

ART AS A COMPLEX SYSTEM AT THE EDGE OF ORDER AND CHAOS

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The aim of this paper is to show that an art is a self-organising system close to critical (unstable) states. The following aspects of self-organisation in artworks will be considered:

1. Criticality: different notions of instability, borrowed from natural sciences can be applied to different artworks and different kinds of art (Lyapunov instability in choreography and circus, Nash instability in entertaining genres (detectives, adventures, etc.), self-organised criticality in landscape painting, unstable (frustrated) interpersonal relations in plays by W. Shakespeare, etc.), It will be shown that great many artworks, including well-known masterpieces, exist near critical points or at critical point itself.
2. "Virtual phase transitions" and critical slowing down in artworks will be discussed using catastrophe theory concepts and methods (plot development in fables, "character invasion" in acting, "Pygmalion effect" in visual arts, music as a cultural phenomenon, etc.).
3. Rhythm and synchronisation in artworks (poetry, choreography, singing, etc.) and rhythmical nature of comic emotional reactions will also be considered.
4. Power law in artworks (fractals, long range correlation in human writings, self-similarity in pictorial arts and music) will be discussed.

References

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3. I. Yevin. Bimodality, Phase Transition, and Symmetry Breaking in Artworks, Symmetry: Culture and Science. 6(3) (1995) 549-552