# Innovative exhibition at V&A museum showcases sustainable timber design



The Guardian is reporting on a unique exhibition at the Victoria and Albert Museum in London, featuring the ecological design studio Material Cultures. The show, titled "Material Cultures: Woodland Goods," showcases innovative works that repurpose timber by using various parts of trees that are typically considered waste. The exhibition presents an alternative approach to industrial timber production, which is often characterised by significant waste.

Paloma Gormley, co-founder of Material Cultures, described their philosophy as akin to "nose-to-tail eating, but for trees,” emphasising the belief that every element of the tree—from bark to resins—holds potential value. The display includes a variety of items such as plywood stools with seats crafted from compressed bark, wall panels made from pine needles and sap, and sheets of silver birch bark adorned with moss, presenting a stark contrast to the polished furniture traditionally found in the museum.

Material Cultures was founded in 2019 by Gormley, along with Summer Islam and George Massoud, expressing a commitment to sourcing materials directly from nature rather than relying on synthetic products. Massoud noted the historical use of birch bark, stating, “Bark has been used by indigenous groups for hundreds if not thousands of years,” with applications ranging from roofing to the creation of canoes. The trio aims to explore how such materials can be applied effectively in modern architecture.

In collaboration with fabricator Erthly, the practice has developed techniques to enhance the natural characteristics of bark. By layering and heating it under pressure, they create sheets bound with natural resins. Some of these materials exhibit properties that could be advantageous for building use—such as a dense panel made from birch bark, which holds potential for durable exterior cladding, and a fluffy redwood bark sheet that offers insulation and fire-retardant qualities.

Material Cultures posits that re-establishing a connection between architecture and agriculture is essential to mitigating the substantial carbon emissions associated with the built environment. Gormley commented on the impact of industrialised building practices, highlighting a culture of negligence that detaches building from its environmental consequences. The design team advocates for localised and transparent supply chains, aiming for a bioregional approach that prioritises sustainable materials.

Their ethos is encapsulated in a manifesto titled "Material Reform," co-authored with Amica Dall in 2022, which lays out their vision for responsible building practices. One of their significant achievements includes the construction of three sustainable barns on a former council depot in Wood Green, north London. The project, costing £2.8 million and funded by the Mayor of London and the National Lottery, includes structures designed using lightweight timber frames and materials sourced locally, such as straw and clay, along with innovative methods like incorporating “strocks” made from unfired clay-rich earth.

Yvonne Field, founder of Ubele Initiative, which operates the community food hub established in one of the barns, noted the engaging nature of the project: “We had our members involved in everything from making the straw bales to bricklaying and clay plastering." This collaborative effort not only fosters community engagement but also promotes the acquisition of practical skills.

Moreover, Material Cultures has been involved in other community initiatives, such as at the seven-acre Pasteur Gardens, where they have built a cabin as a demonstration of ultra-low-carbon housing. The structure utilises light earth for insulation and is designed to be easily replicable for others interested in sustainable building practices.

The group's future plans include establishing a “land lab” on a former farm in Essex, which aims to integrate agricultural and building practices through educational workshops. Gormley expressed enthusiasm for creating a space dedicated to experimentation and knowledge-sharing around plant-based building techniques and regenerative agriculture.

Additionally, both Gormley and Massoud underscored the need for broader structural changes within the building industry, arguing that current systems are heavily influenced by petrochemical and cement industries that favour traditional building materials. The duo asserted that a shift towards natural materials, which emphasise repair and sustainability, is necessary to address the inherent failures of the existing construction model.

Through their innovative projects and community engagement efforts, Material Cultures seeks to redefine the relationship between architecture and nature, advocating for sustainable practices that reflect a deeper awareness of environmental impact and resource utilisation.

Source: [Noah Wire Services](https://www.noahwire.com)