

ABSTRACT

Title of Dissertation: PLAY I[-III]

Kristian Mark Twombly, Doctor of Musical Arts, 2004

Dissertation Directed By: Professor Thomas DeLio
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Play I[-III] is a quadraphonic electroacoustic composition based upon a play of the same name by Gertrude Stein. In the original play, lines of spoken text are freely mixed with stage directions and character assignments. In typical Steinian fashion, the text most often consists of word play based on alliteration and repetition, though it occasionally veers toward intelligibility.

The occasional suggestion of intelligibility encountered throughout the text reminded me strongly of the behavior of chaotic strange attractors in mathematics, such as the Lorenz and Hénon attractors. These formulae seek to describe, mathematically, the behavior of weather in the atmosphere and the orbit of celestial bodies. Like Stein's use of language, these systems never quite reach a completely ordered "steady-state."

Calculations derived from both the Lorenz and Hénon attractors were used to determine many aspects of my composition, from the smallest detail to the larger form. For example, each recorded line of text was broken into collections of sentences, groups of words, individual words and phonemes. The Lorenz attractor was then utilized to choose what type of sound was heard, in what order, at what time, in which channel, by which speaker and, even, what nature of transformation was to be applied to each sound. Every sound and section in *Play I[-III]* was subjected to such treatment.

Stein's play features four characters: two male, two female. Additionally, there are nine lines of text that I chose to have read by a narrator. All of the source sounds in *Play I[-III]* were generated from recordings of the parts for each of these characters. The narrator is utilized to define formal boundaries. There are nine basic sections, the order of which was determined by calculations derived from the Lorenz attractor. While the narrator occupies a narrowly defined sonic space in the right rear channel, the other characters open a much larger area, both sonically and spatially.

Play I[-III] was composed utilizing the CSound sound synthesis software, as well as Sonic Foundry's ACID Pro and Sound Forge, Sound Hack, Wavewarp and the CDP software suite.

PLAY I[-III]

By

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