

MATERIAL REUSE IN THE LANDSCAPE: THE FEASIBILITY OF REUSING WOOD IN LANDSCAPE CONSTRUCTION AND DESIGN

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1 ABSTRACT

Wood reuse is an effective technique for reducing human impact on the landscape and additionally has much untapped potential in bringing economic, environmental and cultural benefits to the field of landscape construction and design. Designers have a professional and ethical responsibility to address the challenges associated with conventional practices of landscape construction, such as the over reliance on specifying virgin building materials. Materials reuse, an essential component of the green building movement, offers an alternative method for landscape architects and designers to view materials in life cycles as opposed to single-life disposable products.

This study specifically examines whether reusing wood is a practical design tool for landscape architects and construction professionals compared to traditional applications using virgin wood products. The overall goal of this study is to gain experiential knowledge and produce tangible evidence through the physical construction of three common landscape items utilizing three common types of wood waste followed by a thorough review by landscape design and construction professionals. Each of the wood waste prototypes are measured against a comparable landscape product composed of virgin wood materials. All products are evaluated according to five design criteria: aesthetics, affordability, durability, efficiency and ecological impact. The study concludes that reused wood prototypes scored highly in all categories of design criteria in comparison to conventional virgin wood products; however, there are numerous issues that thwart mainstream application of reused materials in landscape construction and design, thus significant reform must take place within the construction industry for reuse to be widely accepted.

1.1 Keywords

material reuse, reclaimed wood, sustainable landscape construction, deconstruction