## Using Audio Windows to Analyze Music

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Alternative nonimmersive perspectives enable new paradigms of perception, especially in the context of frames-of-reference for musical audition and groupware. "maw," acronymic for multi-dimensional audio windows, is an application for manipulating sound sources and sinks in virtual rooms, featuring an exocentric graphical interface driving an egocentric audio backend. Listening to sound presented in such a spatial fashion is as different from conventional stereo mixes as sculpture is from painting. A schizophrenic existence suggests sonic (analytic) cubism, presenting multiple acoustic perspectives simultaneously. Clusters can be used to hierarchically group related mixels together. New interaction modalities are enabled by this sort of perceptual aggression and liquid perspective. In particular, virtual concerts may be "broken down" by individuals or groups.

