

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

S. MONNOT

Environment-City-Society Lyon Architecture Urbanism REsearch (EVS-LAURE) of UMR 5600, CNRS  
Laboratory of National School of Architecture of Lyon (ENSAL)  
3 Rue Maurice Audin, 69120 Vaulx-en-Velin  
serge.monnot@lyon.archi.fr

### 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 *structurel* logics of stability of the basic polyhedra. *Structurel* 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 *structurel* mode alone can organize the indeformability.

