

Constructs of Local Knowledge

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Project Budget:

\$11,000

Abstract:

This project brings together local material streams from the Virginia State Forestry Department and the City of Harrisonburg Public Works to allow JMU Architectural Design students to design and build projects for local community organizations. The aim is to provide an ongoing, symbiotic relationship between city, academia, and community to create built, meaningful public projects.

The Constructs of Local Knowledge project proposes the development of a re-producible model that links new methods of inventorying ash trees killed by the emerald ash borer (EAB) with a robust network of local builders, makers, and the community needs that they serve. This pilot project will be developed in conversation with collaborators at JMU and city agencies in Harrisonburg, VA, who are also invested in community-facing design-build projects that engage with local materials streams. We hope, over time, that this project will grow to encompass more partners, to further leverage scientific and environmental expertise, paired with design and construction capacity, to build spaces that enrich and engage local communities across the Virginia Commonwealth.

This project's immediate focus is the vast number of ash trees that are currently being removed from parks and public lands throughout Virginia: Hundreds of ash trees are slated for removal in the Central Virginia area alone over the next two years. This valuable wood, which could be an asset and local material source for park and public projects, is instead generally treated as waste. This is primarily due to the lack of a clear alternative pathway for this material.

We will develop a workflow and educational literature through an initial proof-of-concept project in the form of a bicycle storage and work-station, built for the JMU Occupational Therapy Clinical Education Services (OTCES). This is a community program that the OTCES provides therapy to rebuild fine and gross motor skills for children who are recovering from trauma or overcoming disabilities. Their bicycle repair program allows the children to repair bicycles and then learn to ride. Both acts strengthening fine and gross motor skills. Currently there is no structure to hold the tools, provide shade, mount the bicycles, or sit comfortably to perform the work on bicycles at the appropriate dimensions for children. The designs for these new structures will use EAB-killed ash trees from surrounding Harrisonburg, provided and milled by the City of Harrisonburg Public Works.

This project will result in a built structure that will act as a model for future, larger scale public projects. Discussions with the City of Harrisonburg Public Works and Virginia Department of Forestry are ongoing and there are project sites that can support the future educational and community-based components of this research. Furthermore, the material sourcing and inventorying process will be recounted in literature that will be made widely available. The social and environmental dimensions of this project, combined with its educational components, make it well-suited for a wide range of collaborations and future growth between JMU and the local community.

Project Budget Amount: \$11,000

Personnel (3 x Spring Semesters): \$1,500
(3 Student Researchers)

Equipment (3 x Spring Semesters): \$3,500
(Heavy rental tools, mobile milling, excavation, etc)

Additional Supplies/Materials (3 x Semesters): \$5,500
(Sheet metal, protective coating, fasteners, paint, hardware, other parts, etc)

Publication/Printing/Website: \$500

Additional information to explain or expand on budgetary needs:

Locally milled lumber is the primary donated material for the project(s). Other materials or supplies, such as hardware, fasteners, structural elements, tools, equipment, and milling, are accounted for in equipment and additional supplies/materials, above.