

UNIVERSITY OF CALIFORNIA
SANTA CRUZ

MY DISSERTATION

A dissertation submitted in partial satisfaction of the
requirements for the degree of

DOCTOR OF MUSICAL ARTS

in

ALGORITHMIC COMPOSITION

by

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To myself,

Perry H. Disdainful,

the only person worthy of my company.

Acknowledgments

I want to “thank” my committee, without whose ridiculous demands, I would have graduated so, so, very much faster.

Part I

Text

Chapter 1

Introduction - Overview, Poetics and Histories

Motion is a guiding principle in *Heave, Sway, Surge*, a musical composition for thirteen instruments.

Chapter 2

Chaos and Instabilty in Instrumental

Sound Production

2.1 Introduction

2.2 Organology: Instrumental Physics and Sound Spectra

2.2.1 Aerophones

2.2.1.1 Woodwinds

2.2.1.2 Brass

2.2.2 Chordophones

2.2.2.1 Bowed Strings

2.2.2.2 Plucked Strings

2.3 Chaos/Predictability

Chapter 3

Positions and Pressures and their Structuring in Time

Some text here.

Chapter 4

Towards a Generalized Prescriptive

Notation

Some text here.

Chapter 5

Surge - Design and Implementation

Some text here.

Part II

Appendices

Appendix A

Heave, Sway, Surge, a Composition for 13 Instruments

Appendix B

Surge Documentation