DARBY MCGRATH

LISTENING TO TREES, AND OTHER LESSONS FROM A LIFE-LONG LEARNER

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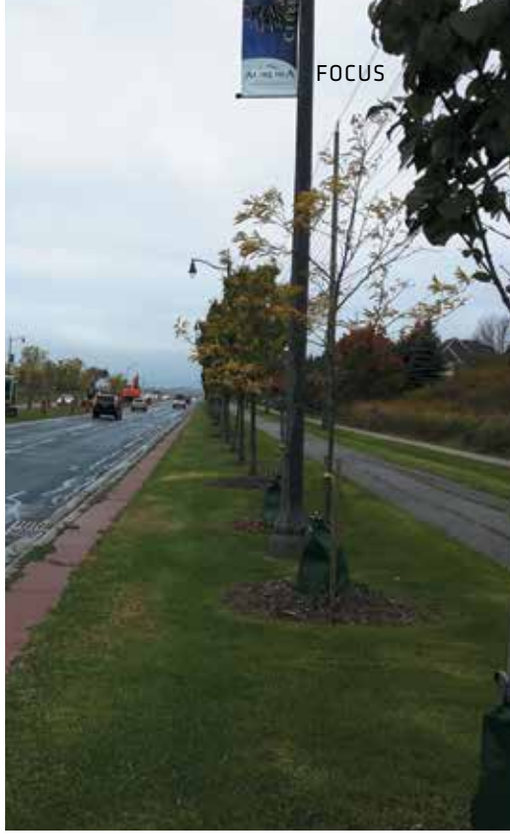
ÉCOUTER LES ARBRES ET AUTRES LEÇONS D'UNE ÉTERNELLE ÉTUDIANTE
Les défis auxquels sont confrontés les arbres ne sont pas propres à un groupe de chercheurs, de professionnels, d'industriels ou d'associations. Nous avons besoin de plus d'arbres à mature dans nos paysages bâtis. Or, comment y parvenir ? Face au changement climatique et à un nombre croissant de recherches sur l'importance cruciale des arbres en tant qu'écofournisseurs dans le paysage bâti, nous voulons des arbres plus que jamais à l'Anthropocène.

WHEN I WAS invited to participate in the CSLA panel on trees, I was concerned about having something valuable to contribute to the discussion and, while preparing my remarks, I was ready to listen and learn. During panel discussion, I heard a group of wonderful people, passionately discussing the challenges and opportunities facing trees in the built landscape and I realized something, perhaps not profound, but important, nonetheless.

The challenges facing trees are not unique to any one group of researchers, professionals, industry, or association. Certainly, the main objective discussed by panelists was the same: we need more mature trees – and that is FULLY mature trees – in our built landscapes, so how do we get there? In the face of climate change and a growing body of research about the critical importance of trees as eco-providers in the built landscape, we need trees now more than ever before in the Anthropocene.

I would like to reflect on some of the lessons that have shaped my thinking on the changes needed to succeed in our urban forestry objectives.



Lesson 1: Urban Forestry is Still a Relatively New Research Area

Cobbling together knowledge from other fields of research, as many of us have been doing, leaves significant gaps in the evidence-base that need to be filled to help urban forestry succeed. For example, my team is collaborating with the nursery sector on a management practices project to improve soil health for in-field tree production. Nursery producers told us the resources they commonly consult to help guide their soil management practices are from agricultural field crops – *annual* crops – because there are so few resources on caliper tree production for them to use.

On the other end of spectrum are the gaps in resources related to soil qualities in urban landscapes to support tree establishment. There, too, we are borrowing from agricultural recommendations. For example, 3% soil organic matter is considered "sufficient" when interpreting soil analysis results; however, when looking at soils in forested landscapes, organic matter content is significantly higher. With this contradictory information, what is the right value for soil specifications in urban landscapes? Important resources needed by professionals doing the hands-on work to get trees into our landscapes are often missing and we have been asking them to fill information gaps on their own. That is a big problem.

Lesson 2: Taking a Disciplinary Approach to Urban Forestry Is Fraught with Problems

A tree's life in the built landscape is a complex interplay of ecological, biological, physiological, morphological and sociological processes. No one group alone can achieve success in urban forestry. As a researcher concerned with urban tree establishment, I often think about the "tree chain of custody" when I consider the many actors playing a role in the success of urban tree establishment and how to create tools to support them. From propagators, nursery producers, designers, specifiers, soil suppliers, purchasers, installers, maintenance and tree care and the community welcoming the tree into their landscape – each hand touching a tree along the journey is part of this chain of custody.

Until we begin treating tree establishment and urban forestry as the interconnected value-chain it truly is, we will not make radical advances in urban forestry in Canada. Until we understand that tree establishment cannot be fully understood using a disciplinary approach, I fear that we will fail to make the big changes needed to achieve the objective of fully mature trees in our built landscapes. We need to find a way to advance and support a value-chain approach to research to help fill those information gaps we keep bumping up against.

Lesson 3: Listening and Sharing

My initial trepidation about contributing value to the panel is perhaps less trivial than originally thought. How often do we effectively communicate to professionals outside of our niche or discipline? How often do we think that what we have to say is obvious or self-evident, so we don't share it? I suspect that this happens all too often and as a result we do not share experiences and knowledge nearly enough. Further, we often do not take the time to listen to the chorus of voices that can inform us and open our eyes to different ways of doing things. In this urban-tree value chain, we need to listen and collaborate to figure out how the puzzle pieces of what we do influence one another.

Lesson 4: Nature/Trees Will Find a Way, if We Let Them

The final lesson is that trees know what they need to grow, persist, mature, die, decompose and give life to their ecosystem. Sometimes when I stand in an urban setting, the built landscape appears to me as a tableau of human hubris. Absent from human construction and design, forests begin anew after disturbances. With time and many ecological processes (that, let's face it, we only partially understand), they grow and reshape the landscape. Somehow, we have managed to build landscapes that exclude them – in fact, in many instances, we have created conditions that are diametrically opposed to their existence.

I learned this lesson many years ago and it shapes my work every day: to truly integrate trees into our landscapes, we need to approach design considering trees' needs early and often. Frequently we see trees stressed, struggling and failing in the landscape, telling us that we have missed the mark – it is time we start listening to them.

PHOTOS DARBY MCGRATH