Phantom Sun

Septet for Flute, Clarinet in Bb, Violin, Cello, and Percussion

by

Stephen LeRoy Mitton

A Thesis Presented in Partial Fulfillment
of the Requirements for the Degree
Master of Music

Approved April 2017 by the
Graduate Supervisory Committee:

James DeMars, Chair
Kay Norton
Rodney Rogers

ARIZONA STATE UNIVERSITY

May 2017
ABSTRACT

*Phantom Sun* is a ten-minute piece in three sections, and is composed for flute, clarinet in b-flat, violin, cello, and percussion. The three-part structure for this work is a representation of the atmospheric phenomenon after which the composition is named. A phantom sun, also called a parhelion or sundog, is a weather-related phenomenon caused by the horizontal refraction of sunlight in the upper atmosphere. This refraction creates the illusion of three suns above the horizon, and is often accompanied by a bright halo called the circumzenithal arc. The halo is caused by light bending at 22° as it passes through hexagonal ice crystals. Consequently, the numbers six and 22 are important figures, and have been encoded into this piece in various ways.

The first section, marked “With concentrated intensity,” is characterized by the juxtaposition of tonal ambiguity and tonal affirmation, as well as the use of polymetric counterpoint (often 7/8 against 4/4 or 7/8 against 3/4). The middle section, marked “Crystalline,” provides contrast in its use of unmetered sections and independent tempos. The refraction of light is represented in this movement by a 22-note row based on a hexachord (B-flat, F, C, G, A, E) introduced in measure 164 of the first section. The third section, marked “With frenetic energy,” begins without pause on an arresting entrance of the drums playing an additive rhythmic pattern. This pattern (5+7+9+1) amounts to 22 eighth-note pulses and informs much of the motivic and structural considerations for the remainder of the piece.
For my parents, who provided the initial inspiration for this piece,
and for my wife, Sara, who provides a constant source of inspiration in my life.
ACKNOWLEDGMENTS

The completion of this piece is made possible by

the wonderful support from all of my mentors at Arizona State University.

Special thanks are extended to James DeMars for his valuable insights over

the course of this project.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>INSTRUMENTATION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>v</td>
</tr>
</tbody>
</table>

### SECTION

1. **“WITH CONCENTRATED INTENSITY”**                                                                                                                            1

2. **“CRYSTALLINE”**                                                                                                                                                13

3. **“WITH FRENETIC ENERGY”**                                                                                                                                          20
INSTRUMENTATION

Flute
Clarinet in Bb
Violin
Cello

Percussion (three players):

1. Temple Blocks, Cymbal, Hi-Hat, Bongos, Sandpaper Blocks, Claves, Guiro, Tom-toms

2. Marimba

3. Vibraphone

Percussion Key:

Note:

The second section, marked "Crystalline" alternates between metered and unmetered music. All changes are clearly marked by rehearsal letters and are facilitated by cues from the conductor.
gradually become more active...
begin actively and gradually become more sparse...