Outline of Ars Morphologica - Chapter 1

Conceptual Modelling, Combinatorial Heuristics and *Ars Inveniendi*

A brief History in four acts: Plato, Llull, Leibniz & Zwicky

Tom Ritchey

SYNOPSIS

(1) An introduction to the principles of conceptual modelling and combinatorial heuristics; (2) a brief history of conceptual spaces and blending theory, *ars inveniendi* and *ars demonstrandi*, and the two modes of analysis and synthesis; (3) Plato's notions of conceptual analysis, meta-hypothesis and "models" (*paradeigmata*); (4) Ramon Llull's introduction of concept analysis and combinatoric spaces; (5) Gottfried Leibniz's development of analysis and synthesis by combinatorics as a general modelling method and a paradigm for *ars inveniendi*; (6) Fritz Zwicky's revival of the morphological method of analysis and construction, and its computerised applications; (7) Outline of research for "Ars Morphologica", its Contents and Personae Dramatis.