Miyawaki Forests: Restoring Nature Downtown

Maya Dutta



Biodiversity, Climate, and EcoRestoration

- Understanding the active role of biodiversity in shaping the climate and conditions of life
- Shift from single focus on carbon to appreciating the systems that govern life on our planet
- Changing our relationship to our ecosystems to create resilience

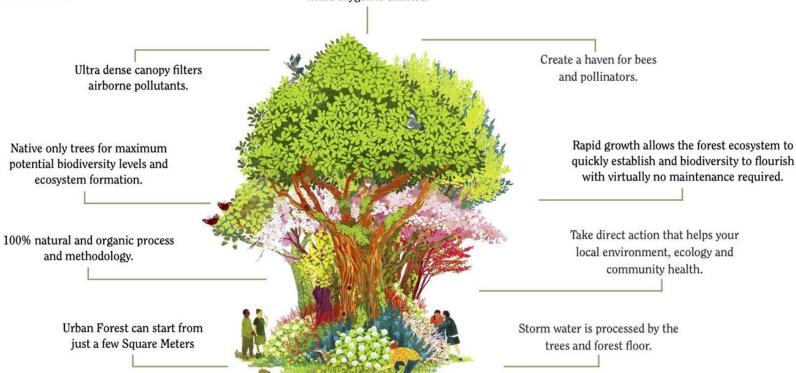


SUGi Pocket Forests



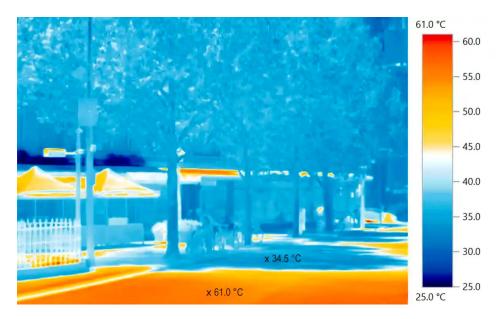


CO. is captured and sequestered while oxygen is emitted.



Global Warming Requires a Cooling Solution

Nature keeps the Earth cool and buffers extremes



A systems approach multiplies those benefits

The Beauty of the Mini-Forest

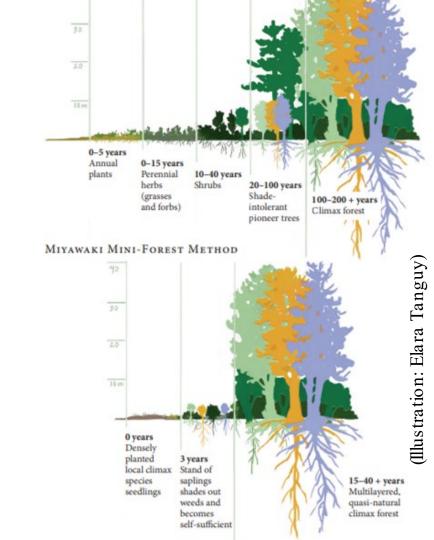
- Miyawaki method can create small pocket forests
 (> 1000 sq ft)
- Footholds for biodiversity
- Spread education, appreciation for native ecology, and stewardship ethic
- Combat environmental injustice



Origin and method

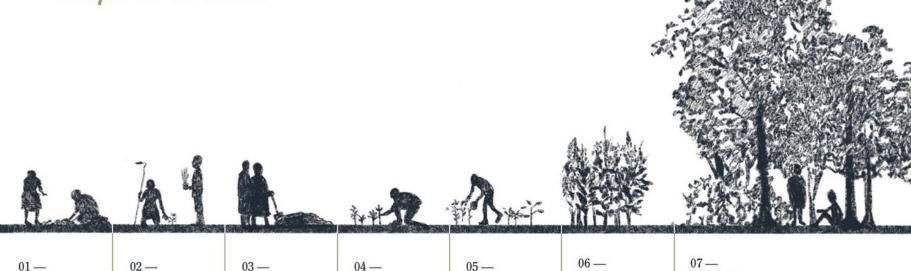


Dr. Akira Miyawaki (1928-2021) pioneered the method based on decades of work and observation, and his understanding of ecological succession and potential natural vegetation (PNV)



Miyawaki Method

— Steps & Growth



Soil Survey

Species Survey

Soil

Engineering

Dense Plantation

Maintain Forest

Self-Sustaining Forest

(After Two Years)

Climax Forest Equivalent to a 100-year-old Forest

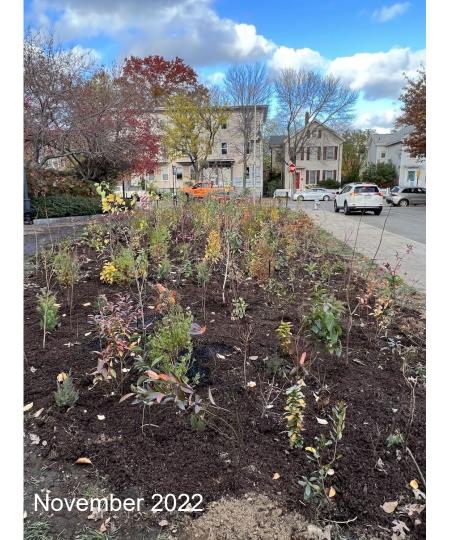
(After Twenty Years Plantation)

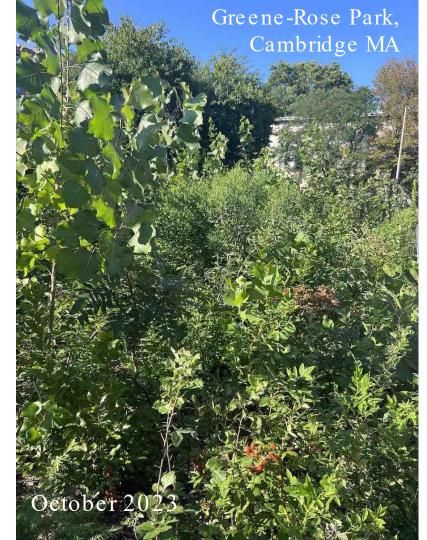
Danehy Park, Cambridge MA



October 2021

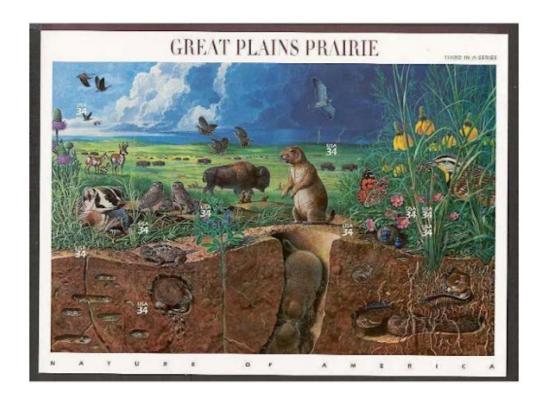
October 2023





Work with allies

- Harness the power of photosynthesis
- Foster living soil, partner with wildlife





Community forests sustained by community members

- Planting
- Mulching & Weeding
- Monitoring
 - Growth & Survival
 - Biodiversity & Health



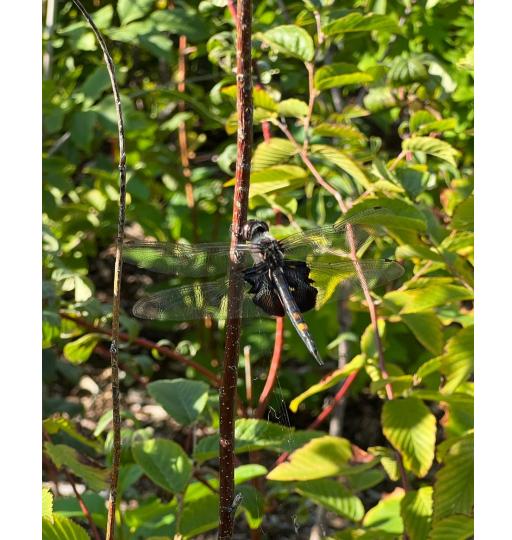






















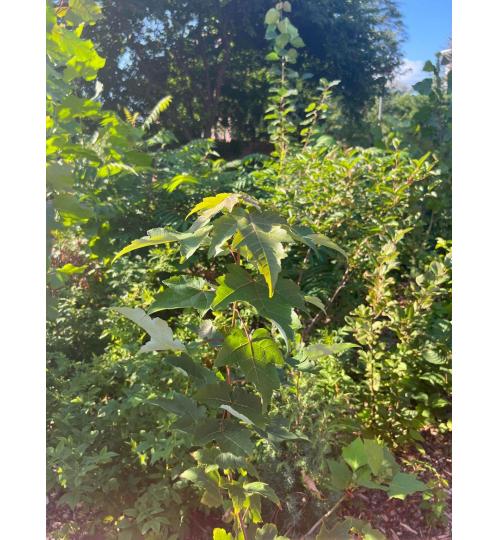














Miyawaki Forest movement

- Miyawaki Forests / Mini Forests / Tiny Forests around the world
- School forests from Lebanon to the Netherlands
- Regional forests in Cambridge, Somerville,
 Natick, Brookline, Ayer, and counting
- Opportunities for education, planting, stewarding, and seed starting

Mini-Forest REVOLUTION

Using the Miyawaki Method to Rapidly Rewild the World



HANNAH LEWIS
Foreword by PAUL HAWKEN





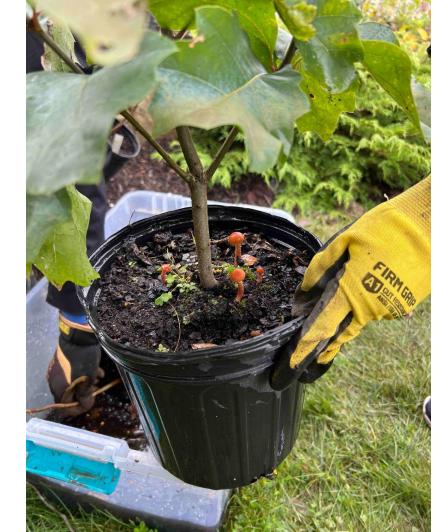




















Growth and expansion

- School forests, hospital forests, food forests
- Biodiversity and cooling corridors
- Collaborating with research institutions
- Appreciation for wild spaces and biodiversity
- Appreciation for native plants and trees;
 pollinator gardens; community gardens;
 rain gardens, and other nature based solutions
- Beware an Either/Or mindset this is NOT a replacement for conserving intact
 trees and forests





Get Involved

- Planting today at McGrath Lot
- Sign up for ongoing stewardship
- Keep up with Green Worcester





Get Involved

- Planting next Saturday, May 18 at Plumley Village
- Sign up for ongoing stewardship
- Keep up with Green Worcester





Get Involved

- Learn more about Bio4Climate's projects at bio4climate.org
- Join in person and online classes and events
- Volunteer at mini forest projects around Greater Boston
- Stay tuned for photos and videos





"The Great Work of Our Time"

... to cool the climate, make water and food available, increase health, resilience, biodiversity, and the power of people and communities





Thank you!

