

## Variations on a Theme by Earle Brown

### Abstract

Earle Brown's *December 1952* is a composition characterised by the use of graphical elements in the score. Part of a 'search for a new notation', it is constructed of 31 rectangles or lines.

Earle Brown later imagined the piece as a sort of multi-dimensional orrery, a box in which the score's elements would be actualised and motorised, 'so that the vertical and horizontal elements would actually physically be moving in front of the pianist', who would interpret them as 'they approached..., crossed in front of..., and obscured each other. ... The performer [would play] very spontaneously, but still very closely connected to the physical movement of these objects...'

This paper describes the construction of such a system in software (and considers hardware implementations, but how metaphorical are Brown's words?) also allowing generative multiple automatic realisations, or variations, of the piece, live and in real-time, using common practice and augmented forms of notation.

Also included will be practical demonstrations of these variations, showing in more general terms how technology can help us to explore concepts of intuition, improvisation and performance, the mediating role of notation as semantic and graphic forms.