Analyzing Sociocultural Factors Shaping Architects' Construction Material Choices: The Case of Jordan

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Abstract: The construction sector is considered a major consumer of materials that undergoes processes of extraction, processing, transportation, and maintaining when used in buildings. Several metrics have been devised to capture the environmental impact of the materials consumed during construction using lifecycle thinking. Rarely has the materiality of this sector been explored qualitatively and systemically. This paper aims to explore socio-cultural forces that drive the use of certain materials in the Jordanian construction industry, using practice theory as a heuristic method of analysis, more specifically Shove et al. three-element model. By conducting semi-structured interviews with architects, the results unravel contextually embedded routines when determining qualities of three materialities highlighted herein; stone, glass and spatial openness. The study highlights the inadequacy of only using efficiency as a quantitative metric of sustainable materials and argues for the need to link material consumption with socio-economic, cultural, and aesthetic driving forces. The operationalization of practice theory by tracing materials' lifetimes as they integrate with competencies and meanings captures dynamic engagements through the analyzed routines of actors in the construction practice. This study can offer policymakers better-nuanced representation to green this sector beyond efficiency rhetoric and quantitative metrics.

Keywords: architects' practices, construction materials, Jordan, practice theory

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