Three ways to stabilize polyhedra according to Chinese thought, Wester's work review

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Abstract

Previous work has hypothesized that Platonic solids and Chinese elements are two cultural expressions of the same system. In the light of the correspondences identified - geometric duality / yin-yang categories, in particular - this research has made it possible to characterize the polyhedral forms in architecture from a qualitative point of view, a structural one. But this previous step also allows a critical reading of T. Wester's researches - from the notion of "structural dualism" - and to make the hypothesis to consider not only 2 but 3 structural logics of stability of the basic polyhedra. Structural modes corresponding to dual geometric elements faces/vertices are the plates/pods and the mode tension rod / compression strut corresponds to the geometric element edge - self-dual. Analog models show how each structural mode alone can organize the indeformability.