

Exploring the Compatibility of The Rhizome and Complex Adaptive System (CAS) Theory as a Hybrid Urban Strategy Via Aggregation, Nonlinearity, and Flow

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Abstract : The compatibility of the Rhizome and Complex Adaptive system theory as a strategy within the urban context is the essential interest of this paper since there are only a few attempts to establish a hybrid, multi-scalar, and developable strategy based on the concept of the Rhizome and the CAS theory. This paper aims to establish a Rhizomic CAS strategy for different urban contexts by investigating the principles, characteristics, properties, and mechanisms of Rhizome and Complex Adaptive Systems. The research focused mainly on analyzing three properties: aggregation, non-linearity, and flow through the lens of Rhizome, Rhizomatization of CAS properties. The most intriguing result is that the principal and well-investigated characteristics of Complex Adaptive systems can be 'Rhizomatized' in two ways; highlighting commonalities between Rhizome and Complex Adaptive systems in addition to using Rhizome-related concepts. This paper attempts to emphasize the potency of the Rhizome as an apparently stochastic and barely anticipatable structure that can be developed to analyze cities of distinctive contexts for formulating better customized urban strategies.

Keywords : rhizome, complex adaptive system (CAS), system Theory, urban system, rhizomatic CAS, assemblage, human occupation impulses (HOI)

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