

Local Action, Lasting Impact: A Cross-Disciplinary Model for the Design of ‘New Landscapes’

New Landscapes—an educational summit and traveling exhibition first mounted at The Foundry in Cambridge, Massachusetts on May 10, 2025—reimagined György Kepes’s 1950’s MIT exhibition and publication, The New Landscape, which paired microscopic plant photography with poetic and scientific reflections. This contemporary reinterpretation served as a platform to raise public awareness about environmental justice, climate resilience, and the essential role of urban forests. Shaped by Kepes’s belief that understanding begins “through our senses,” the project brought together three partners: Green Cambridge, a community nonprofit dedicated to environmental stewardship; Lesley University’s Community Design Studio; and Wentworth Institute of Technology’s AIAS Freedom by Design program. At its center was Canopy Crew, Green Cambridge’s youth program involving high school students in environmental research, tree planting, and public outreach. Through workshops and presentations, these students invited the public to experience the urgency and promise of grassroots climate action. To amplify this message, Lesley’s design students translated findings from the Cambridge Urban Forest Master Plan into large-scale graphic panels inspired by Kepes’s method. Wentworth’s architecture and interior design students collaborated closely with the Lesley team to design modular, reconfigurable armatures made from reclaimed wood, referencing the industrial scaffolding aesthetic of Kepes’s original exhibit while modeling sustainable, low-waste construction practices. Together, the student teams created an immersive traveling exhibition that advanced dialogue around biodiversity, canopy loss, equitable access to green space, and long-term climate resilience. In Cambridge, a city losing an average of 16.4 acres of tree canopy per year, New Landscapes posed an urgent question: Why do we need urban forests? Touring The Foundry, Lesley University, the Cambridge City Hall Annex, and Wentworth Institute of Technology, the exhibition became a catalyst for community action demonstrating design’s power to educate, inspire, and empower.

Keywords: Interdisciplinary Design, Community Engagement, Environmental Stewardship, Youth Activism

Introduction

Like many cities globally, Cambridge, Massachusetts faces pressing environmental challenges, including accelerating tree canopy loss, limited and uneven access to green space, and the growing impacts of climate change—conditions that make urban forestry, climate resilience, and environmental justice urgent local priorities.

New Landscapes, an educational summit and traveling exhibition, was created in response to this environmental context, using art and design as public-facing tools to highlight the ecological and social significance of the city’s urban forest. Drawing on György Kepes’s 1951 exhibition and 1956 publication, *The*

New Landscape—which paired microscopic plant photography with poetic and scientific texts to reveal hidden natural systems—the project adapts his visual language to communicate contemporary environmental data, community values, and the urgency of collective action in Cambridge today. Rooted in the work of Green Cambridge, a nonprofit committed to climate justice, youth education, and urban forest advocacy, *New Landscapes* continues a legacy of integrating art, science, and civic responsibility to deepen public understanding.

This paper demonstrates how collaborative design, youth activism, and interdisciplinary approaches can advance environmental stewardship and strengthen community engagement around the future of Cambridge’s urban environment and - more broadly - serve as a prototype for other communities seeking innovative models of education and action.

Project Concept and Collaboration

Welcome to New Landscapes, a summit and exhibit inspired by an installation first shown in 1951 by local legend György Kepes and reimagined here as a place to nurture our collective understanding of and commitment to a verdant city; a corner of a bigger garden, so to speak, where seeds of transformation are planted and from which a generation of environmental leaders will grow.

This quote, presented as the lead line on the panel introducing the *New Landscapes* exhibition, articulates the project’s guiding vision—an immersive environment in which art, design, and community engagement intersect to promote environmental stewardship in Cambridge, MA. From the project’s inception, leaders and students from Green Cambridge, Lesley University, and Wentworth Institute of Technology collaborated closely through numerous in-person and virtual meetings to develop a vision for a one-day environmental summit at the Foundry—an event designed to bring together community members, students, and local organizations through workshops, presentations, and interactive learning. These collaborative sessions enabled all partners to deeply understand the goals of the summit and to explore how design could translate those goals into a compelling, educational, and visually engaging experience. Central to this framework was Green Cambridge’s youth-led Canopy Crew program, led by teens who helped shape the content of the summit and its intended impact.

New Landscapes emerged from this three-way partnership, guided by the thematic framework of György Kepes’s 1951 exhibition. Kepes, a Hungarian-born artist, designer, and educator, set about constructing a discourse between the arts and sciences centered on the perceptual form of our urban environment. The connecting language in his research turned out to be that of nature. Building on this work, Lesley University proposed highlighting a selection of his photographs as the foundation for the new exhibition and secured permissions from the Department of Special Collections at Stanford University where the archive is held. In addition to curating the collection of images, the Lesley team

expanded the quotations from the original exhibit and incorporated contemporary voices to enrich the dialogue between past and present.

Building on Kepes’s approach, the project established a shared conceptual vision while leveraging the unique strengths of each partner. For Green Cambridge, the images became a tool for communicating urban forestry research to the public. For Lesley University, they provided a model for integrating scientific information into both graphic and interactive exhibition design. For Wentworth Freedom by Design, the photographs and accompanying texts informed strategies for shaping physical space, translating Lesley’s concepts into modular installations that echoed the industrial aesthetic of Kepes’s original work.

This foundation naturally leads to a description of the collaborators themselves, whose expertise and mission-driven work brought the project to life:

Green Cambridge, founded in 2004, fosters a socially connected and climate-resilient city through programs in environmental science, justice, ecology, urban forestry, community engagement, and restoration. The organization empowers environmental leaders, promotes shared natural systems, and restores ecosystems across Cambridge. Canopy Crew is Green Cambridge’s youth internship program that trains high school students to become ambassadors for the city’s urban forest. Interns learn about urban forestry, climate justice, and environmental policy while planting trees, conducting community outreach, and helping address inequities in canopy cover across Cambridge.

Community Design Studio, Lesley University engages students in hands-on projects with nonprofits, bridging education, community impact, and creative problem-solving while cultivating design skills and leadership. The community studio courses are in-class internships that allow students to work with Boston-area organizations on a range of art, design, and communication initiatives. Students have partnered with hospitals, museums, and human service organizations on projects ranging from rebranding and website design to photography and environmental graphics.

Freedom by Design (FBD) club, Wentworth Institute of Technology, is a student-led chapter of the American Institute of Architecture Students (AIAS) that empowers architecture, interior, and industrial design students to apply their design and building skills in service of the community. Its purpose is to address real-world challenges—such as physical, educational, environmental, and cultural barriers—through modest, practical design and construction projects. The program emphasizes hands-on experience, leadership development, and community engagement, helping students create meaningful, lasting social and environmental impact while fostering collaboration with local organizations and neighborhoods.

Design Process

Lesley University's Community Design Studio

The design team began by organizing urban forestry data according to the growth cycle of a tree: (1) seed–sprout–root, (2) stem–bud–thorn, (3) sap–branch–leaf, and (4) trunk–blossom–fruit. This sequence communicated ecological data into a clear narrative about the benefits, challenges, and long-term impacts of Cambridge urban forests.

Seed–Sprout–Root captures the essence of the urban forest as both utilitarian and sublime. Utilitarian benefits include cleaner air, cooler streets, ecosystem support, and contributions to water quality and wildlife habitat. Sublime qualities highlight the cultural, social, and emotional value of trees: they provide gathering spaces, mark significant events, inspire creativity, and connect communities across generations. Together, this stage emphasizes how trees are foundational, vital members of the cityscape.

Stem–Bud–Thorn highlights the challenges and potential of Cambridge's urban forest. While the city values green space and sustainable practices, 65% of its landscape is built, and tree canopy is unevenly distributed, ranging from 13–39% by neighborhood. The city loses an average of 16.4 acres of tree cover annually, with climate change, limited biodiversity, and urban infrastructure adding further stress (City of Cambridge, 2019). This stage emphasizes that while trees take decades to mature, humans have the power to influence canopy growth and resilience through deliberate, sustained action.

Sap–Branch–Leaf emphasizes the collaborative care and equitable distribution of Cambridge's urban forest. The goal is a minimum 25% canopy cover in every neighborhood, with targeted increases of 10–25%. Success relies on collective action, with municipal departments, local organizations, volunteers, and residents all contributing to stewardship (City of Cambridge, 2019). Like a branching tree, strength and resilience come from working together to ensure the urban forest thrives for everyone.

Trunk–Blossom–Fruit highlights the mature, far-reaching benefits of Cambridge's urban forest and the ongoing work to sustain it. Green Cambridge's advocacy, education, and stewardship programs—from the Canopy Crew to community gardens—support climate resilience, environmental justice, and community engagement. City plans to expand outreach, improve management practices, and plant diverse, resilient trees aim to reduce canopy loss and achieve a 30% citywide tree cover, ensuring long-term ecological, social, and cultural benefits (City of Cambridge, 2019).

Each phase became a color-coded informational panel (brown, green, orange, pink), enabling visitors to quickly grasp key facts. Literary quotations—from György Kepes, Henry David Thoreau, Robin Wall Kimmerer, Annie Dillard, William Blake, Ralph Waldo Emerson, and Jane Hirshfield, among others—complemented the visual impact of the information alongside the photographs.

1 **Figure 1.** *Lesley University's design paired György Kepes' photographs with*
 2 *color-coded thematic quotation panels*



Source: Rawlins 2025

Freedom by Design (FBD) club, Wentworth Institute of Technology

While Lesley developed the panels, the Freedom by Design (FBD) team held design charrettes to generate and refine exhibition display possibilities. Collaborating closely with Lesley students, they developed a framework that presented the four color-coded growth stages of a tree in a visually compelling and meaningful sequence. Early in the process, the team also recognized that the exhibition, originally planned solely for The Foundry in Cambridge, would likely travel to additional venues and that this possibility required a system that was modular, lightweight, and adaptable across a range of spatial conditions.

Inspired by Kepes's MIT exhibit, which used metal piping to suspend photographs, the FBD team reimaged this industrial aesthetic to align with the project's sustainability goals. They designed a system of armatures constructed from reclaimed wood using low-waste methods, complemented by slender, minimal metal hardware. To enhance adaptability across venues, casters were added to the bases of all four freestanding structures, allowing them to be easily repositioned and reconfigured within any exhibition space.

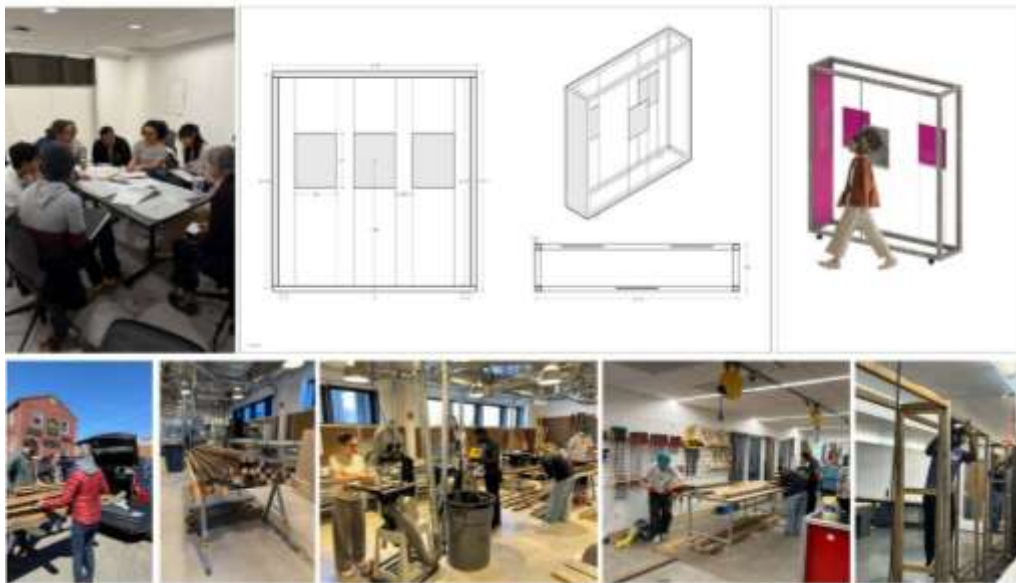
Achieving this vision, however, required a significant effort to source suitable reclaimed wood. The team embarked on an extensive search for donated materials, at times fearing that their design might not be feasible without the

right lumber. After considerable outreach, a breakthrough came when a local lumberyard offered a generous donation of repurposed wood salvaged from a barn in Pennsylvania. Upon seeing the long, rough timbers—still marked with nails, nail holes, and the wear of their previous life—the students recognized that the project was not only feasible, but enriched by the material’s history and character. The lumberyard cut the boards into transportable lengths for cleaning and milling at the Wentworth woodshop. There, students were trained to fabricate the specific concealed joints required to assemble the frames with hidden fasteners, ensuring that nothing distracted from Lesley’s informational panels.

The finished frames balanced the raw warmth of the reclaimed wood with elegant, minimal metal hanging hardware. Panels were suspended between the upper and lower rails, allowing their placement to be staggered for greater depth, with Kepes’s photographs and quotations alternating on the front and back surfaces. This assembly directed the eye toward the graphics while retaining a tree-like material presence that echoed the exhibition’s ecological themes. The reuse of wood underscored the exhibition’s commitment to sustainability while supporting both the educational and artistic goals of the project.

Throughout the design process, FBD and Lesley students met with Canopy Crew members to review the content and confirm that it reflected Green Cambridge’s mission and community priorities.

Figure 2. *Wentworth Freedom by Design involved iterative panel design, wood procurement, and design-build fabrication*



Source: Dikeos 2025

Exhibition Impact

The Canopy Crew Teen Summit, held at The Foundry on May 10, 2025 in Cambridge, MA, marked the public debut of *New Landscapes* and demonstrated the project's power to spark community dialogue and youth-led environmental advocacy. The Foundry—a 50,000-square-foot community hub dedicated to creativity and innovation—proved an ideal setting. As a public makerspace and arts/tech center offering studios, workshops, and flexible gallery and performance spaces, it is designed specifically to broaden access to creative, technical, and educational resources for both Cambridge residents and the wider community. The exhibition was installed in the expansive, double-height lobby, positioned just before the auditorium where the Teen Summit presentations took place, allowing visitors to engage with the exhibit en route.

Throughout the event, visitors wove between the four framed structures, reading the large-format informational panels, absorbing the selected poetic quotations, and lingering over the striking Kepes's photographs. The abstract nature of these images, printed at 16"×21", sparked conversation and curiosity, as viewers tried to decipher both their subject matter and his experimental photographic techniques. This combination of scientific information and abstract visuals encouraged engagement on both intellectual and emotional levels.

The Teen Summit brought together a wide audience of all ages. The Canopy Crew presented their research on Cambridge's urban forest, shared projections for the city's canopy future, and explained the importance of their teen-led tree-planting program. Environmental experts served as panelists, answering questions from teens and community members and amplifying the urgency of tree protection, equitable access to green space, and strategies for mitigating canopy loss.

The lively public interaction and strong community turnout at the Summit not only demonstrated the exhibition's impact but also catalyzed interest in extending the display to additional venues. This enthusiasm directly prompted the project's subsequent installations at Lesley University, the Cambridge City Hall Annex, and Wentworth Institute of Technology, broadening public access and deepening civic engagement with the importance of the urban forest.

Figure 3. *New Landscapes* was enjoyed from its debut at the Green Cambridge/Canopy Crew Summit at the Foundry (top row), to its later showings at Lesley University, Cambridge Arts Gallery 344 at Cambridge City Hall Annex, and Wentworth Institute of Technology (bottom row, left to right)



Source: Dikeos 2025

Conclusion

New Landscapes demonstrates how interdisciplinary collaboration, youth leadership, and community partnership can transform important ecological data into accessible, meaningful public knowledge. By integrating scientific information, youth research, design thinking, and artistic interpretation, the project enabled visitors to understand Cambridge's urban forest and its social, ecological, and cultural significance.

The wooden frames, serving as symbolic "trees," reinforced the exhibition's themes while providing a cohesive spatial structure. Visitor interaction—through questions, conversations, and reflections in a guest book—indicated curiosity and a desire for continued learning. The exhibition's extension from a short-term installation to nine months across multiple venues further underscores its success and public resonance.

Student teams gained hands-on experience in interdisciplinary collaboration, iterative problem-solving, and design, while youth participants actively shaped public messaging. The ownership of design, planning, fabrication, material sourcing, and coordination across organizations was central to the project's success, demonstrating the transformative potential of youth-driven initiatives when paired with clear guidance and mentorship.

By critically reflecting on challenges and successes—including iterative design decisions, material sourcing, and cross-organizational collaboration—*New Landscapes* illustrates that when students are entrusted with meaningful responsibilities, they can produce outcomes that are both artistically rigorous and

socially impactful, inspiring community engagement in environmental stewardship and other civic causes.

Drawing on György Kepes's *The New Landscape*, the exhibition demonstrates how creative, visually engaging approaches can enliven otherwise technical information, making it both comprehensible and compelling. By inviting audiences to experience trees as living systems and shared cultural resources, *New Landscapes* highlights the power of collaborative design to foster awareness, deepen civic participation, and inspire action in support of environmental and community well-being.

Figure 4. From design concept to exhibition, the collaboration between Lesley University and Wentworth Institute of Technology students and mentors made for an impactful partnership and event



Source: Dikeos 2025

References

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