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# Architecture Cannibalization

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## ABSTRACT

This paper advances the concept of "architectural cannibalization" as a radical yet pragmatic response to the environmental crises confronting the contemporary construction industry. Grounded in the anthropological study of cannibalism—a practice historically vilified as barbaric and instrumentalized within colonial and racial power structures—the research reconfigures cannibalization as both a metaphor and a material strategy for sustainable architecture. It posits that urban environments, akin to living organisms, must develop the capacity to "digest" their own material legacies by systematically deconstructing obsolete structures and reappropriating their components, with a particular emphasis on the reuse of concrete and stone fragments. This cyclical process directly addresses construction waste and resource scarcity, while simultaneously preserving the cultural and historical memory embedded within salvaged materials. Drawing on precedents such as spolia and cyclopean masonry, the study explores how these historical practices of material reuse can inform contemporary design methodologies. Moreover, it examines the integration of advanced digital technologies, including 3D scanning and robotic fabrication, to facilitate the optimization of heterogeneous, reclaimed materials within new architectural forms. By synthesizing historical techniques and technological innovation, the concept of architectural cannibalization contributes a viable framework for achieving a closed-loop material economy and advancing sustainable urban development.

**Keywords:** circular economy; material reuse; spolia; sustainable cities; urban metabolism