

## Experimental Exploration of Recycled Materials for Potential Application in Interior Design

**Authors :** E. P. Bhowmik, R. Singh

**Abstract :** Certain materials casually thrown away as by-product household waste, such as used tea leaves, used coffee remnants, eggshells, peanut husks, coconut coir, unwanted paper, and pencil shavings- have scope in the hidden properties that they offer as recyclable raw ingredients. This paper aims to explore and experiment with the sustainable potential of such disposed wastes, obtained from domestic and commercial backgrounds, that could otherwise contribute to the field of interior design if mass-collected and repurposed. Research has been conducted on available recorded methods of mass-collection, storage, and processing of such materials by certain brands, designers, and researchers, as well as the various application and angles possible with regards to re-usage. A questionnaire survey was carried out to understand the willingness of the demographics for efforts of the mass collection and their openness to such unconventional materials for interiors. An experiment was also conducted where the selected waste ingredients were used to create small samples that could be used as decorative panels. Comparisons were made for properties like color, smell, texture, relative durability, and weight- and accordingly, applications were suggested. The experiment, therefore, helped to propose to recycle of the common household as a potential surface finish for floors, walls, and ceilings, and even founding material for furniture and decor accessories such as pottery and lamp shades; for non-structural application in both residential and commercial interiors. Common by-product wastes often see their ends at landfills- laymen unaware of their sustainable possibilities dispose of them. However, processing these waste materials and repurposing them by incorporating them into interiors would serve as a sustainable alternative to ethical dilemmas in the construction of interior design/architecture elements.

**Keywords :** interior materials, mass-collection, sustainable, waste recycle

**Conference Title :** ICALID 2023 : International Conference on Architecture, Landscape and Interior Design

**Conference Location :** Singapore, Singapore

**Conference Dates :** July 03-04, 2023