

The current paper intends to clarify, refine and elaborate on the concept of the superpulse, a term coined by the author in the context of her dissertation (1993)*. The initial investigation revealed notable correspondences between the specific clock rates of periodicities in music and their functions within the musical structure. Besides the common and easily-understood denotations of pulse and subpulse, two other specific regions were identified. The range of periodicities below 100 milliseconds was identified as the ornamental / textural band; its properties have been elaborated elsewhere (Mountain, 1994, 1997) and will be reviewed briefly. The superpulse refers to the particular range of periodicities which fall generally within the 1500 to 6000 millisecond band. The paper aims to demonstrate that relevant perceptual and cognitive findings can help composers and analysts understand more fully the impact of musical events at that level.

The presentation outlines the various typical manifestations of superpulse, illustrated (in visual and audio format) with musical examples drawn especially from the 20th century and including electroacoustics. These manifestations range from simple pulse groupings (which frequently do not correspond with notated meter) to coexisting dissonant superpulses of multiple strata works, and reiterations of irregular or complex lower-level patterns such as gesture and texture. Implications of and for cognitive research are discussed with reference to specific circumstances. These include the potential ambiguity created when two levels of a metric hierarchy fall within the superpulse range, allowing the composer and performer to direct the listener's attention to different temporal foci (cf. Tenney, "Meta+Hodos", 1988); also the high level of apparent harshness which can result from a rhythmic dissonance between two coexisting but non-aligned superpulse trains. The idea discussed in the original investigation that pulse and superpulse are related to limb movement has been refined through the author's subsequent work (in press) in the area of auditory imagery, and is proposed as a means of informing the study of musical affect. Also addressed is the suggestion by Clarke ("Levels of Structure", 1987) that a musical performance will maintain the clock-time rate of the superpulse level more strictly than that of the lower (faster) rates.

* For more detail on references, please see webpage:
http://music.concordia.ca/music_faculty/rosemary/writings.htm