1988

"Enantiodromia" by Jani Christou and an Original Composition, "Symphony No. 1".

Aristocles Carastathis

Louisiana State University and Agricultural & Mechanical College

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“Enantiodromia” by Jani Christou and an original composition, “Symphony No. 1”

Carastathis, Aristocles, D.M.A.

The Louisiana State University and Agricultural and Mechanical Col., 1988
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UMI
ENANTIODROMIA BY JANI CHRISTOU
AND
AN ORIGINAL COMPOSITION, SYMPHONY NO. 1

A Dissertation
Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Musical Arts

in
The School of Music

by
Aristocles Carastathis
B.A., University of Northern Iowa, 1981
M.M., University of Northern Iowa, 1983
May 1988
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TABLE OF CONTENTS

Acknowledgment ................................ ii
Table of Contents ................................ iii
List of Examples ................................ v
List of Figures ................................ vii
List of Charts ................................ viii
Glossary ........................................ ix
Abstract ......................................... x

PART ONE ......................................... 1

The Late Musical Style of Jani Christou and Analysis of the Composition Enantiodromia .. 1

I. Introduction ................................... 1
   A. Jani Christou and General Aspects of His Music .................. 1
   B. Terminology and Notation as they Appear in Christou's Late Works .......... 6

II. Enantiodromia for orchestra .................... 11
   A. Introduction ................................... 11
   B. Explanation of Notational Devices ................ 12
   C. Analysis ....................................... 22

III. Summary ...................................... 58

PART TWO ......................................... 60

Symphony no. 1 in three movements ............... 60
I. Instrumentation ................................ 61
II. First Movement ................................ 62
# LIST OF EXAMPLES

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example 1.</td>
<td>Area Marks.</td>
<td>13</td>
</tr>
<tr>
<td>Example 2.</td>
<td>Application of the Scatter Sign.</td>
<td>13</td>
</tr>
<tr>
<td>Example 3.</td>
<td>Application of the Synchronization Sign.</td>
<td>13</td>
</tr>
<tr>
<td>Example 4.</td>
<td>Application of the Stop Dead Sign.</td>
<td>14</td>
</tr>
<tr>
<td>Example 5a.</td>
<td>Duration Indicator of notes with vibrato.</td>
<td>15</td>
</tr>
<tr>
<td>Example 5b.</td>
<td>Duration Indicator of notes with vibrato and dynamic fluctuation.</td>
<td>15</td>
</tr>
<tr>
<td>Example 6.</td>
<td>Duration Indicator of fast repeated notes.</td>
<td>16</td>
</tr>
<tr>
<td>Example 7.</td>
<td>Duration Indicator of notes with tremolo.</td>
<td>16</td>
</tr>
<tr>
<td>Example 8.</td>
<td>Duration Indicator of random angular melodic lines.</td>
<td>16</td>
</tr>
<tr>
<td>Example 9.</td>
<td>Duration Indicator of trills.</td>
<td>17</td>
</tr>
<tr>
<td>Example 10.</td>
<td>Duration Indicator of sustained notes with crescendo.</td>
<td>17</td>
</tr>
<tr>
<td>Example 11.</td>
<td>Duration Indicator of a continuous improvisation.</td>
<td>17</td>
</tr>
<tr>
<td>Example 12.</td>
<td>Application of general notational specifications to selected patterns.</td>
<td>21</td>
</tr>
<tr>
<td>Example 13.</td>
<td>Same patterns executed by different instruments.</td>
<td>28</td>
</tr>
<tr>
<td>Example 14.</td>
<td>Comparison of selected patterns.</td>
<td>29</td>
</tr>
<tr>
<td>Example 15.</td>
<td>Highly active patterns.</td>
<td>31</td>
</tr>
<tr>
<td>Example 16.</td>
<td>Pattern 12/a.</td>
<td>31</td>
</tr>
<tr>
<td>Example 17.</td>
<td>Patterns 15/a and 15/b.</td>
<td>33</td>
</tr>
<tr>
<td>Example 18.</td>
<td>Pattern 4/a/i.</td>
<td>33</td>
</tr>
</tbody>
</table>
Example 19. The note A is approached by half-steps from above and below. ....... 36
Example 20. Continuous change of cluster root. ....... 37
Example 21. Pattern-6/a. ................. 41
Example 22. Pattern 10/a. ................. 42
Example 23. Unconventional playing on the piano. ....... 50
Example 24. Percussive effects on string instruments. ................. 50
Example 25. Unusual sound effects. ................. 50
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brackets</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Duration Indicator</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Pitch Indicator of one note only</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Pitch Indicator of the entire range of a cluster</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>Pitch Indicator of the entire range of an instrument</td>
<td>19</td>
</tr>
<tr>
<td>6</td>
<td>Pitch Indicator of extreme range in one direction only</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>Pitch Indicator of selected notes of a cluster</td>
<td>19</td>
</tr>
</tbody>
</table>
LIST OF CHARTS

<table>
<thead>
<tr>
<th>Chart</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chart 1</td>
<td>Dynamic Structure</td>
<td>25</td>
</tr>
<tr>
<td>Chart 2</td>
<td>Cluster Root Movement</td>
<td>38</td>
</tr>
<tr>
<td>Chart 3</td>
<td>Density Structure</td>
<td>44</td>
</tr>
<tr>
<td>Chart 4</td>
<td>Instrumental Timbre Change</td>
<td>49</td>
</tr>
<tr>
<td>Chart 5</td>
<td>The five registers of <em>Enantiodromia</em></td>
<td>51</td>
</tr>
<tr>
<td>Chart 6</td>
<td>Alternation of narrow and wide frequency range sections</td>
<td>53</td>
</tr>
<tr>
<td>Chart 7</td>
<td>Frequency Structure</td>
<td>55</td>
</tr>
</tbody>
</table>
GLOSSARY

Anaparastasis: Re-enactment. Christou used it as a title for 130 compositions which re-enact ancient rituals.

Enantiodromia: "Race against," or "race of opposites."

Epicycle: Title of one of Christou's compositions that pertains to the idea of the cycle.

Meta-music: Term that implies extension of music toward other realms of expression, as suggested by the prefix word "meta," meaning "after" or "beyond."

Metapraxis: Any action that goes beyond the normal manner of performance in a specific medium.

Mysterion: Mystery or ritual. Title of one of Christou's works from 1966, for soloists, choirs, actors, orchestra, and tape.

Oresteia: Incomplete opera by Christou basing its subject on the story of Orestes, the son of Agamemnon, king of Mycenae.

Patterns: Events of any action (musical or non-musical), used by Christou as primary material for the construction of a composition.

Praxis: Action. Christou considers praxis any action that stays within the boundaries of normal performance in a specific medium.

Psychoid: Pertaining to psyche (soul). The psychoid factor in Christou's works intensifies any already border line situation to further extremes in the same direction.

Synthetic Notation: Notation that provides information about an effect that is a result of a collective action of many individual parts.
This dissertation consists of two parts: an analysis of a composition entitled Enantiodromia by Greek composer Jani Christou as it relates to the general musical style of his late works, and an original composition by the author entitled Symphony No. 1 for full orchestra.

The purpose of Part One is to familiarize the reader with Christou's approach to composition, especially as it is evident in his late works. This part is divided into three chapters.

In the first chapter attention is given to the biographical background of the composer emphasizing the philosophical influences on his music and providing a chronological delineation of his style periods. In the second chapter specific terms used by the composer in his late period are introduced and concisely defined to enable the reader to understand the composer's compositional techniques. The third chapter is an analysis of the work Enantiodromia for orchestra, a representative composition of Christou's last and most mature period. The analysis includes an explanation of notational devices used in the composition and focuses on events called "patterns," which serve as the main structural components of this work. The analysis is based on the function of these patterns,
the dynamic and frequency range structure of the piece, the density and rhythmic content, and the interaction of instrumental colors.

Part Two of the dissertation is the author's original composition for full orchestra entitled Symphony No. 1 in three movements. The work finds its subject in the idea of "Cultural Dependency," a situation often observed in underprivileged nations as they become influenced by cultures of powerful nations. Many musical elements in this work express particular culture-shaping ideas, such as folklore, heroism, hope, struggle, and fear. Compositional techniques such as sound mass, pandiatonicism, atonality, modality, indeterminacy, pointillism, and sound effects are used to represent the aforementioned programmatic ideas.

Symphony No. 1 is scored for the following instruments: 1 piccolo, 2 flutes, 3 oboes, 2 clarinets, 2 bassoons, 4 french horns, 3 trumpets, 4 trombones, 1 tuba, 4 percussionists, harp, and strings.
PART ONE

The Late Musical Style of Jani Christou
and Analysis of the Composition ENANTIODROMIA

I. Introduction

A. Jani Christou and General Aspects of His Music

Jani Christou (1926-1970) stands out as a very important figure in the musical life of post-World War II Greece for his immense contributions as a composer and as an innovator of a distinct musical ideology. His pursuit of ideas about music composition and the integrity of his personal musical style have gained him respect in international music arenas and have placed him among the most important composers of his native Greece.

The purpose of this study is to acquaint the reader with the composer's personal music idiom and to analyze a major work entitled Enantiodromia for Orchestra. This work clearly illustrates most of the constituents of the composer's musical style during his last and most mature period. Many of his compositional techniques are evident in the work in question. Consideration is given to the exploration of the composer's general musical language, in particular, his distinct music vocabulary which is widely used in all of his late compositions. The extra-musical
factors such as his biographical background and his philosophical tendencies, are discussed in connection with this work. The non-traditional notation used in Enantiodromia requires an identification of specific terms and notational devices which are present throughout the piece.

Jani Christou was born in a suburb of Cairo on January 8, 1926. His brother Evangelos, a renowned psychoanalyst, had a tremendous impact on his personality and his music. Jani Christou studied at Victoria College in Alexandria until 1945. In 1948 he received a M.A. degree in philosophy from King's College in Cambridge, where he studied with Bertrand Russell and Ludwig Wittgenstein. From 1945 to 1948 he also studied composition with Hans Ferdinand Redlich at Letchworth, and orchestration with F. Lavagnino in Rome. Additionally, he attended two summer music courses at the Accademia Musicale Chigiana in Siena (1948 and 1949), and several psychology courses at the Jung Institute in Zurich. From 1960 he lived on the Greek island of Chios, and from about 1967 in Athens. He died in an automobile accident on January 8, 1970.

As a result of his association with Jung, his extensive involvement with philosophical studies, and the influence he received from his brother, Christou became a mystic in both his personal life and his musical creativity.
Besides philosophy and psychology, other factors that played a significant role in the development of his musical style were the study of prehistoric cultures, supernaturalism, eastern religion, and his concern with contemporary technological problems. Each composition dealt with a particular philosophical problem. Only after much introspection did the solution of such a problem yield a new composition. Such work was then completed in a very short period of time.

Christou's music may be divided into three periods characterized by a continuous evolution of artistic integrity. Although his late works are considerably divergent stylistically from his early ones, they nonetheless contain the same fundamental ingredients of his musical language.

While he began composing in 1943, his first important work was a free atonal piece titled Phoenix Music for orchestra (1948/49), which marks the beginning of his first period. In this early style (1948-1958) emphasis is placed on linear polyphonic constructions using intervallic motives of an extremely narrow range. Other major works from that period include the First Symphony (1951), the Latin Mass (1953), the Six Songs on Poems by T.S. Eliot (1955), and the Second Symphony (1958).
In his second period (1960-65), an expansion of serial techniques appears in the form of various rhythmic ostinatos forming compact polyphonic settings. These rhythmic ostinatos are the first manifestation of the composer's inclination towards what came to be the focus of his compositional concern in later years: the "patterns." His composition titled Patterns and Permutations for orchestra (1960) serves as a vivid example of his predilection for the term "pattern." Major works of the second period also include the Toccata for piano and orchestra (1962), music to Prometheus for chorus, orchestra and tape, and the oratorio Tongues of Fire (1965).

Christou's third and last period is the culmination of his musical aspirations. These aspirations were governed by a desire to fuse music with all forms of art, philosophy, and introspection. This period establishes his most distinct means of musical expression, which is conveyed in the form of events of extreme intensity controlled by philosophical, theatrical and psychological forces. During the last years of his compositional effort, new terms were introduced and new notational systems were incorporated. Although "patterns" were used in the works of the second period, it was during the last period that they were fully implemented. Indeed, they became the essential material of his compositions. The "patterns" represent ideas carried
out as complex systems of events both auditory and visual. Representative works from this period include an oratorio for soloists, three choirs, actors, orchestra and tape with the title Mysterion (1965/66), 130 Anaparastasis (1965/70), Praxis for 12 (1966), Epicycle (1968), Enantiodromia (1968) for orchestra, and an incomplete opera titled Oresteia (see glossary).

Christou was intrigued by the idea of the cycle as a determining factor of his musical form inasmuch as cyclical tendencies are found in all of his late works. The general characteristics of the cycle are established by a gradual crescendo from silence to an enormous climax. This climax is very often succeeded by further outbursts of sound which are beyond toleration, only to suddenly fall to an ineffable nothing. It is suggested that the end of a composition may be considered as a new beginning for a continuous, infinite cycle. Christou's preoccupation with the idea of the cycle takes on ironic overtones when we consider that his life both began and ended on the same date, January 8. His cyclical forms are much like the life cycle of Phoenix, the legendary bird that is perpetually resurrected from its own ashes, slowly reaches great glory, and burns itself to ashes, only to be resurrected again.
Enantiodromia makes extensive use of unusual notational devices, terms, and specific compositional techniques which are representative of Chistou's late musical style, the reason for the choice of this particular piece for analysis. A concise definition of these terms, devices and techniques is essential not only for a realistic analysis of this work, but also for a general understanding of the composer's music.

B. Terminology and Notation as they Appear in Christou's Late Works

The following terms have been classified and exemplified by Yiannis Papaioannou in the leaflet of the sound recording Jani Christou Late Works, EMI 14C063-70030, 1974. The aforementioned source is the only one available that includes precise information on the specific compositional techniques of Jani Christou. It is my intention to define these terms according to my own conception. A drastic deviation, however, from the composer's definitions as cataloged by Papaioannou could possibly result in a misinterpretation of Christou's ideas.

Meta-music: The term freely interpreted means "beyond music" or "after music." The composer's profound concern

1. Yiannis Papaioannou is a well known musicologist and an authority on Greek contemporary music. He maintains a music library at his home in Athens which consists of an impressive number of scores by Greek composers.
with philosophical and psychological ideas dictates an integrated, ritualistic, broad conception of music, incorporating other arts such as theater, poetry, film, dance, to mention a few. In distinction from the multimedia approach, meta-music is a "broader art synthesis that envelops the listener-spectator from all sides, and sets him into vibration with unusual intensity through all his senses and his intuition." While multimedia can be a combination of artistic expressions conceived and realized at different times and even by different artists, meta-music requires the contemporaneous creation and simultaneous performance of all aspects of the work. The ritualistic nature of such compositions becomes evident in performance which encourages audience "participation" to such an extent that the work acquires a ceremonial quality. Furthermore, the composer does not specify an exact location for the performance of the music. It can take place in any natural or artificially constructed surroundings. The most important factor in the performance of a work is the intense ritualistic involvement of both performers and audience.

**Patterns:** These are any active or static system of events, either musical or non-musical, executed by a

group of performers, and they serve as functional material of a composition (much like melodies and harmonies in conventional music). The "patterns" have their own distinct qualities and can be either auditive, visual, psychological or philosophical (such as movement on stage or participation in a meditative act). The cataloging of the patterns provided the composer with a collection of preconstructed compositional ideas with which he could build an entire composition. This type of material served the composer as a shorthand technique enabling him to complete a composition in a very limited time after its initial conception. Although the patterns had an autonomy of their own and they could exist independently, they were considered inactive by Christou; they could only acquire an organic function when they became part of a complete composition. The development of these complex individual events, called patterns, were used in a way similar to how melodies and harmonies are used in a conventional composition.

**Synthetic Notation:** With this term the composer denotes the use of a graphic or pictorial representation of the music. Many of the patterns cannot be effectively notated in traditional notational systems without becoming extremely complicated. Other events, such as human screams, noises, electronic sounds, cannot be conventionally notated at all. The synthetic notation was a necessity and consisted
of drawings, instructions to performers, and illustrations, along with traditional musical markings, all following a consistent set of general rules in a way so that performers and conductor could instantly recognize their function. It provided a picture of the collective overall result of many sounds and other types of action instead of showing the individual parts of each performer. The greatest advantage of this system was that an entire composition could be written down in a sketch form by the composer in a very short time, while the realization of the final score and the individual parts was a mere copyist's task. It also provided the conductor with a clear macroscopic picture of all the interacting parts as a whole in a score of a reasonable size.

**Metapraxis-Praxis:** These two terms are defined in Christou's own words: "Any action which requires its performer to go beyond the current logic of the medium to which he belongs is a 'metapraxis,' and it is purposefully 'non-characteristic' [of that medium]. Conversely, any action which does conform with the current logic of that medium is a 'praxis' as long as it is purposefully 'characteristic'." For instance, a pianist who plays the piano performs a praxis. When the pianist

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starts acting, crawling, jumping, or, in general, engages in any activity that is unrelated to his instrument, he performs a metapraxis. Metapraxis is a result of an uncontrolled desire to go beyond the normal boundaries of performing in a specific medium. For Chistou metapraxis invariably occurred as an extension of tremendous climaxes. Metapraxis was featured in all of his late works, and is symbolized by the letter $M$. Another symbol that usually appears in conjunction with a metapraxis is the greek letter $\psi$ (psi), and it is described as a "psychoid factor." The psychoid factor controls the psychological aspect of a particular moment in the music. When used, it intensifies any borderline state to further extremes in the same direction. For example, an already loud passage becomes deafening when the sign $\psi$ is applied to it.
II. **Enantiodromia** for Orchestra

A. Introduction

In literal translation, the title means "Race against" or "Race of opposites" from the words "Enantio" meaning against or opposite, and the word "Dromia" meaning race. The composer himself relates the title to Heraclitus' concept of the play of opposites, that is "a constant transformation of opposites in an eternal flux--in a sense that any condition and its opposite are the same, only at different stages of oscillation." ⁴

**Enantiodromia** is scored for 2 piccolos, 4 flutes, 3 oboes, 3 clarinets, 4 horns, 4 trumpets, 4 trombones, 1 tuba, 8 first violins, 8 second violins, 8 third violins, 8 violas, 8 cellos, 6 double basses, 1 amplified grand piano, and 2 sets of percussion with three performers each, plus an amplified "explosive section" of three performers operating large amplified percussion instruments. It was completed in 1968 and premiered on February 18, 1969, in Oakland, California, by the Oakland Symphony Orchestra, conducted by Gerhard Samuel. The approximate length of the piece is fifteen minutes.

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⁴. Ibid.
B. Explanation of Notational Devices

**Enantiodromia** is primarily based on recurring events called "patterns" each with its own distinct characteristics. The patterns are numbered in the score and are presented in a space-time synthetic notation. Although at first this type of notation may appear difficult to interpret, it does provide quite detailed information about the manner of execution for a particular event. One only needs to know the general specifications of a pattern such as entry point, pitch, duration, dynamic level, and a pictorial representation of the desired result in order to get an accurate grasp of its notation. All the characteristics of an event are indicated on the score by the use of a number of symbols and signs. The general characteristics of the symbols and signs are explained and labeled in the score according to Christou's specifications. They fall into the following categories:

1. **Traffic Signs:**

   They determine the organization and movement of both individual and collective forces. There are four such signs:

   a. **Area Mark:** Indicates the beginning and the duration of an area. It is the equivalent of a cue aiding the conductor.
b. **Scatter Sign**: Indicates that each member of the group performing the same pattern takes liberties in its execution in such a way that an overall effect of constantly shifting random relationships is created.

c. **Synchronization Sign**: Indicates that all members of the group performing the same pattern synchronize their playing.
d. **Stop Dead Sign:** Indicates that the performing group or the individual performer must achieve a complete and abrupt stop without any residual sound.

Ex. 4 Application of the Stop Dead Sign.

2. **Continuity Signs:**
These signs provide information about the "unfolding" of a pattern, whether it is repeated, permutated or unchanged. There are two such signs in **Enantiodromia**:

a. **Brackets:** They enclose an event and they are followed by a "duration indicator."

![Fig. 1. Brackets.]

b. **Duration Indicators:** They are horizontal lines of any thickness. They express duration in seconds and
they may be combined with either repeated or non-repeated patterns.

\[ \text{Fig. 2. Duration Indicators.} \]

There are several variations of duration indicators, and they are presented pictorially. They have a general horizontal direction from left to right and may be categorized as follows:

i. Sustained note with vibrato.

\[ \text{Ex. 5a. Duration indicator of a note with vibrato.} \]

\[ \text{Ex. 5b. Duration indicator of a note with vibrato and dynamic fluctuation.} \]
ii. Fast repeated notes, such as tremolo in the strings or flutter-tongue in the woodwinds.

Ex. 6. Duration indicator of fast repeated notes.

iii. Tremolo with changing pitches.

Ex. 7. Duration indicator of notes with tremolo.

iv. An erratic line of changing pitches.

Ex. 8. Duration indicator of random angular melodic lines.
v. A trill.

![Ex. 9. Duration indicator of trills.](image)

vi. Sustained notes with crescendo.

![Ex. 10. Duration indicator of sustained notes with crescendo.](image)

vii. Continuous improvisation

![Ex. 11. Duration indicator of a continuous improvisation.](image)

3. **Pitch Indicators:**

There are also pitch indicators that are followed by various symbols. The symbols indicate how the pitches operate
in any particular pattern. The following pitch symbols are found in the piece:

a. 

Fig. 3. Pitch indicator of one note only.
The pitch indicator of figure 3 requires each player to perform a particular pattern on only one note within the range of the cluster indicated by the vertical sign.

b. 

Fig. 4. Pitch indicator of the entire range of a cluster.
The pitch indicator of figure 4 requires each player to keep performing a particular pattern on the entire range indicated by the vertical arrow.

Variations on the same principle appear in the following forms:
The pitch indicator of figure 5 requires each player to perform a particular pattern using a very wide range, including the outer limits of the range of the instrument.

The pitch indicator of figure 6 requires the players to include in their playing the extreme registers of their instruments in one direction only (high or low).

Fig. 7. Pitch indicator of selected notes of a cluster.
Figure 7 shows a pitch indicator of selected notes of a cluster. This is a combination of a and b. Each player performs a particular pattern using more than one note of the cluster indicated by the vertical sign, but not all of them.

The range of the piano is divided to four pitch areas and are labeled SATB. Pictorial notation is used to indicate the use of the hands or other objects, such as a heavy ruler and a cup on the strings of the piano. This notation consists of specific drawings that show the performer how to execute a particular pattern.

The symbol \( \mathcal{M} \) is used to indicate the beginning of a metapraxis. The psychoid factor \( \psi \) is applied in order to enhance an already intense situation to further extremes.

By applying the general specifications of the notation to any pattern found in *Enantiodromia*, one should have a clear understanding of the desirable resulting sound. Let us consider example 12.

1. Pattern 6/a is interpreted as follows: Each player performs a tremolo (tremolo sign) throughout the range between C# and E (vertical arrow) starting at random time intervals (scatter sign) for 14 seconds (between area mark 57 and 60).
2. Pattern 5/a indicates that each player will perform throughout the range between A and D using harmonics (diamond shapes) in short, irregularly interrupted sustained notes (horizontal lines). The players may enter and exit at will.

Ex. 12. Application of general notational specifications to selected patterns.

3. Pattern 5/b is a variation of 5/a. The only characteristic that changes is that, instead of sustained notes, the players play short repeated ones.
4. Pattern 4/b/ii indicates that each player performs only one note from the cluster E-F# (horizontal arrows) with vibrato (wave like line).

5. Pattern 10/a indicates that each player performs only one note from the cluster E-F# repeating as fast as possible in groups of 2, 3, 4 and 5 notes in a scattered fashion.

The dynamic level for all these patterns (since there are no individual dynamics specified) comply with the "basic dynamic" (B.D.) which appears as the lowest part on the score.

C. Analysis

Enantiodromia was composed using patterns, which have been described as events of any type of action of a distinct identity. The idea of a small musical unit (motive or cell) is not new. It appears in the music of many twentieth-century composers, and Christou was obviously influenced by such composers in the development of his style. What makes Christou's use of patterns different is that they are not just simple musical ideas, which is the case with some avant-garde music, but a complex system
of diverse types of action (musical, theatrical). The structural analysis of the piece will be based on how these patterns function, evolve, combine and interact with each other. The patterns in the analysis are viewed as primary complete units, cells or ideas. Other important factors to be considered in the analysis of the composition are notation, density, cluster structure, rhythmic content, frequency range, and instrumental color.

The piece is written in space-time notation and it is organized in "areas," which are numbered 1, 2, 3, and so forth. There are 119 areas and all but area 116 have an indicated duration expressed in seconds. The duration of each area varies. There is a variety of unusual notational symbols such as the psychoid factor (ψ) and the symbol for the metapraxis (M). Pictorial notation is used to indicate movement on stage, explosive effects and unconventional playing of the piano. Dynamics are usually part of individual patterns. Where no dynamic marking is specified the pattern complies with the "basic dynamic" (B.D.) that controls the entire piece.

Enantiodromia is composed in four cycles with the form of the piece mainly determined by its dynamics. The first cycle starts from an extremely soft sound, almost non-existent (area 1), which rises very slowly to a climactic "fff" at area 62. The second cycle begins at
area 63 very quietly, much like the very beginning of the piece. A fast crescendo follows and reaches "fff" at area 68. At area 69 the psychoid factor (ψ) is applied to indicate further volume increase until area 70, where the volume level returns to the previous "fff". The music continues at that level until area 81 which is the last area of the second cycle. Area 82 marks the beginning of the third cycle at an almost inaudible volume level. A quick crescendo brings the dynamic level to "ffff" at area 91 and this level is maintained until the end of the cycle at area 117. At area 118 the fourth and last cycle of the piece starts from virtual silence and never exceeds an almost inaudible volume level. The psychoid factor in area 119 indicates that the existing silence has to be intensified to a silence of an even greater degree.

Chart 1 depicts the overall dynamic structure of the piece graphically and in real-time measurements. Area marks are shown at the beginning of each cycle and at other important sections.

While the four cycles have a similar dynamic contour they are not the same. Each starts with a crescendo which reaches a climactic point but the cycles, however, have climaxes of different intensity, and are also reached at different speeds. The first cycle (six minutes and thirty-five seconds long) is considerably longer than any other
Chart 1. Dynamic Structure.
cycle. It also takes longer to build up to a climax than any other cycle. One may see this cycle as divided in two parts with the first part ending at area 26 after a crescendo to "f" and decrescendo to "0". It should be noted that an attempt to consider this as the first cycle would be unjustified due to the fact that the climax is neither very intense nor is it followed by an abrupt cut-off. The crescendo and decrescendo found between areas 21 and 26 in the violas and the cellos is not a climax, but merely a "wave" or "pulse" in anticipation of a further climax. Another such pulse of lesser magnitude appears between areas 10 and 12 in the same instruments.

The second cycle begins at a slightly louder dynamic level (ppp) than the first cycle and reaches a maximum volume level much faster. With the addition of the psychoid factor at area 69 the volume level reaches extremes. This point is the loudest in the entire piece and creates an immense climax. The loud section of the second cycle lasts more than one minute and thirty seconds, as opposed to the loud section of the first cycle which lasts only an instant (area 62).

The third cycle has a similar beginning to the second cycle. Once it reaches the maximum volume level it maintains that level for two minutes and twenty seconds, longer than the loud section of the second cycle.
The fourth cycle is an epilogue that never evolves to a full climax. Instead, it brings the piece to an end quite similar to the beginning of the composition. In this manner the entire cycle of the composition is completed.

We have observed that all of the cycles have similar beginnings but different continuations in terms of dynamics. Furthermore, each new cycle is an expansion of the previous cycle in both duration and intensity of the climax. The fourth cycle does not comply with this general rule but has its own importance by completing the entire cycle of the piece.

*Enantiodromia* is based on a textural transformation idea. The texture appears as a pitch mass which contains both semitones and microtones. The transformation of the texture results from the superposition and combination of the various patterns. Some patterns may be executed by diverse groups of instruments leading to a coloristic transformation of the texture of the piece. For instance, Patt.1/a is executed by all the groups of violins (areas 1, 2, 3), violas (area 49) and cellos (area 50). Also, Patt.4/a/iii is executed by the flutes at area 24 and the piccolos at area 66 (ex.13). The same pattern, however, can be shared by instruments of the same family (strings, woodwinds, brass, percussion). Other patterns are performed
exclusively by a particular group of instruments. For example, Patt.14 appears only in the trumpets.

Ex. 13. Same patterns executed by different instruments.

Almost all of the patterns carry a number, and patterns with different numbers may or may not be related directly. For example, Patt.1 is entirely different from Patt.2, but Patt.8/b and Patt.9/b (area 69) share similar forms. In this case they use a number and a letter. If a pattern is a further variation of another pattern which carries a number and a letter, then a Roman numeral is added to the pattern. Consider the comparison of the patterns of example 14. All of the patterns have the same pitch indicators. Patt.4/a/i and Patt.4/a/ii have the same pitch indicators but different dynamics. Patt.4/b/i and Patt.4/b/ii have the same pitch indicators as the previous patterns, but they also have vibrato indicated. In addition, Patt.4/b/i involves a crescendo and decrescendo, something that Patt.4/b/ii lacks. The origination of a particular pattern can be easily determined simply by observing its number, letter, and numeral.

The energy level of the piece is defined by the rhythmic complexity of the various patterns. At the beginning of the piece, a sound mass is formed only by
sustained short notes at a very high pitch (Patt.1/a). With the introduction of Patt.3/a at area 5 and Patt.5/a at area 7, the sound mass becomes more active, since pitch changes are also involved.

At area 15, Patt.6/a increases the energy of the sound mass with the introduction of tremolos on various changing pitches. When Patt.6/a is adopted by all violin sections, the rhythmic activity of the piece increases, especially when it appears in succession with Patt.5/b (areas 15 to 44). With the entrance of Patt.10/a at areas 44 and 45, the intensity of the piece is enhanced. Between areas 49 and 62, there is a recycling of previously used patterns, especially the ones that contain high energy. In this section the energy level of the piece is gradually increased to create a climax. This first climax of the piece is reinforced by the addition of Patt.14 in the trumpets and Patt.11/a in the first and second violins.

At the beginning of the second cycle (area 63), the crescendo is rapid and so is the increase of the activity level of the patterns. Highly active patterns, such as Patt.10/a, Patt.5/a and Patt.6/a succeed one another in close proximities. Area 69 is dominated by the very active Patt.8/a, Patt.8/b, and Patt.9/a (ex. 15). The entire orchestra plays at a deafening volume level (dictated by the psychoid factor). Area 69 also signals the appearance
of a metapraxis for the first time in the piece. It is acted out by the conductor, who performs Patt. 29 by slowly raising his right arm to a forty-five degree angle and then lowering it very quickly to its original position. Every time a metapraxis takes place, the rhythmic activity of the piece is increased. A very rhythmic Patt. 12/a (ex. 16) starts at area 70 in the violas and violoncellos, while the first violins perform a metapraxis at area 71. At area 76 the piece has become very active with the addition of Patt. 16/a and even more active at area 77 with the addition of patterns played by both percussion and brass instruments. The rhythmic complexity culminates with all the string players participating in a metapraxis at area 81. The metapraxis is carried out in the form of shouting numbers. In this cycle we see a gradual escalation of the energy of the piece illustrated by the use of active patterns and sections of metapraxis.

Ex. 15. Highly active patterns.

Ex. 16. Pattern 12/a.
In the third cycle an explosive Patt.28 is spaced out in equal time intervals of twenty-four seconds each, between areas 82 and 104. Between areas 86 and 89 the energy level increases with the massive patterns 15/a, and 15/b (ex. 17) performed by all the string players. The patterns 17/a and 17/b, besides being very loud and having extremely wide range, also include strong accents until area 95. Between areas 96 and 99, an even stronger effect is achieved with Patt.19/b in the trumpets, Patt.6/b in the piano, the metapraxis in the violins (shouting), and the explosive Patt.28. Starting at area 95 there is a general upgrading of rhythmic complexity with the entire orchestra executing highly active patterns. The patterns feature steep crescendos, tremolos (Patt.22/a), fast changing notes (Patt.26, Patt.21/a, Patt.12/b, Patt.15/c/i, Patt.18), all at high volume, until area 117 where a sudden cut-off of the sound takes place. Area 116 displays the greatest activity concentration in this cycle with the entire orchestra being involved in a general metapraxis. The metapraxis has the characteristics of a frantic mob movement. The duration of this area is left to the discretion of the conductor. The psychoid factor is used in order to indicate an absolute lack of order in the behavior of the performers. The rhythmic activity reaches maximum when an accelerando takes place (circular notation) at the end
of the area. This is a moment of complete panic and emotional turmoil.

Ex. 17. Patterns 15/a and 15/b.

The fourth and last cycle (area 118) is very soft and the energy level very low. The conductor has already started a silent metapraxis (arm movement, Patt.29) at area 117. The volume level is that of a residual sound—a reverberation—of the instruments that just finished their playing. The appearance of Patt.4/a/i (ex. 18) in the third violins (area 119), which was also found at the very beginning of the piece, enhances the completion of a greater cycle, the entire composition. Enantiodromia ends with fifteen seconds of silence, while the psychoid factor is applied in order to imply a transcendental quality to these last fifteen seconds.

Ex. 18. Pattern 4/a/i.

In terms of rhythmic content, Enantiodromia follows a clear cyclical design. The first cycle, from area 1
to area 62, is characterized by a slow rise of activity in the patterns. The second cycle reaches a very active level quickly (areas 63 to 81) and stays active for a limited amount of time. The greatest amount of activity occurs during the third cycle, and it also lasts for a longer period of time than the second. The fourth cycle simply never reaches any considerable amount of activity, and could very well be considered as a new beginning for a continuous cycle. It should be noted that the rhythmic activity is greatly intensified by both the involvement of a metapraxis and the application of the psychoid factor.

There are certain "melodic" (horizontal pitch succession) implications in Enantiodromia. These are not melodies in a traditional sense, but rather points of specific pitch dominance. These focal points are delivered by either a single instrument (piccolo at areas 27 and 31), or by a group of instruments playing in unison (Patt.2). The succession of such pitches does not really form a melodic line, but it functions as a means of focusing a particular cluster towards a specific pitch.

Enantiodromia is dominated by sound clusters and microtonal effects. Although the piece cannot be analyzed in terms of harmony and melody, there are some indications that the movement of the clusters follows a premeditated scheme. In contrast to the traditional means of determining
the root of a vertical sonority, I chose to use the term "root" merely to indicate the lowest note of a given cluster. That low note defines the "pitch area" of the cluster. The study of the "root movement" of the clusters does not intend to portray any harmonic progression, but rather reveal the overall pitch area structure of the piece.

Between areas 1 and 5 the root of the cluster is \(E\). Patt.2 focuses on the root \(E\) by the synchronized playing of the violas. At area 8 the pitch \(A\) in Patt.5/a is exposed as the lowest pitch of the cluster after the interruption of all the other patterns. For a brief time (nine seconds) the root is \(A\) until \(E\) is re-established at area 10 with Patt.4/b/i in the cellos and violas. With the introduction of Patt.6/a at area 15, the root of the cluster becomes \(C\#\) until area 29, where the root is again \(E\) as dictated by Patt.3/a in the first violins and Patt.4/a/ii in the violas. At area 35 \(A\) is the root of the cluster for twenty seconds until area 39. It is found in the Patt.5/c in the cellos. At area 39, Patt.6/a in the cellos establishes \(C\#\) as the root of the cluster. At area 46 the root is \(E\) (Patt.8/c in the flutes, Patt.10/a in the first violins) until area 70. Between areas 46 and 70, there are several instances where other pitches have the tendency to become roots of the clusters. For example, at area 57 \(C\#\) is the lowest note of the cluster (Patt.6/a in the first violins).
At area 62, Patt.14 brings out G♯ as the lowest note, and at areas 64 and 66, the A in the piano part is the lowest note. These pitches, however, are considered secondary to the pervading E, due to their short duration. At areas 64 and 66, the note A in the piano creates a degree of ambiguity since it carries a very loud dynamic marking (sfffsz). Similarly, between areas 82 and 84 the pitch A in the piano, french horns and trombones is very strong, but it exists in the midst of an E dominance (strings, flutes, piccolos). In these areas (64-66 and 82-84), the root fluctuates between E and A. Furthermore, the importance of the pitch A is enhanced by the pitches G♯ and B♭ found in the trumpets at area 62 (Patt.14), if we consider the fact that they converge to the note A in the piano at area 64 (ex. 19). This kind of approach to A by half-steps from above and below has strong tonal implications.

At area 70 the root is C♯, while beginning with area 76 and continuing through area 81 the root is obscured by Patt.16. The pitch E, however, is still considered the root of the cluster (Patt.9/a).

Ex. 19. The note A is approached by half-steps from above and below.
At area 82 the root is $E$ (Patt.4/a/ii). A reference to $A$ is made at area 83 in the piano. At area 84 the root of the cluster is $C\#$, found in the strings (Patt.12/a), until area 86 where it becomes $E$ (Patt. 15/a). The cluster between $G\#$ and $Bb$ of patt.15/c/i at area 105 "resolves" to $A$ in the tuba at area 108 (Patt.10/c). At area 110 the $E$ in the tuba (Patt.10/c) and the strings (Patt.13/a) is the root of the cluster. At area 113 the emphasis is placed on $C$ (Patt.10/c). The importance of these pitches, however, is questioned between areas 98 and 116 because of Patt.18 and Patt.20. These patterns indicate a succession of pitches that cover the entire range of the double basses, and in essence the low note changes continuously (ex. 20).

At the end of area 116 and through area 117, $E$ becomes important in the woodwinds (Patt.21/b, Patt.13/c) and the strings (Patt.9/a, Patt.4/b/ii). $E$ also dominates the end of the composition at area 119 in the strings (Patt.7/b and Patt.4/a/i). Chart 2 depicts the overall cluster root movement as it is related to the four cycles of the piece. It is noted that roots in parentheses are very weak due to their short duration. Therefore, their tonal impact is minimal.

Ex. 20. Continuous change of cluster root.
Chart 2. Cluster Root Movement.
The clusters are built on pitches that follow an almost regular design. In the first cycle (areas 1 to 62), the predominant pitches are E, C#, and A. They appear in the following order:

\[ E \quad C# \quad E \quad A \quad C# \quad E \]

Each individual pitch area lasts a considerable amount of time (see chart 2), with the E pitch area lasting the longest.

In the second cycle (areas 63 to 81), the same pitches prevail and they appear in the following order:

\[ EA \quad C# \quad E \]

In this cycle the EA pitch area lasts the longest.

In the third cycle (areas 82 to 117), the pitch areas succeed one another at a faster rate than in any of the previous cycles. The pitch area built on E dominates throughout this cycle, in spite of the ambiguity that is created between areas 86 and 113. The overall pitch area design of the third cycle is:

\[ EA \quad C# \quad EAC \quad E \]
The fourth cycle is entirely built on the pitch area E.

\[ \text{E} \quad \text{E} \]

It is apparent that all four cycles have similar general characteristics in terms of pitch area structure. All cycles begin and end with a pitch area built on E. Furthermore, the secondary pitch areas revolve around the notes A and C#. These three pitches outline an A major chord, while the presence of the pitch Cb signifies the inclusion of bi-modal properties in the piece.

An overview of the pitch areas of the entire piece indicates the following almost palindromic design:

\[ \text{E} \quad \text{C}^\# \quad \text{E} \quad \text{ACb} \quad \text{C}^\# \quad \text{E} \quad \text{C}^\# \quad \text{E} \quad \text{C}^\# \quad \text{E} \]

Notably, if the ACb pitch area was absent the palindrome would have been exact.

It is interesting that, in a composition which undoubtedly lacks tonality, there is such a strong evidence of tonal and modal interplay. This is perhaps an indication of the intuitive process taking place in the composer's mind that guided Christou in his effort to fuse practices of the past with concerns of modern times.
The density fluctuation of Enantiodromia is very closely related to the dynamic changes of the piece. From area 1 to area 4, the sound cluster is quite compact, but relatively thin. It is mainly comprised of high pitch sustained notes in the violins (Patt.1/a). Between areas 4 and 14, there is a slow gradual thickening of the sound by the addition of Patt.2 and Patt.4/a/i. The change is not very drastic, and the instruments involved are limited to violins, violas and cellos. Between areas 15 and 28, Patt.6/a in the violins (ex. 21) is prominent, and it increases the density of the piece. At area 24 the texture becomes thicker with the entrance of the flutes, followed by the piccolos at area 27.


There is a further gradual density surge with Patt.10/a in the violins (ex. 22) at areas 44, 45, and 46. With the addition of the flutes playing in four parts at area 46 (Patt.8/c), and the introduction of the trumpets at area 62 (Patt.14), the density reaches a higher level. This is the most compact area of the entire first cycle. There is a general slow increase of the density in this
cycle, and it mainly comes from the addition of instruments and the progressive involvement of intricate rhythmic patterns.

Ex. 22. Pattern 10/a.

The beginning of the second cycle (area 63) is thin, but it quickly re-establishes its previous density with the entrance of the flutes (Patt.4/a/ii) at area 65, the piccolos (Patt.4/a/ii) at area 66, and the oboes (Patt.1/b) at area 67. At area 69 the clarinets add thickness to the density with Patt.1/b. With the beginning of the metapraxis in the strings at area 70, the texture is very thick, and becomes even thicker with the introduction of the two percussion groups and the horns at area 77, the trombones (Patt.10/b) at area 78, and the trumpets (Patt.14) at area 79. The cycle ends with the explosive Patt.28, which represents the greatest amount of density of this cycle. The overall density of the second cycle involves a rapid increase of sound, and it is considerably greater than that of the first cycle.

The third cycle of the piece, which starts at area 82, is extremely dense. The basic background sound is
provided by the strings and the woodwinds, while points of greater tension and thickness are created primarily by the explosive section (Patt.28), and secondarily by the brass (areas 83, 88, 91, 102, 105, 108, 116), the piano (areas 83, 85, 103, 105, 108, 113, 116), and the percussion groups (areas 101, 106, 108, 116). At area 90 the double basses appear for the first time in the piece with Patt.17/b, and re-appear at area 99 (Patt.18), area 112 (Patt.20), and areas 115 and 116. The end of area 116 represents the maximum density of the composition, with the entire orchestra playing a variety of complex patterns. An immense climax is achieved at that point which results in a very compact texture.

In the last cycle, starting at 118, the density is virtually non-existent, and at 119 it is very thin. As a whole, the third cycle of *Enantiodromia* is the most dense of all.

The overall density structure of *Enantiodromia* can be summarized in the following manner: The first cycle is characterized by a thin texture which is determined by high pitches in the strings. In the second cycle an increase of the density results from the employment of more active patterns and the introduction of additional instruments (woodwinds, percussion, and brass). The third cycle includes very dense clusters of sound and highly
Chart 3. Density Structure.
intricate rhythmic patterns. The density of the fourth cycle is very sparse. Chart 3 is a graphic representation of the density level of each cycle of *Enantiodromia*. There is an apparent escalation of the amount of density in the first three cycles. Additionally, the texture reaches higher density points and in much shorter time with each new cycle. The fourth cycle is very similar to the beginning of the first cycle in terms of density. The textural permutations of all cycles are reminiscent of the previously studied dynamic contour of the piece.

Instrumental colors are used very effectively in *Enantiodromia*. They operate very closely with the other musical aspects of the piece, such as the dynamic range, the density fluctuation, and the rhythmic content. The choice of instruments performing at a particular time is important in the enhancing or diminishing of all these aspects. For the first three cycles the general instrumental timbre layout is based on an additive procedure. In the first cycle only a few instrumental sections are involved. Additional instruments are present in the second cycle and even more in the third. The fourth cycle does not comply with the same design as it involves only one instrumental section.

The rather sustained and quiet nature of the first cycle is carried out by string instruments (violins, violas,
and cellos), and woodwind instruments (flutes and piccolos). In the second cycle additional families of instruments make their appearance, such as brass and percussion, but the overall sound is dominated by the strings. In the third cycle there is an overwhelming use of all instruments, including the double basses for the first time in the piece. Finally, only violins are present in the fourth cycle.

By examining the time intervals between entries of new instrumental sections, certain observations can be made. In the first cycle the woodwinds enter three minutes and forty-two seconds (area 24) after the strings, and the brass enter three minutes and fifteen seconds (area 62) after the woodwinds. The comparable length of these two timings give the first cycle a certain degree of symmetry. Symmetry also exists between entries of instruments of the same family. For instance, entries among the three violin sections, the violas, and the cellos happen every ten to fifteen seconds (areas 1 to 24). Similarly, the piccolos (area 27) enter fifteen seconds after the flutes. Thus, similar instruments enter shortly one after the other, while instruments of different families enter at longer time intervals. The important element of this cycle is that the instrumental color changes take place at a very slow rate.
In the second cycle such timbral changes occur at shorter time intervals. The instrumentation follows the same additive procedure as in the first cycle. The cycle starts with strings and piano, and woodwinds are added after only thirty seconds (area 65). Brass enter one minute and thirty-three seconds later (area 73). Entries among instruments of the same section occur at time intervals that range between two seconds (area 81-82), and twenty seconds (area 65-66). These time intervals become shorter closer to the end of the cycle. The number of instruments playing increases greatly. Besides the strings, flutes, oboes and trumpets found in the first cycle, all of the woodwind, brass, and percussion instruments are added. The instrumental color changes at a faster rate than in the first cycle. In addition, the rate becomes faster towards the end of the cycle.

The third cycle begins also with strings in its majority, but this time the woodwinds, the brass, and the explosive section enter quickly, in less than twenty seconds. This addition happens considerably faster in comparison to the beginning of any other cycle. The interaction between all the instrumental parts here is greater than at any other point in the piece. Between areas 82 and 91, the instrumental color changes approximately every five to six seconds. From area 91 to 113, the piece moves toward
a gradual thickening in terms of instrumentation, and at small time intervals (two to eight seconds). At area 116 the entire orchestra participates in a massive climax which discloses the highest accumulation of instrumental timbres in the piece.

The entire fourth cycle is based on a single instrumental color (violins at area 119).

The first three cycles are handled in a similar way in terms of instrumental color development. In the first cycle instruments are added at a very slow rate, while that rate becomes increasingly faster in the second and the third cycle. In the fourth cycle the instrumental involvement is minimal. Chart 4 shows the instrumental timbre layout of Enantiodromia. The time lapse between instrument entrances is expressed in seconds. Area marks are included to indicate major points of timbral change.

A multitude of sound effects in Enantiodromia are created by unconventional performance techniques. Special tuning is used in some of the string instruments in order to create microtonal effects. The technical advantage of that tuning is that, although all players of one section may read the same notes, the resulting sound varies in pitch by a quarter tone, semitone, or three-quarter tone. Other unconventional techniques include the use of the hands and other objects (cup, ruler) to play inside the
<table>
<thead>
<tr>
<th>Cycle I</th>
<th>Cycle II</th>
<th>Cycle III</th>
<th>Cycle IV</th>
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</thead>
<tbody>
<tr>
<td>1 Vn</td>
<td>63 Strings</td>
<td>82 Explosion</td>
<td>118 Silence</td>
</tr>
<tr>
<td>4 Vla</td>
<td>64 Pno</td>
<td>83 Strings, Fl, Pno</td>
<td>119 Vn</td>
</tr>
<tr>
<td>6 Vc</td>
<td>65 Fl</td>
<td>88 W/W Trb</td>
<td>0 Silence</td>
</tr>
<tr>
<td>24 Fl</td>
<td>66 Picc</td>
<td>89 Perc</td>
<td></td>
</tr>
<tr>
<td>27 Picc</td>
<td>67 Ob</td>
<td>90 D.B</td>
<td></td>
</tr>
<tr>
<td>69 Cl</td>
<td>68 Trpt</td>
<td>91 Ob, Cl Hrn, Trpt</td>
<td></td>
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<tr>
<td>73 Trpt</td>
<td>77 Hrn</td>
<td>94 Trb Pno, Perc</td>
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<td></td>
<td>78 Perc</td>
<td>95 All Perc</td>
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<tr>
<td></td>
<td>79 Trb</td>
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<td></td>
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<td>81 Tb</td>
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<tr>
<td>62 Trpt</td>
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Chart 4. Instrumental Timbre Changes.
piano (ex. 23), rapping and knocking on instruments (ex. 24), explosive effects through amplification, speech, and other vocal sounds (ex. 25). In fact, metapraxis invariably involves unusual sounds.

Ex. 23. Unconventional playing of the piano.

Ex. 24. Percussive effects on string instruments.

Ex. 25. Unusual sound effects.

*Enantiodromia* has a very wide frequency range. The selective use of various registers reveals a definite direction and formal considerations. There is a particular
logical approach to the selection of the various registers in reference to each cycle of the piece. In order to examine such frequency variations, the entire range will be divided into five registers. Chart 5 shows the range of each register.

<table>
<thead>
<tr>
<th>Register I</th>
<th>Register II</th>
<th>Register III</th>
<th>Register IV</th>
<th>Register V</th>
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Chart 5. The five registers used in Enantiodromia.

In the first cycle the register is generally very high. From area 1 to 35 only high notes are involved and they occupy a narrow portion of register I. At area 15 the pitches cover the entire width of register I. At area 35 the sound reaches lower levels to include parts of register II until area 45. At area 46 the frequency range is limited, again, to a narrow portion of register I until area 49. At area 50 there is a polarization of two separate portions of the range. The one is part of register I and the other part of register II, leaving a small gap between
them. The general frequency contour of the first cycle can be divided in two smaller units. The first unit is from area 1 to area 45 and the second unit from area 46 to area 62. They both have similar shapes and consist of a high frequency pitch that spreads downward. The first unit is four minutes and fifty seconds long, and the second one minute and twenty-five seconds. In the first unit the range expands after three minutes and fifty-five seconds, while in the second unit after only twenty seconds. The first unit is approximately three times longer than the second, but the second unit expands much faster and to a lower register. In this cycle only registers I and II are used.

At the beginning of the second cycle (area 63) the register is high, but it expands quickly at area 64. It continues to expand with sudden drops at areas 65, 70, 77, and 78 until it finally covers all five registers at area 81. The rate of the expansion is accelerated towards the end of the cycle. After area 70 there is also an upwards frequency range movement. Although the maximum width of the range is briefly reached at area 81, where all registers are covered, the majority of the cycle operates within registers I, II and III.

The third cycle (area 82) begins with a range that includes the entire register I and progressively expands
downwards at areas 83, 84 and 85 in a short period of time in order to cover all five registers. The range temporarily becomes narrower (registers I and II) at areas 86 to 88 and 96 to 97, but the rest of the cycle makes extensive use of all registers. There is an alternation of sections involving a wide frequency range and sections involving a narrow frequency range. The duration of each section is variable (see chart 6). The wide range sections, which are found at area 85, areas 89 to 95, and 98 to 117, last five seconds, thirty-six seconds, and slightly over three minutes respectively. The duration of each wide range section increases exponentially as the cycle evolves. Conversely, the narrow range sections, found between areas 82 to 84, 86 to 88, and 96 to 97, with durations of twenty-four, nineteen, and ten seconds, respectively, become proportionally shorter. This overall expansion of the range coincides with the general increase of all the other aspects of this cycle, namely the dynamics, the density, the texture and the orchestration.

![Chart 6. Alternation of narrow and wide frequency range sections.](image)
The last cycle displays only very high pitches that are all part of a small portion of register I and there is no attempt to expand. It is rather a return or perhaps a new undeveloped beginning. Chart 7 is a graphic representation of the frequency range structure of Enantiodromia.

Viewed as a whole, there is a progressive use of all five pitch registers in Enantiodromia. The first cycle includes registers I and II. The second cycle primarily uses registers I, II and III, but it also includes registers IV and V for a brief time as an anticipation of the third cycle. All five registers are extensively used in the third cycle. In contrast, only register I is used in the fourth cycle.

All compositional aspects of Enantiodromia complement each other. In the first cycle (areas 1 to 62), the main instrumental sound is created by the strings and is secondarily enhanced by the flutes and the oboes towards the middle of the cycle. Trumpets appear only briefly at the end of the cycle. Along with the limited use of instruments, there are only soft dynamics, and only high frequency pitches are used. The density increases gradually as instruments are added, and the activity of the patterns becomes greater. The end of the cycle (area 62) marks the highest degrees of density, dynamics, instrumentation,
Chart 7. Frequency Structure.
and pattern activity. The distinct characteristic of this cycle is that change takes place at a very slow rate.

In the second cycle (areas 63 to 81) a faster rate of change is witnessed. The crescendo is rapid and the dynamics are louder than in the first cycle. The activity of the patterns is incremented quickly, and the addition of more instruments (woodwinds, brass and some percussion) makes the texture of this cycle thicker. The frequency range becomes wider with the progressive accumulation of lower sounding instruments (trombones and tuba) towards the end of the cycle. In comparison with the first cycle, the general rate of change here is considerably faster.

The most extensive use of all instruments takes place during the third cycle (areas 82 to 117) in such a way that the intensification of all aspects of the piece such as density, dynamics, frequency range, and rhythmic activity, is inevitable. The dynamics and the frequency range reach extremes in a much shorter period of time than in any other cycle. The energy level is enormous due to the extensive participation of all percussion instruments and the frequent interchange of highly intricate patterns. This cycle is the most dense of the entire piece.

The fourth cycle (areas 118 to the end) displays the least amount of activity (sustained notes only), the lowest number of instruments involved (violins only), the
narrowest frequency range (high pitches only), the minimum density, and the softest dynamics.

There is a symmetry of form in Enantiodomia. The length of the first cycle (six minutes and thirty-five seconds) balances out the second and third cycles together (two minutes and thirty-six seconds, and slightly over three minutes). The fourth cycle (one minute and thirty seconds) serves as a reprise and is very much like the first minute and a half of the first cycle.

The cyclical form of the piece is mostly defined by the use of dynamics. Other aspects of the piece work very closely together in order to reinforce such cyclical design. All cycles display an increase of dynamics, with a gradual intensification of the density. The density is controlled by the fluctuation of the number of instrumental parts involved at a particular point, and by the rhythmic activity of the patterns. The cluster pitch areas follow a cyclical form that coincides with the layout of the four cycles. The frequency range gradation also obeys the general tendencies for expansion by cycle and takes place concurrently with all other aspects of the composition (dynamics, density, activity level, and instrumentation).
III. SUMMARY

Enantiodromia is a vivid example of Jani Christou's late and most mature compositional style. The study of the piece suggests the composer's genuine desire to create music of a great emotional impact. To achieve his goal he used a number of new techniques that go beyond the conventional line of thought in music composition. His efforts were directed towards an integration of musical elements and non-musical ideas as compositional aspects of the same work. All these aspects work in agreement with each other to define a clear form and induce intense reaction in performers and audiences alike. Christou added new dimensions to the art of musical composition by introducing the patterns and by incorporating psychological and theatrical elements in such a highly organized manner and to such great extent. In order to express his complex compositional ideas he devised a notational system that is effective and consistent. The psychological and philosophical parameters used in the piece bring forward the introspective thinking of a composer who thought of music not only as an artistic endeavor, but also as an inseparable aspect of everyday living patterns.

Enantiodromia gives a clear picture of Christou's personality as composer, philosopher, and dreamer with
total integration of music with all forms of artistic and intellectual expression. Its ingredients reveal sincerity, ingenuity, and a great concern for music as a means for expressing profound emotions.

Jani Christou's contributions to the art of composition have been very valuable. In spite of his premature death he has left behind him an impressive output of compositions that not only represent him as an important composer, but also as a great innovator. His creative work is an expansion of music towards other forms of art, and of philosophy, and dwells on psychological elements and personal introspection. Although a number of techniques and ideas which he used had been formulated by composers before him, they had never been organized in such a way that could be considered as a new musical language. Such a language can very well inspire future composers in the development of their own compositional style, and provides them with the means to create music which includes a great deal of gesture and drama.
PART TWO

SYMPHONY No. 1

in

Three Movements

by Aris Carastathis
INSTRUMENTATION

1 Piccolo Picc
2 Flutes Fl
3 Oboes (Ob3 only in first movement and off stage) Ob
2 Clarinets in B flat Cl
2 Bassoons Bn
4 French Horns (Hrn 3, 4 off stage in movement I, on stage in movements II and III) Hrn
3 Trumpets in C Trp
4 Trombones Trb
1 Tuba Tb
4 Percussionists

I. Crotales
Bells
Marimba Mar
Snare Drum S.D.
Triangle Trgl

II. Timpani (D, A) to (F, C, G)
Gong with bow
Tom-Toms (3 sizes)
Xylophone Xylo
Vibraphone Vib
Suspended Cymbal S.C.

III. Xylophone Xylo
Chimes
Temple Blocks (3 sizes) T.B.
Snare Drum S.D.
Suspended Cymbal S.C.
Triangle Trgl

IV. Vibraphone Vib
Bongos (3 sizes)
Tom-Toms (3 sizes)
Gong
Snare Drum S.D.
Suspended Cymbal S.C.
Triangle Trgl
Bass Drum B.D.

1 Harp Hrp
Violin I Vn I
Violin II Vn II
Viola Vla
Violoncello V.C.
Double Bass (with C extension) D.B.

Score in C
All instruments sound as written except those of normal octave transposition.

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61
SYMPSOHY No. 1

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<tr>
<th></th>
<th>Cello</th>
<th>Violin I</th>
<th>Violin II</th>
<th>Horn</th>
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The page contains a musical score with notation for various instruments, including strings, brass, and woodwinds. The layout is typical of a symphony orchestra, with sections for each instrument group.
Trorabocw Percussion
*2. Any harmonic of a note within the range indicated by blotched area.
(Fluctuate dynamics)
between p - mf
<table>
<thead>
<tr>
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Diagram with various musical instruments and notation.
Piccolo
Flute
Oboe
Clarinet
Bassoon
Horn
Trumpet
Trombone
Tuba
Percussion
Harp
Violin I
Violin II
Viola
Cello
Bass
BIBLIOGRAPHY


APPENDIX

Additional Symbol Explanation

Groups of multiple notes played as fast as possible.

Sustained note with downward bending followed by shorter notes.

Notes with an accented attack.

Explosive effect of a group of amplified instruments.

Sound mass with continuous crescendo and decrescendo.

Sound mass with irregularly spaced accents of variable intensity.

Notes with continuous crescendo, decrescendo, and vibrato.

Cluster created by playing a designated area of the strings inside the piano.

Dynamic marking for an almost inaudible sound.

The players are involved in a speaking act, which is beyond the normal performance of their instruments. This is a typical case of metapraxis.
VITA

Aris Carastathis was born on May 25, 1957 in Athens, Greece. His formal music education began at the Conservatory of Attica in Athens, where he studied classical guitar and music theory. He has earned a Bachelor of Arts in Music, with a major in guitar, from the University of Northern Iowa, and a Master of Music in composition from the University of Northern Iowa in 1983. He entered the graduate program at Louisiana State University in 1983, and studied with Boyd Professor Dinos Constantinides, for the pursuit of the degree Doctor of Musical Arts. His output of compositions includes works for a variety of media, such as solo, chamber, orchestral, electronic, and film music. He has received commissions from the Baton Rouge Symphony Chamber Orchestra, the LSU New Music Ensemble, and the LSU Computer Music Studios. His music has been performed in many concerts, festivals and conventions in Louisiana, New York, Iowa, Texas, and Mississippi, and has received several public radio broadcasts. He has conducted the Waterloo Chamber Orchestra, the University of Northern Iowa Symphony and Chamber Orchestras, the LSU New Music Ensemble, and various other chamber groups. He is an elected member of the Pi Kappa Lambda National Music Honor Society, a recipient of the 1987 National
Collegiate Music Award and he was included in the 1987 American Hellenic Who's Who in Business and the Professions.
Candidate: Aristocles Carastathis

Major Field: Music

Title of Dissertation: ENANTIODROMIA BY JANI CHRISTOU AND AN ORIGINAL COMPOSITION, SYMPHONY NO. 1

Approved:

[Signatures of Major Professor and Chairman, Dean of the Graduate School]

EXAMINING COMMITTEE:

[Signatures of committee members]

Date of Examination: April 18, 1988