WOOD BURIALS: the possibilities of restoration forestry

Forest restoration in Québec has seen increased popularity as a management tool for creating forest ecosystems that are more resilient to insect pests like the spruce budworm and severe wildfire. This partial thinning results in large amounts of small diameter logs and brush, or slash, that has little commercial value. Slash piles burned in practice rather than left in the forests to decay because controlled burning lowers the risk that the wood becomes fuel for uncontrolled and severe wildfires.

An effigy garden with mounds of wood buried under a blanket of low carbon earth-cement celebrates restoration wood for the carbon it contains and as a symbol of healthier conifer forests. Managed forests are effective carbon sinks and offer the possibility of an eased transition from northern conifer forests into predominantly broadleaf forests as temperatures rise and climate changes.

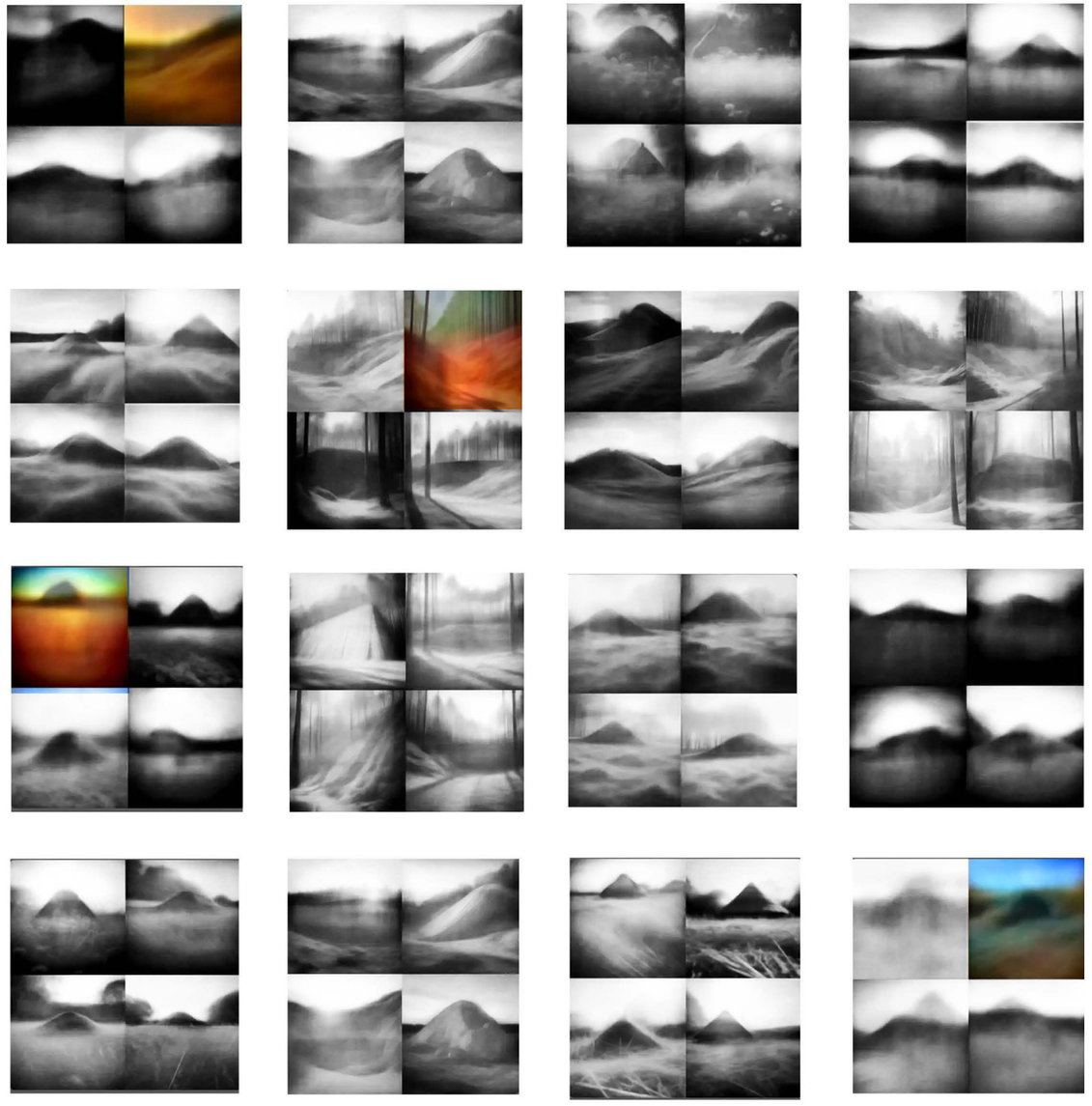
The user experience is marked by reflections on wood mineralization, fossilization that happens when wood comes in contact with certain minerals like the calcium carbonates in lime, silicates in wood ash, and carbon in charred wood. Visitors find themselves in an ecosystem where micro-organisms digest minerals into the pores of buried wood, where brilliant mosses and sod grow in well-crafted patterns on buttercream surfaces of earth cement, and where spruce and fir trees tower.

Reference: Ameray, Abderrahmane, Yves Bergeron, and Xavier Cavard. “Modelling the Potential of Forest Management to Mitigate Climate Change in Eastern Canadian Forests.” Scientific Reports 13, no. 1 (2023): 14506–. https://doi.org/10.1038/s41598-023-41790-2.

Plant List and Material List

Plants and plant material that appear spontaneously in a northern boreal conifer forest:

- A floor of dried conifer needles
- Balsam fir (Abies balsamea)
- White spruce (Picea galuca)
- Black spruce (Picea mariane)
- Mosses that grow naturally in thin layers of clay soil (see images of constructed pilot project)



The vision is for many mounds throughout North America. The garden will contain only one select mound.

WOOD BURIALS

VanderGootEzban Studio

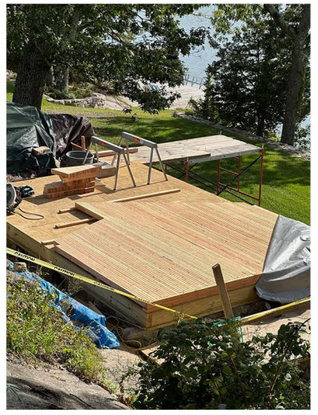
606 Woodside Parkway, Silver Spring, Maryland 20910, www.vandergootezbanstudio.com
Main Contact: jvanderg@umd.edu

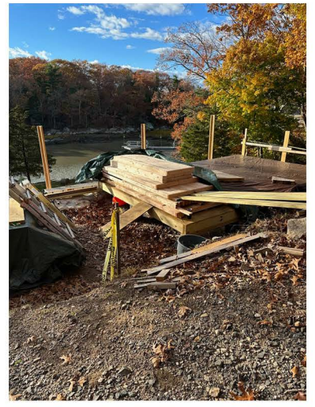
JANA VANDERGOOT is a licensed architect, Associate Professor of Architecture and Affiliate Associate Professor of Landscape Architecture with tenure at the University of Mayland, College Park. VanderGoot's research has recieved National Science Foundation funding. She received the Reiger Graham Prize to study at the American Academy in Rome and published the book "Architecture and the Forest Aesthetic" with Routledge in 2018. Her most recent work on carbon vaults is funded by Yale University's Carbon Containment Lab.

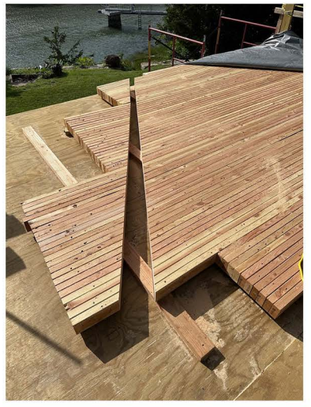
MICHAEL EZBAN, RA and ASLA is Assistant Director of Graduate Architecture and Assistant Clinical Professor at the University of Mayland, College Park. Ezban's work is focused on multispecies urbanism, and the design of landscapes and buildings that foster entanglements between humans and other animals. His book Aquaculture Landscapes: Fish Farms and the Public Realm (Routledge, 2019), was awarded the 2020 JB Jackson Book Prize, an honor bestowed to books that make a significant contribution to the study of garden and landscape design.

Ecology of Possibility

This project recognizes and reflects on wood mineralization, the fossilization that happens when wood comes in contact with certain minerals like the calcium carbonates in lime, silicates in wood ash, and carbon in charred wood. Visitors find themselves in an micro-ecosystem where micro-organisms digest minerals into the pores of buried wood, where brilliant mosses and sod grow in well-crafted patterns on buttercream surfaces of earth cement. They also find themselves within the large forest ecosystem where spruce and fir trees tower. Touching the monuments and helping to stack the wood piles is part of the audience feeling themselves through an embodies experience become an integral part of this ecosystem.







All-wood fastened Nail Laminated Timber pilot building, Guilford, Connecticut, 2023, Architect: Jana VanderGoot, RA

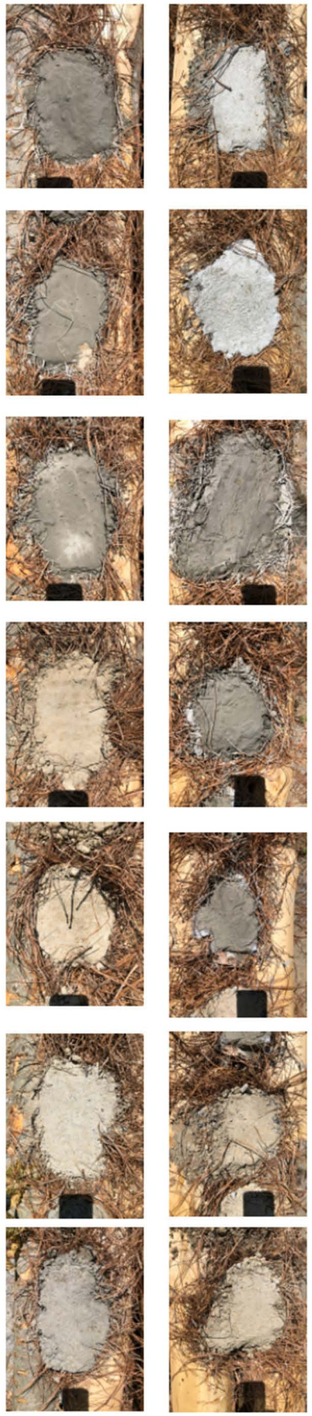


Figure x placeholder. Image Source: Jana VanderGoot, Yale CC Lab, 2023

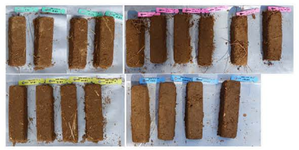
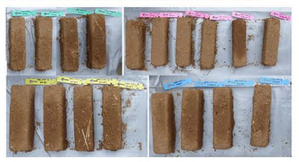
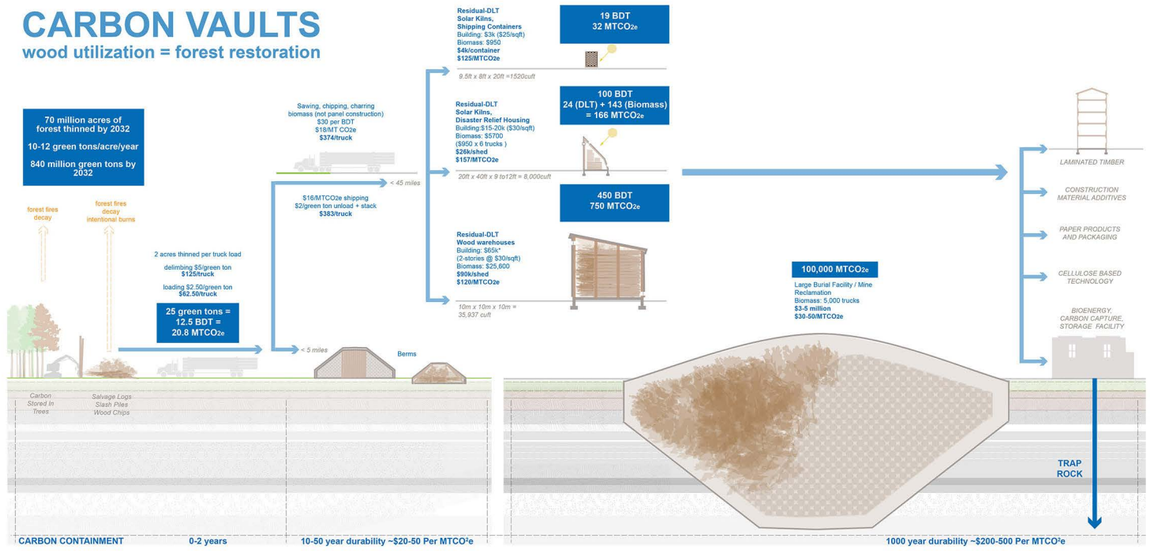


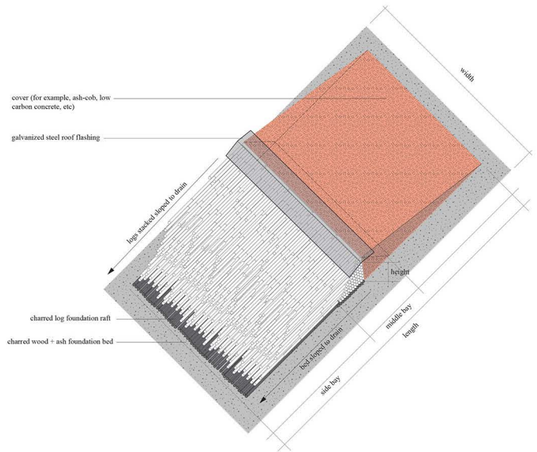
Figure x placeholder. Image Source: Jana VanderGoot, Yale CC Lab, 2023

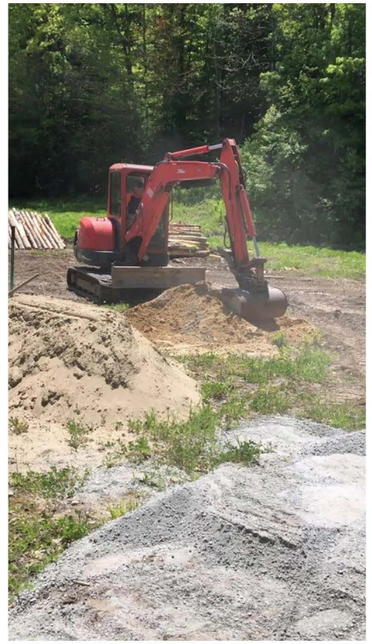




Low-Carbon Earth Cement Vault Covers, Research and Development, Image Credits: Jana VanderGoot, 2023. Funded by Yale Carbon Containment Lab.

Horizontal Cross-Stacking
PYRAMID





Wood Vaults, Pilot, Harvest, Equipment and Cost Analysis, in Redding, Vermont. Image Credits: Jana VanderGoot, 2023. Funded by Yale Carbon Containment Lab.