafy trees absorb more carbon than conifers/evergreens as do trees that grow in warmer climates. The rate of sequestration is greatest for the first 50 to 100 years of tree growth, gradually tapering off with age.



Leona Drive

Greenspace comparison



Other tree facts

You need about 500 full-sized trees to absorb the carbon dioxide produced by a typical car driven 20,000 km/year.

One large tree can lift up to 100 gallons of water out of the ground and discharge it into the air in one day.

Windbreak of trees can reduce residential heating costs 10-15% by minimizing energy needs.

- 6 Original houses
- Original flora
- 8 Proposed houses
- Large trees that may be removed

Photo credits: Ontario Field Ornologists, www.ofo.ca; www.wikipedia.com; Claire Ironside
Carbon sequestration sources: What Trees Can Do to Remove Atmospheric CO₂, Tree Canada; www.carbonfootprint.com; www.coloradotrees.org
Tree and shrub species sources: www.wikipedia.com; www.borealforest.org; ontariotrees.com; cfs.nrcan.gc.ca; www.northernontarioflora.ca