

EDGARD VARÈSE'S ECUATORIAL
A PITCH-CLASS SET ANALYSIS

by

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Submitted in Partial Fulfillment
of the
Requirements for the Degree

MASTER OF ARTS

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Rochester, New York

1983

ABSTRACT

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Unlike his contemporaries Berg, Schoenberg, Stravinsky and Webern, Varèse's music has not yet enjoyed an abundance of analytic studies using the methods of set theory. Yet the organization of pitch/pitch-class structure in Varèse's works is not so independent of the other atonal works of the early twentieth century that set theory does not provide an effective model for its musical analysis. This paper will use set theory in the analysis of the pitch/pitch-class content of Varèse's Ecuatorial (1934), for bass voice, four trumpets, four trombones, piano, organ, two ondes martenot, and percussion. To this end, the study uses Allen Forte's system of set-class labels, and the other concepts commonly used in the description of atonal music: equivalence under transposition and/or inversion, pitch-class invariance, similarity based on interval content and inclusion, complementation, and aggregate completion. The non-pitch elements and the role of the text are not treated in this study.

Three set-class properties appear to determine the pitch-class content of Ecuatorial: sets consisting of clusters with tritones measured away from its members, called "cluster/6"; sets consisting of cyclic intervals with half-steps appended to its members, called "cycle/1"; and the two all-interval tetrachords {0146} and {0137}. In conjunction with the recurrence of surface and "thematic" elements of the music, the relative presence or absence of a given property set articulates the large divisions of the work and their respective subdivisions (five main sections and eleven subsections).

In order to take into account the contributions which have already been made, Chapter 1 surveys three recent analytic studies on Varèse's music, by John Strawn, Robert Morgan, and Jonathan Bernard. Chapter 2 defines the analytical approach of the present study. Chapter 3 presents a Preliminary account of the surface detail of the work, followed by the analysis itself in Chapter 4.

A short score of Ecuatorial, prepared by the present author, is included in the Appendix. Additionally, a list of discrepancies among published versions and available manuscript sources is provided in the Appendix.

CONTENTS

CHAPTER 1: RECENT THEORETICAL WRITINGS ON THE MUSIC OF VARESE.....	1
John Strawn.....	1
Robert Morgan.....	6
Jonathan Bernard.....	10
CHAPTER 2: THE ANALYTIC METHOD.....	20
Preface: Explanation of Symbols.....	20
CHAPTER 3: PRELIMINARY ANALYSIS.....	30
CHAPTER 4: AN ANALYSIS OF <u>ECUATORIAL</u>	42
I. Instrumental Exposition.....	42
mm. 1-20.....	42
21-29.....	46
30-48.....	49
47-53.....	57
53-58.....	63
II. Vocal Exposition.....	65
mm. 59-79.....	65
79-90.....	69
91-124.....	72
III. Vocal Chant With Obscured Recall of Opening....	77
mm. 125-154.....	77
IV. Return and Concluding Motion.....	82
mm. 154-188.....	82
188-215.....	86
V. Coda.....	88
mm. 216-256.....	88
SUMMARY AND CONCLUSION.....	95
BIBLIOGRAPHY.....	98

APPENDICES

1. The Text of <u>Ecuatorial</u>	101
2. Score Accuracy in <u>Ecuatorial</u>	103
3. Short Score of <u>Ecuatorial</u>	109