



TREES & TIME

Connecting to the ecological history of Cabbagetown

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Written in August 2024,
the year with the warmest winter since 1948, and
the most rainfall in a Toronto summer ever.

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1: INTRO

In less than 200 years, how did Cabbagetown go from this



Plan of Yorkville, Liet. Philpotts, 1818. Library and Archives Canada

to this?



Cabbagetown, Aerial Photograph, 1978. Jeff Allen, University of Toronto

From this



Castle Frank, west side of Don River, 1896. Toronto Public Library Archives

to this?



Carlton and Parliament Streets, May 7, 1949. Toronto Public Library Archives

What was the ecology of Cabbagetown like before settler urbanization and development?

If we look closely, what are the traces or remains of the vegetative past? What were the trees, shrubs, and mosses that softened the ground, filtered the water, fed the people, and sweetened the air?

What does this past mean for the future?



A tree trunk in Cabbagetown, likely a sugar maple (or basswood)

This zine looks at Cabbagetown's past through the traces of ecology. It also acknowledges that this land has been peopled by the Mississaugas of the Credit, Anishinaabe, Haudenosaunee, and Wendake Nations since time immemorial.

These Nations lived and live in deep and reciprocal relationship with the plants, water, and animal communities around us.



My Grandmother Cedar: Nokomis Giizhik (*Thuja occidentalis*).
Mary Siisip Geniusz (Anishinaabe), 2015

In the rush to urbanize, develop, and “civilize”, early settlers cleared forests, drained marshes, and gridded the land into rows of rectangular streets.

This process changed Cabbagetown’s ecology irreversibly.



Cabbagetown, 1851. Author Rollo Myers. City of Toronto Archives

Using the tools of the “landscape observer”¹ to practice and expand our landscape literacy², let’s examine present day Cabbagetown for ecological clues that form a trail back to its not-so-distant past.

Let’s read Cabbagetown together.

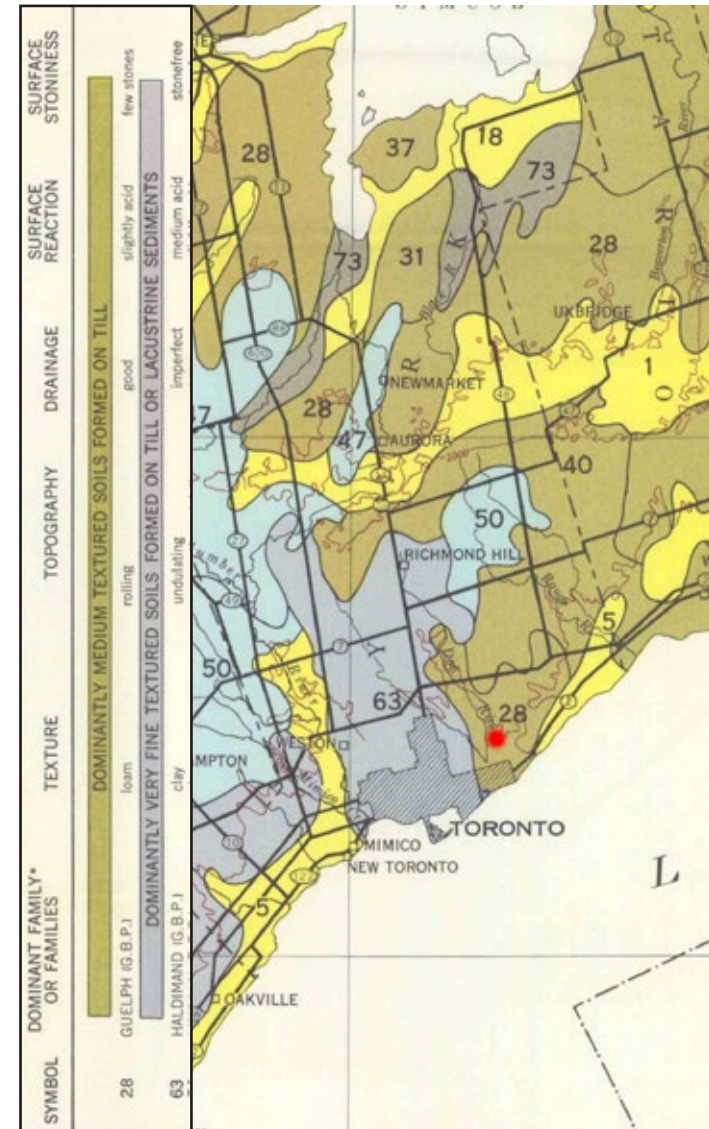


Hillshade of Cabbagetown with boundary. Scale 1:10,000. City of Toronto Data.

1: SOIL

Let's begin with the ground.

Soil data tells us the story of glaciers dancing over this landscape millions of years ago. Located just west of the Don River, Cabbagetown rests on tills that were deposited approximately 443.8 to 485.4 million years ago in the Paleozoic-Ordovician era.³



Soil Associations of Ontario. Canada Department of Agriculture. 1960

In 1955, the Experimental Farms Service, Canada Department of Agriculture, and the Ontario Agricultural College published a series of soil surveys mapping the various kinds of soil found in Ontario.⁴

Despite its' age, the survey tells us that the soil around Cabbagetown was likely clay, clay loam shale, and limestone till. The character of the soil determines what will grow here.

SOIL MATERIALS

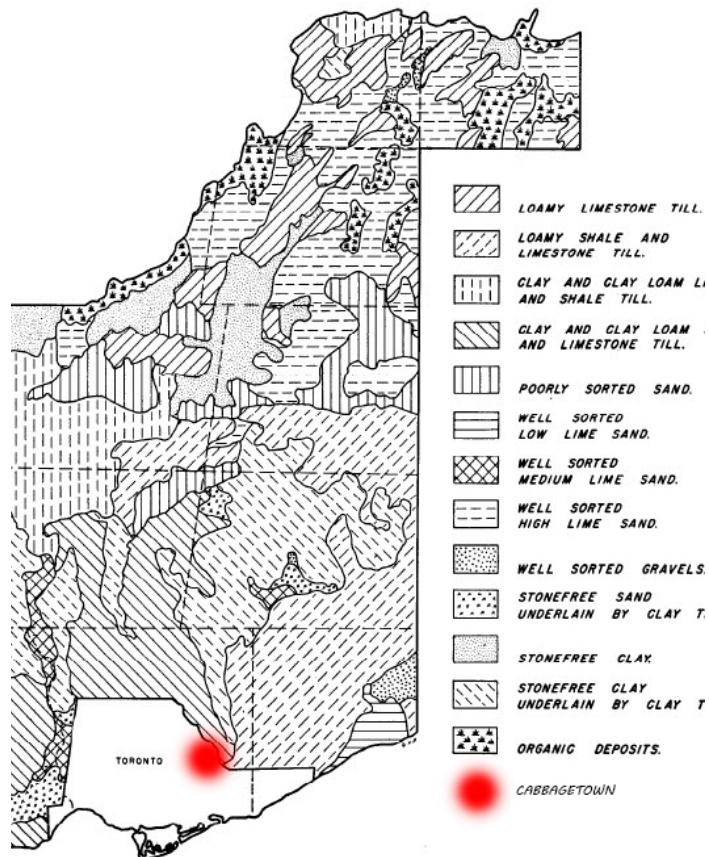


FIG. 4—Outline Map of York County showing distribution of soil materials.

Soil Survey of York County, 1955, with additional legend item by author

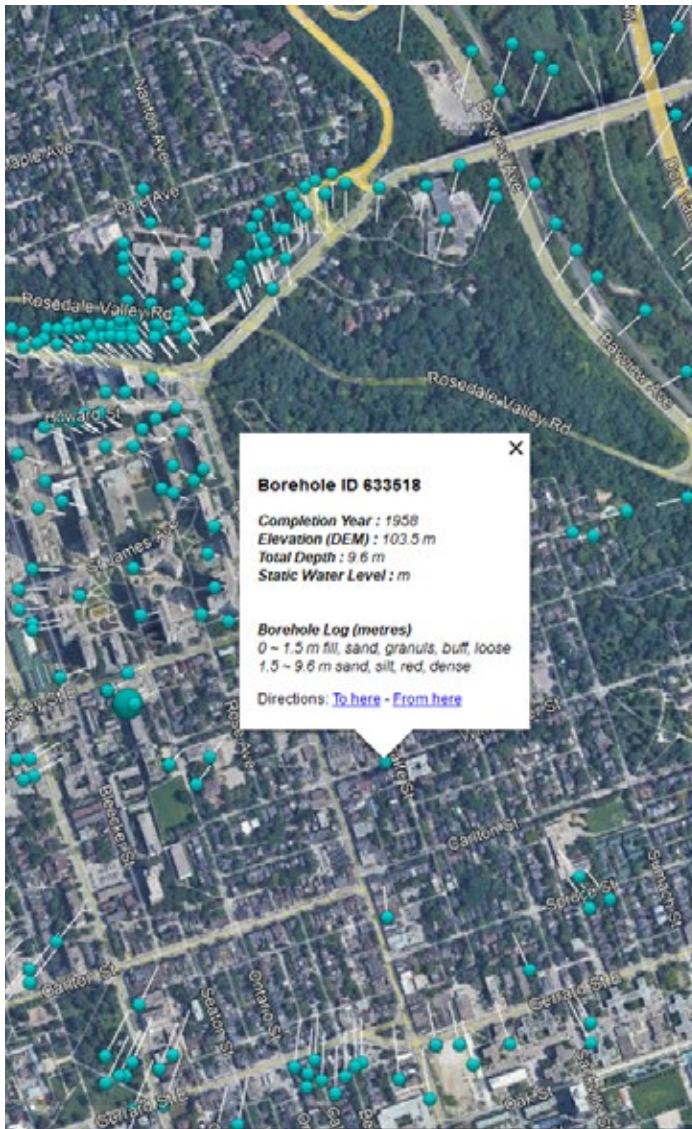
Over time, soil forms vertical layers, with distinct properties occurring in each layer. In the topmost layer, or the 'A' horizon, organic matter decomposes and plants anchor their roots. The composition of deeper soil horizons, such as the 'B' and 'C' layers, vary in terms of drainage and texture.⁵



Grey-Brown Podzolic Soil horizon. Soil Survey of York County, 1955

A publicly available map of boreholes taken between the year 1900 and the present indicate a range of soil types, with a wide range of fill depths and textures.

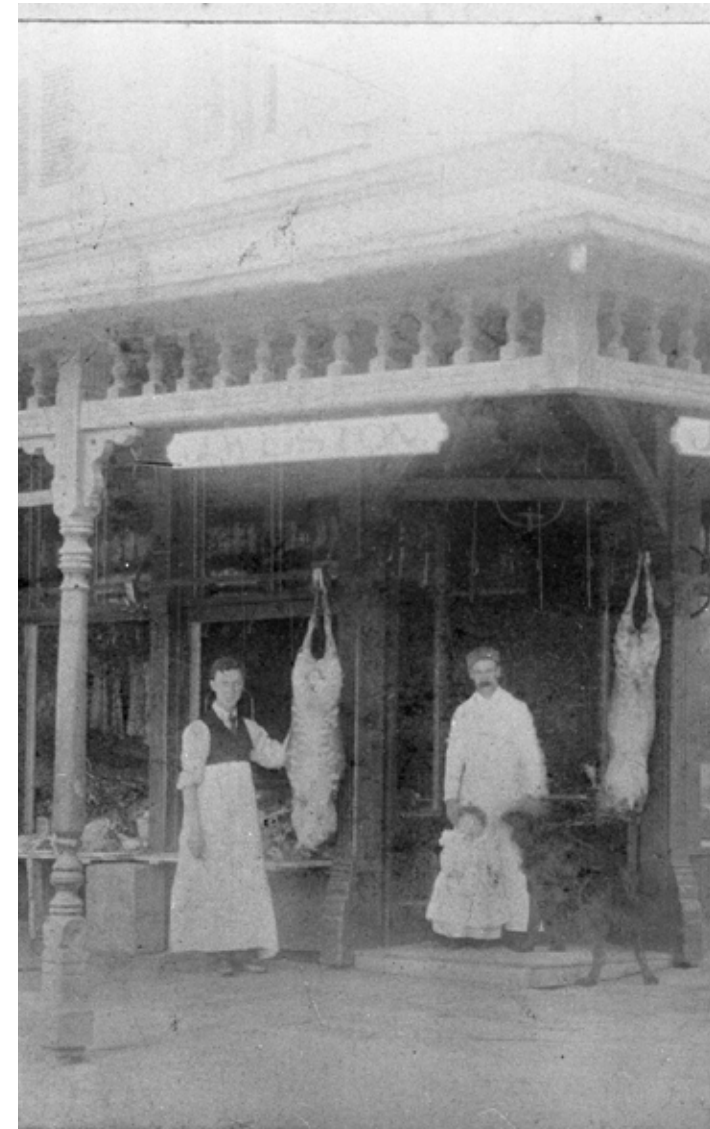
Of course, differing technologies and description methods may account for some of the soil discrepancies.⁶



Borehole from 1958. Ontario Geotechnical Boreholes

Cabbagetown was developed in the Victorian era, when workers excavated basements by hand. As such, the soil horizon outside the home (and in the garden!) would be preserved.

In contrast, today's development employs gas-powered bulldozers to regrade land and completely mix soil horizons in the process. This impacts plants, bacteria, and fungi health.

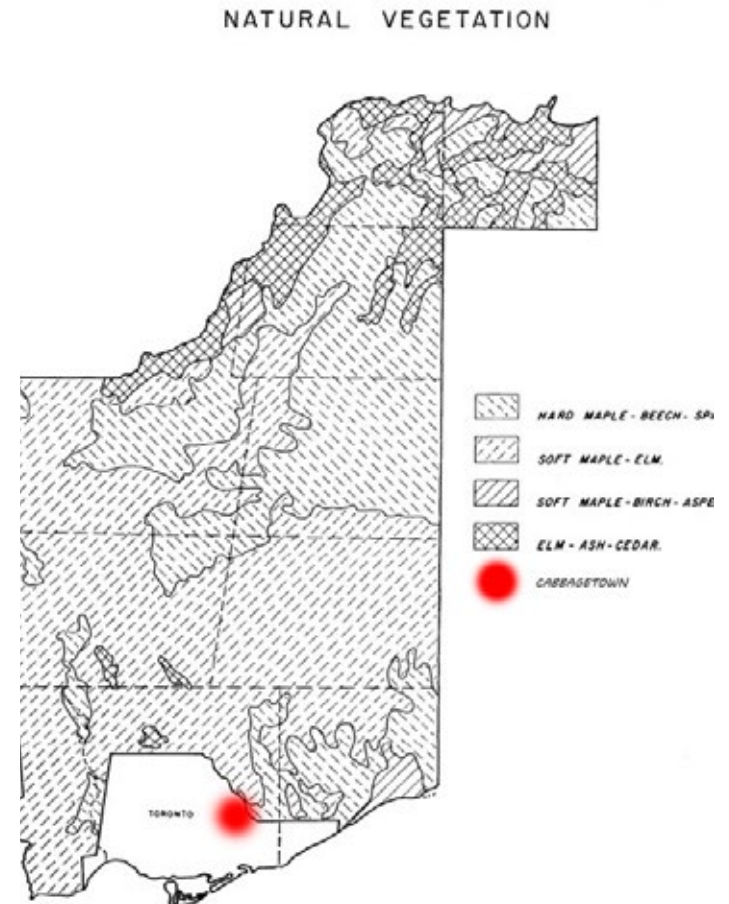


Weston, Joseph W., butcher shop, Carlton St., northwest corner Parliament St, 1896. Toronto Public Library Archives

3: TREES

What does all this soil information mean for the vegetative community here? What could grow in the soil and slopes of Cabbagetown, and how does that fit into the broader historic landscape of Southern Ontario?

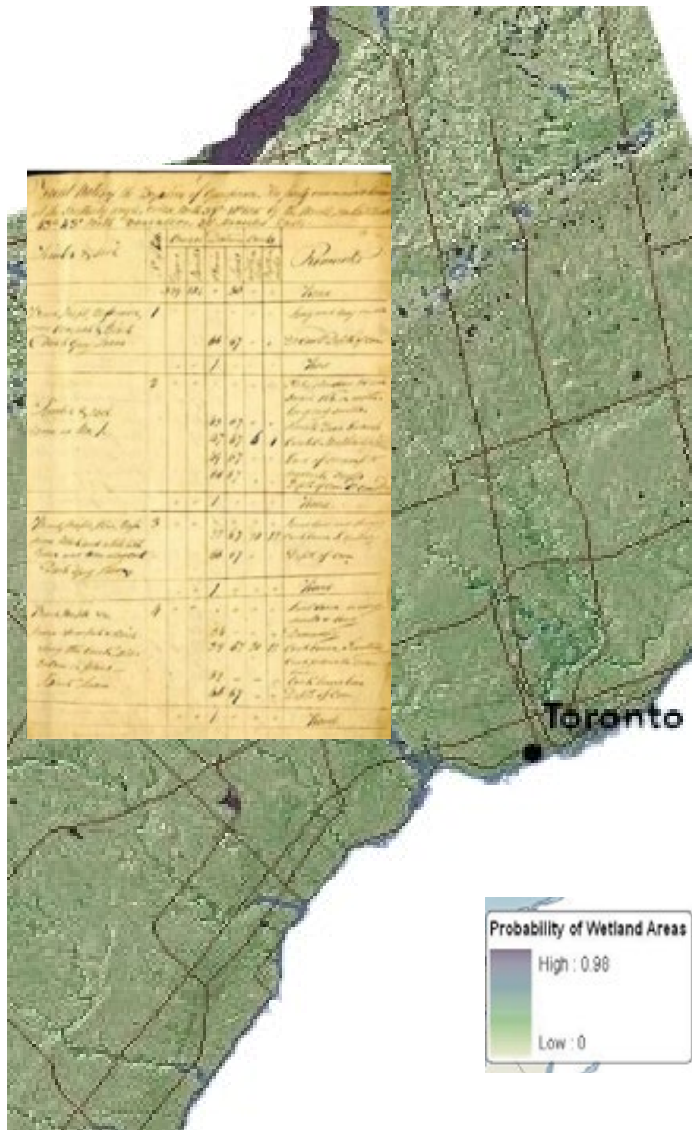
This map indicates “hard maple-beech-spruce” forest communities. It probably does not account for the wetland habitats proximate to the Don River, or the variability of soil within Cabbagetown itself.



Vegetation Distribution across York County. Soil Survey, 1955

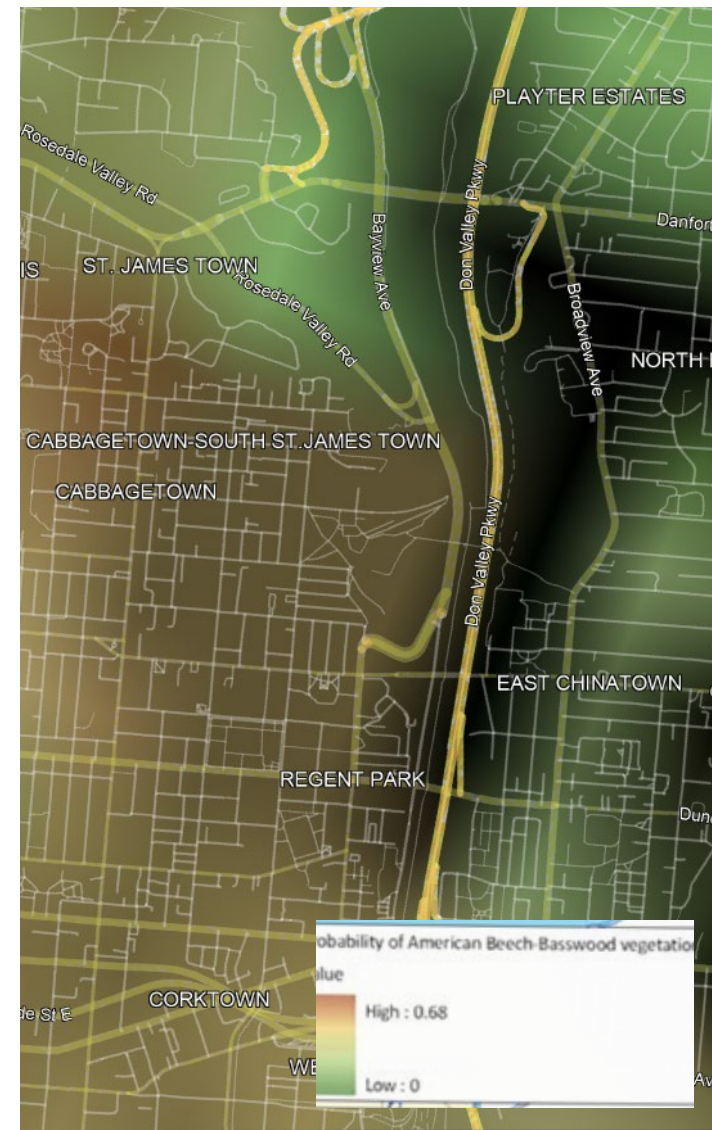
And my goodness, is there an updated map yet??

Yes and no. Updated research on pre-settlement vegetation has been assembled from early surveyors' reports of the area. Sadly, most of this data is not yet publicly available. So we must draw some broad conclusions based on what is available.



Map of pre-settlement vegetation, and surveyor's records. Puric-Mladenovic, 2011

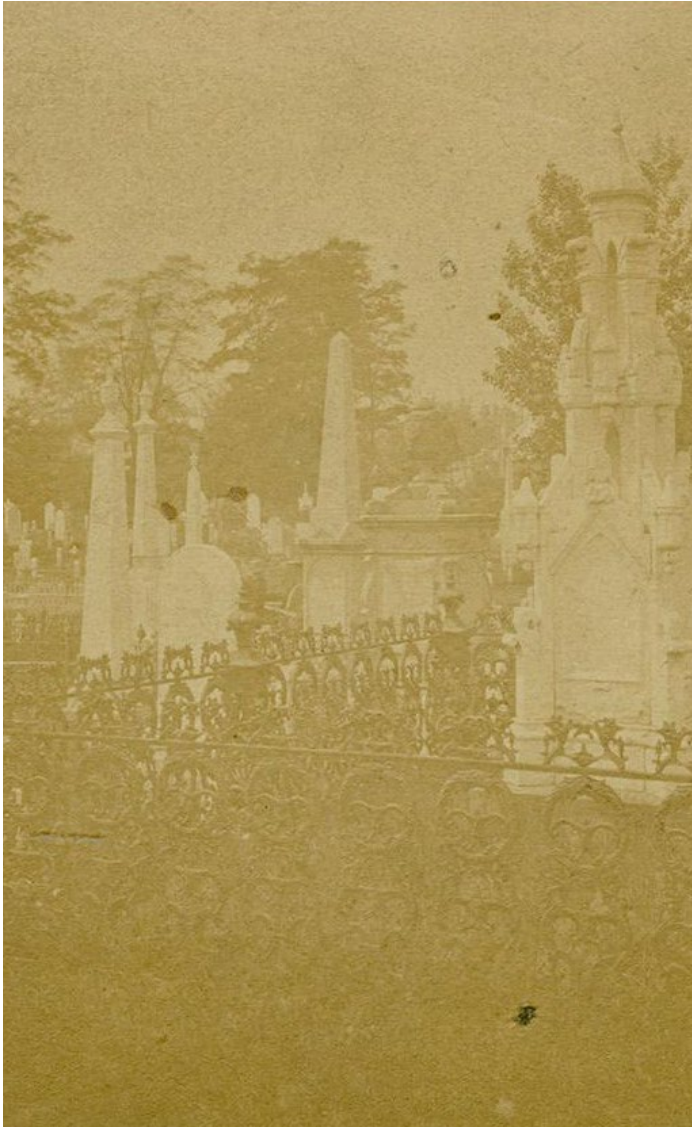
This map seems to indicate a relatively high probability of the “American beech-basswood” vegetative community.⁷ That, combined with the aforementioned ‘hard maple-beech-spruce’ map, indicates the likely presence of beech on site. Let’s see if we can find them in Cabbagetown. But where to look?



Zoom in of pre-settlement vegetation map with present day roads, Puric-Mladenovic, 2011. Accessed via Google Earth

On maps since at least the 1850s, the Necropolis and the St. James' Cemetery provide unique places for trees to grow inside the otherwise gridded environment of developing Cabbagetown.

Further research would be required to examine ecological remnants in the street trees and private gardens of Cabbagetown.



Necropolis. Unidentifiable mature trees in background. James Esson, 1870. Toronto Public Library Archives

Success! Inside the Necropolis, mature beech trees dotted the cemetery. The one pictured below measured approximately 0.75 m (or 29") in diameter. Want to know how old it is? Multiply diameter (in inches) by the Growth Factor, which for American beech is 6.⁸ This is an estimate, as trees are affected by external factors.

29x6=174 years. Born in the year 1850.



Fagus grandifolia in the Necropolis. 2024.

Beech! American beech. *Fagus grandifolia*.

Bark like an elephant's skin, host for many insects, nuts providing food for many animals.

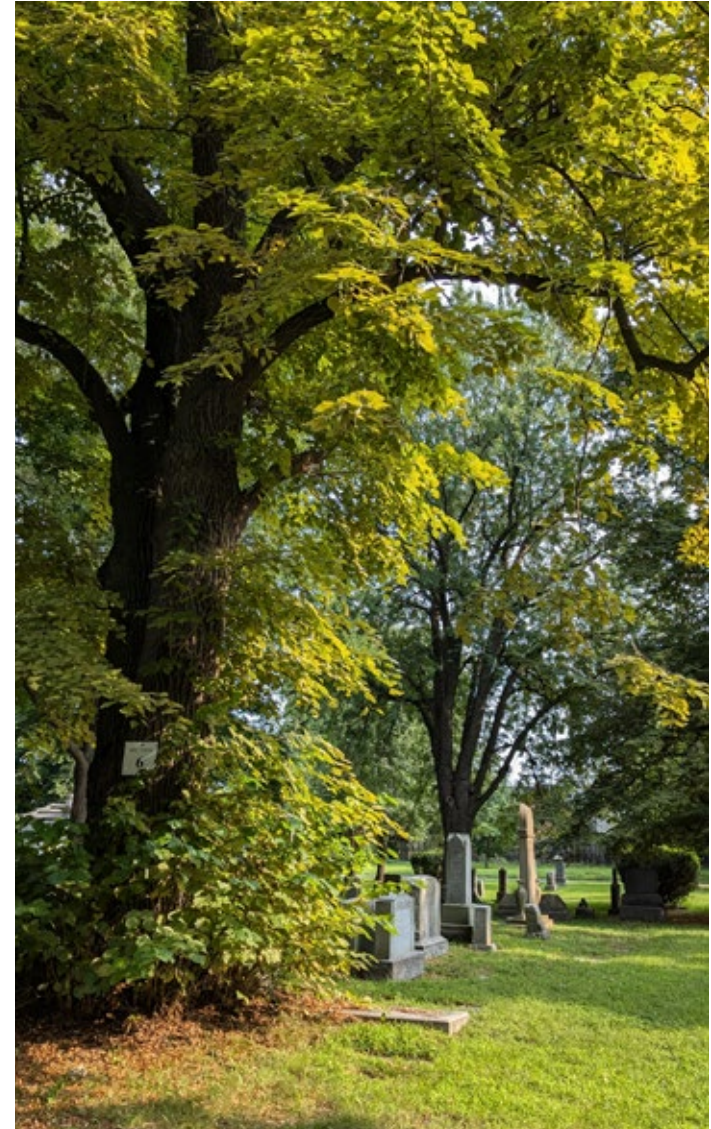
This slow-growing deciduous tree can reach twenty-five metres tall and thrive in shady conditions. It's a keystone and late succession species and has been seriously threatened by beech bark disease.⁹



American beech, *Fagus grandifolia*, leaves and fruit. Government of Ontario

And don't forget about basswood, or *Tilia americana*, or American linden. This species appears many times throughout the Necropolis and the St. James' Cemetery.

With a diameter approximately 0.75 m (29") across and a growth factor of 3, this tree seems to be 87 years old. No spring chicken, but certainly younger than our friend beech.



Tilia americana in St. James' Cemetery, 2024

Basswood is a beautiful and useful tree. Heart-shaped leaves (edible!) and sweet, yellow spring flowers that provide tea for humans and food for bees. The fibres of this wood are excellent for cordage, and its wood lightweight and malleable.¹⁰



Tilia americana, Government of Ontario. Accessed 2024

In the cemeteries there were a number of other tree species, including but not limited to:

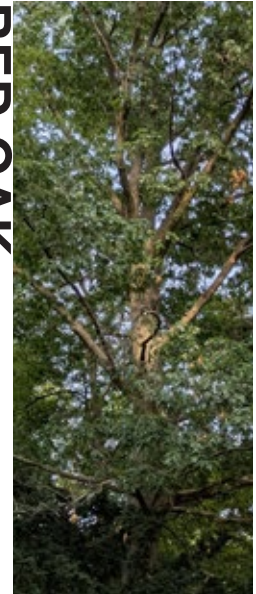
SILVER MAPLE



HONEY LOCUST



RED OAK



EASTERN RED CEDAR



In conclusion, yes, there are some species representatives from the probable historic forest composition in the present day cemeteries of Cabbagetown.

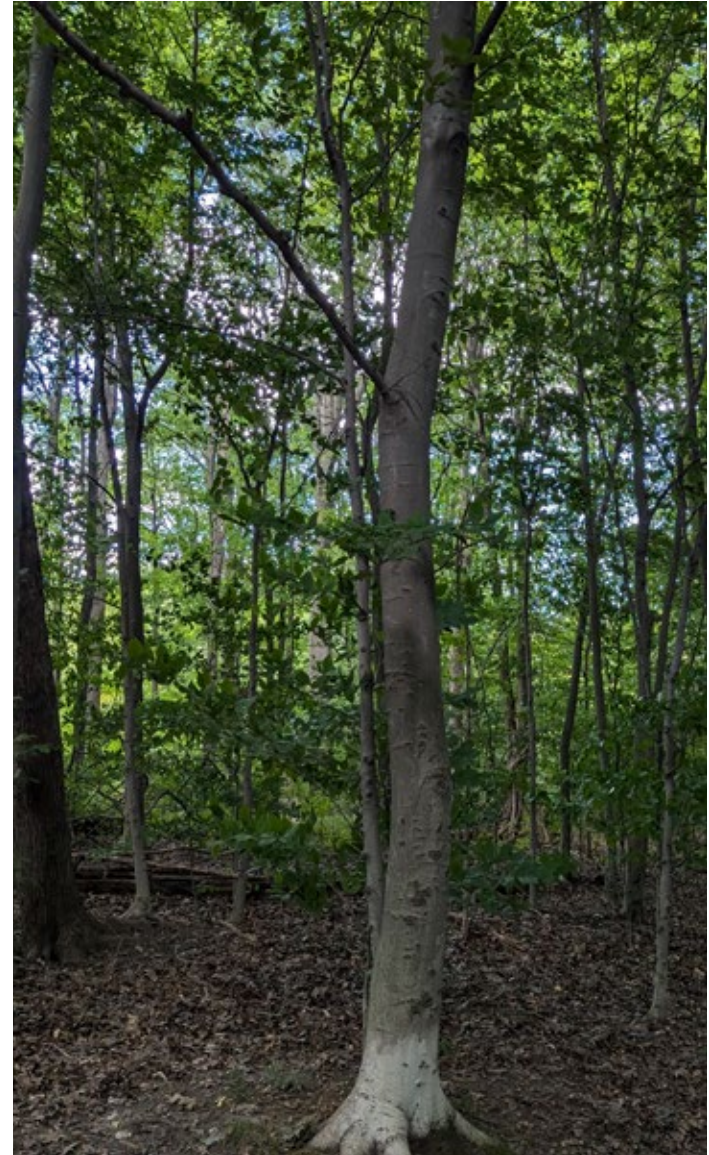
What role did this grounds crew from the 1880s play in removing, planting, or maintaining trees around the graves of their time?



View to Necropolis, grave diggers, ca 1880. James Esson. Toronto Public Library

What would the pre-settlement forest have looked like?

A mixed-hardwood forest, with beech, basswood, and potentially maple species, would have been dominated by tree cover, with a smaller palette of shrubs and herbs.¹¹ Visiting a maple-elm forest in Sunnybrook Park gives us an idea.



Beech-maple forest in Sunnybrook Park, Toronto. 2024

Herbaceous vegetation, or understory, associated with beech-basswood-maple forest includes some of the following species:



Partridge-berry



Whorled wood-aster



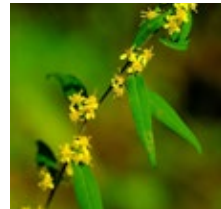
Jack-In-The-Pulpit



Starflower



Christmas fern



Bluestem Goldenrod



Painted trillium



Mayapple



Canada mayflower

In contrast, the “wild” or unmown ravine areas of the Necropolis and St. James’ cemetery read like a who’s who of today’s invasive plants:¹²

- English ivy (*Hedera helix*)
- Garlic mustard (*Alliaria petiolata*)
- Tree-of-Heaven (*Ailanthus altissima*)
- Dog-strangling vine (*Vincetoxicum rossicum*)
- Periwinkle (*Vinca spp.*)



Necropolis ravine, July 2024

4: IMPLICATIONS

The rapid urbanization of Cabbagetown and the GTA more broadly has forever altered the quality and character of this land.

Though we find remnant species inside the cemeteries, urban practices such as extensive hardscaping, road-salting, and gardening invasive plants, have contributed to the habitat loss and decline of species diversity that we see today.



Parliament North of Wellesley

Parliament St., North of Wellesley. 1923. City of Toronto Archives

Inside the Historic Conservation District of Cabbagetown, residents must ask themselves:

What aspects of the past are we conserving?

In the face of a climate future that has never been seen or experienced before, how can understanding our ecological past guide future decisions?

What is the role of preservation in relation to the ecology of the neighbourhood, especially given the high level of disturbance throughout the past two hundred years?

How can we work together to collectively steer land management efforts?

As a community of organized and interested people, there is a real and unique opportunity to deliberately define the future of Cabbagetown's urban ecology.



Cabbagetown yard sign, ca 1909. City of Toronto Archives.

Here are some ideas, organized on a spectrum from individual action to collective effort.

INDIVIDUAL

You:

- Plant in vegetative communities. What companion species would your plants and trees have preferred to live with?
- Plant species from historic forest types, but source seeds from farther south to survive climate change.
- Accept that no “pure” native garden exists, and that plants (like people) migrate too.

You + your neighbour:

- Join backyards and front-yards to expand growing area.
- Share planting, labour, and maintenance costs.
- Apply the same tips for individual gardens, but with an expanded plot size and habitat development impact.

You + your neighbourhood:

- Develop planting guidelines for your whole neighbourhood.
- Educate through workshops, gardening groups, gardening tours (!), flyers, and community gardening days.
- Provide incentives for participation, rather than punishment.

You + land commons:

- How can we conceptualize land use beyond private ownership?
- Connect with Indigenous groups in the city to learn about Indigenous stewardship practices.
- Empower and collaborate with Indigenous community to practice collective land management techniques in your neighbourhood.

COLLECTIVE

5: CLOSING

Thank you to the Cabbagetown Preservation Association for supporting the development of this work through their Student Experience Programme.

Thank you to Professor Danijela Puric-Mladenovic for opening my eyes to the complexity of soil and its ecological implications.

Thank you to everyone who contributed to editing and discussing the ideas: Dahlia, Karine, Becky, Mairina, Steve, Shalaine, Sarah, Robert, and of course, Gale.

Thank you to my home team, Dahlia and Kugel, for cheering me on through the finish line.

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Riverdale Park, looking northwest towards Necropolis Cemetery in background. 1910. Toronto Public Library Archives.

