

CHALDEAN STRUCTURES,

A TONE POEM FOR ORCHESTRA:

A COMPENDIUM OF PROCEDURES, ASPECTS, AND PROBLEMS

by

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A MASTER'S REPORT

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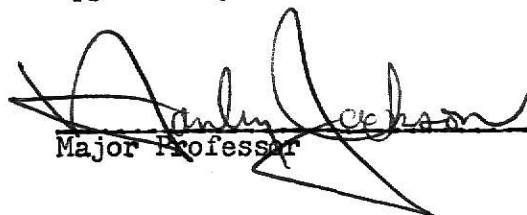
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TABLE OF CONTENTS

PREFACE

Chapter

I. THE TITLE AND ITS IMPLICATIONS	1
II. STYLE	9
III. INSTRUMENTATION	10
IV. NOTATIONS, ABBREVIATIONS, AND SYMBOLS	11
V. RHYTHM	13
VI. HARMONIC ASPECTS	14
VII. LARGE FORM	17
VIII. SECTIONAL FORM	18
APPENDIX A. Notations, abbreviations, and symbols	25
APPENDIX B. Percussion Identification Chart	27
BIBLIOGRAPHY	

PREFACE

This Compendium is a companion to the composition Chaldean Structures (1975), a tone poem for large orchestra based on the signs of the Zodiac, submitted in partial fulfillment of the requirements for the degree, Master of Music in Theory and Composition. My objective in writing this piece was to create a large-scale work employing contemporary techniques used in the exploration of non-traditional sounds.

The purpose of this report is to discuss some of the procedures, aspects, and problems connected with the composition of Chaldean Structures.

I am very grateful to my major professor, T. Hanley Jackson, for the advice and guidance I have received in the preparation of this Compendium and of the composition Chaldean Structures. I would like to show my deep appreciation by dedicating this piece to him.

I. THE TITLE AND ITS IMPLICATIONS

The initial decision to base this piece on the signs of the Zodiac was due to the deep impression made upon hearing the first two volumes of George Crumb's Makrokosmos. Through research, it was determined that each of the signs could be developed into a character piece, using the individualistic traits associated with each. Other possibilities arose, such as each sign having particular numerical and coloristic associations. The discussions which follow in this chapter will offer an insight into the initial development of the piece.

The title

Choosing the title which best represents a compositional effort is often a difficult task. It seemed only fitting that the title should include something about astrology, the Zodiac, or some other closely related area.

The term "astrology" conjures up several different images, but that particular choice was not aesthetically pleasing. Incorporating the term "Zodiac" would have been the most logical choice, but a conflict in meaning arose.

There was a Parisian movement after World War II, by a group known as the "Zodiaque," which had grown out of mainstream music traditions. They proclaimed themselves against systems, prejudices, habits, and

fashions.¹ Since this piece is dependent on previous systems, fashions, etc., that particular choice as a possible title was quickly disregarded.

Roget's Thesaurus presents the term "Chaldean" as a synonym for "astrologer." Reference to a standard dictionary was necessary for a preliminary investigation of its meaning. "Chaldean" (kal-dé-ən) refers to a group of ancient Semitic people who ruled in Babylonia where astrology and magic once flourished.² Since interpreters of the horoscope depend on astrology for guidance, the title Chaldean Structures was chosen.

Interpretation of the horoscope

Existing material on the symbolism relating to the horoscope does not differ greatly from source to source. Those basic qualities which were chosen for direction are known to all who actively interpret the signs of the Zodiac and pursue them as a viable determiner of human nature. Research was directed toward finding highly descriptive words and phrases from each of the signs. These key words and phrases were then treated as a text might be for a choral composition; they determined the sectional forms of the piece (Chapter VIII) and the dramatic ideas. The results of that research is as follows:

Sun: circle of limitless potentiality which revolves around the twelve signs and represents power, eternity, and the generator of all life.

Aries: beginnings--potential creativity but no stability of completion (strong thrust-poor delivery)--a pioneer.

Taurus: stability (a settler)--finishes what Aries starts.

¹Edith Boroff, Music in Europe and the United States (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1971), pp. 620-21.

²American Heritage Dictionary of the English Language, rev. ed. (1973), s.v. "Chaldea" and "Chaldean."

- Gemini: communicative--dual in nature--jumps from one thought, idea, or subject to another--"Gemini is like a bee who, presented with a field of flowers, buzzes from one beautiful blossom to the next, gathering a little bit of nectar from each without apparant pattern."³
- Cancer: synthesis of Aries, Taurus, and Gemini--concerned with his own preservation--" . . . finds it difficult to sacrifice ethnic roots or tradition for personal growth."⁴
- Leo: center of attention--king of the Zodiac--ambitious--capable of long sustained efforts.
- Virgo: discriminator--the purifier of the personal and self-centered.
- Libra: the scales (well-balanced)--harmony or shared activity (perfection in action)--avoids extremes.
- Scorpio: urge to re-create--key is timing and degrees of intensity.
- Sagittarius: philosophical--born teacher (gains knowledge and quickly imparts it to others)--sends out ideological arrows.
- Capricorn: nature of Capricorn's vibration is to provide a structure upon which a larger form will be created--economical, concise, and restricted.
- Aquarius: represents outgrowth of Capricorn--new ideas--inventive--intellectual.
- Pisces: self-sacrificing--" . . . finds gratification through the loss of personal identity . . . often looses footing and must periodically withdraw from society in order to reestablish individual identity."⁵

³Alan Oken, The Horoscope, The Road and Its Travelers (New York: Signet-New American Library, Inc., 1973), p. 74.

⁴Oken, p. 77.

⁵Oken, p. 84.

Final order of the signs

The most influential directive came from the Cardinal-Fixed-Mutable qualities of the signs. Generators of activity include Aries, Cancer, Libra, and Capricorn; concentrators of energy are Taurus, Leo, Scorpio, and Aquarius; and those which transfer energy include Gemini, Virgo, Sagittarius, and Pisces.⁶ These key words, generators, concentrators, and transfer, were responsible for the final order of appearance of the signs in Chaldean Structures.

Aries: initial generation--strong thrust, poor delivery.

Sagittarius: transfers energy to Taurus.

Taurus: concentrates energy given by Aries.

Gemini: transfers energy to Libra.

Libra: brings harmony to Gemini's unstable nature by generating new activity.

Leo: quickly interrupts quietude of Libra to become the center of attention by concentration of energy previously given.

Virgo: discriminates and breaks down what Leo has built up by the transfer of energy to Capricorn.

Capricorn: generates his energy through structure.

Aquarius: concentrates the energy of Capricorn into new ideas.

Cancer: generates energy through previously based material.

Scorpio: regenerates and concentrates previous ideas.

Pisces: transfers energy because he loses personal identity.

Aspects of form were derived from the above directives. Refer to Chapters VII and VIII for a more detailed explanation.

⁶Oken, p. 66.

Numerical implications

"Numerology is the study of the occult significance of numbers. Twenty-five hundred years ago it was a science leading men to suspect that in nature there was a type of orderly rhythm to which he could relate."⁷

In addition to relying heavily on the interpretive aspects as previously outlines, numerology is extensively considered as a determiner of form and the prediction of events. Initial numerical symbolism may be seen in the following example:

12 signs of the Zodiac

12 different notes in the chromatic scale

Instrumentation was suggested by the number 12:

12 woodwind performers

12 brass players (plus one tuba for depth)

4 percussion performers (12 ÷ 3)

24 string parts (12 x 2)

Further investigation revealed that each sign was associated with particular numbers of importance. Sidney Omarr, in his book Astrological Revelations About You, assigns the following numbers to the signs:

Aries: 9, 1, and 8.

Sagittarius: 3, 5, and 7.

Taurus: 6, 4, and 2.

Gemini: 5, 9, and 3.

Libra: 6, 4, and 9.

Leo: 1, 9, and 8.

Virgo: 5, 3, and 9.

Capricorn: 2, 8, and 9.

⁷Sybil Leek, Numerology (Toronto: Collier-Macmillan Canada Ltd., 1969), p. 1.

Aquarius: 1, 2, and 7.

Cancer: 2, 7, and 3.

Scorpio: 2, 4, and 6.

Pisces: 2, 6, and 7.

Determining the significance of each number was the next most important step. The following is a condensation from Sybil Leek's book Numerology, pages 27-34.

- 1 symbol of light--power and will of the universe--the life force.
- 2 unity--correlation--generative force at work--represents cohesive thinking--a well-balanced digit.
- 3 activity in many forms which may sputter and die out--affects other people.
- 4 connected with the mind--analysing, comparing, creating by thought--constructive, need for discipline--logical.
- 5 complicated number, very secretive--it starts as an innate small form--a new form can mature from it, but it may be carried to extremes.
- 6 a stabilizer, but it may defeat the ultimate idea--associated with love (but elusive).
- 7 concerned with completion and finality, but may or may not be successful or perfect--cautious--built by sum total of experience--bearer of many burdens--boring and depressive--concerned with action and reaction.
- 8 pursues power through aggression--inspiration to pursue power (idea has to come first).
- 9 noble--highest order of things--difficult to live up to--a need to withdraw.
- 0 sign of the infinite--ancient symbol of eternal life--limitless--no beginning, no end--completed circle of life--total sum of a persons life.

The employment of these numbers was approached from several aspects, such as seconds of silence, length of sustained notes, number of performers, number of specific notes used in a set, etc. The following

examples are just a few of many found in Chaldean Structures which depends on the use of numbers as significant organizational material. It is necessary to refer to the preceeding chart for correct interpretation.

The figure which begins in measure 1 is performed by two players and lasts for five seconds.

Beginning in measure 77, the flutes are sustaining three different notes for a total of nine seconds. This is immediately followed by a nine-note melodic set.

Beginning in measure 124, the brass figure lasts nine seconds. The woodwinds enter in measure 126, over-lapping the end of the brass figure at the time interval of one second. This woodwind figure lasts for eight seconds.

The section which corresponds to the sign Aquarius, measures 193-216, is written for seven performers.

Multi-media possibilities

Alexander Scriabin, like many Romantics of the nineteenth century, tried to co-ordinate the functions of the different sense-organs. The definite affinity between hearing and seeing represents an approach to a "total" work of art.

Chaldean Structures, although not originally conceived as a "total" work of art, does have possibilities as a multi-media piece. By using a complex system of lighting, the multi-media aspects of this piece could be realized.

Each sign is represented by a specific color on the total color spectrum. By referring to a dictionary, it is interesting to note what specific meanings are associated with certain colors, and how, in turn, they correspond in meaning to the interpretive aspects as found earlier in this chapter.

Sun (gold): very brilliant.

Aries (red): a primary color from which others are derived.

Sagittarius (light blue): slightly puritanical and melancholy.

Taurus (blue and pink): blue is puritanical and melancholic,
while pink, as in pinking shears,
prevents unraveling.

Gemini (yellow): jealous, resentfully suspicious of a rival.

Libra (indigo blue): deeply puritanical and very melancholy.

Leo (orange and gold): very brilliant.

Virgo (gray and navy blue): somewhat dull, dreary, dark,
and dismal.

Capricorn (black and green): depressive, gloomy, and cheer-
less—not mature or ripe.

Aquarius (electric blue): strict and melancholic.

Scorpio (crimson): very deep red.

Cancer (violet): melancholy, elaborate, and ornate with
red tinges (primary).

Pisces (sea green): not mature or ripe.

II. STYLE

In part, the style of Chaldean Structures was influenced by that of the Polish composer, Krzysztof Penderecki, because the ultimate consideration while composing this piece was to explore the vast possibilities of sound material available within a traditional concert body (orchestra) through the use of fully detailed traditional and non-traditional notation. Elements of style, such as texture, timbre, and density, were approached in direct similarity to his Capriccio (1967) for violin and orchestra and the Threnody to the Victims of Hiroshima (1961) for fifty-two strings.

Chaldean Structures does not depend entirely on the style of Penderecki. Anton Webern, through his Concerto for Nine Instruments (1934), Op. 24, directly influenced the construction of the row as found in Chapter VI, and in the ultimate composition of measures 192-218.

III. INSTRUMENTATION

The instrumentation of Chaldean Structures calls for a large orchestra. Final instrumentation was a result of influence by the works of Penderecki and the numerical significance as outlined in Chapter I. For purposes of balance and sonority, it is preferred that two string players play each separate string part (24 parts ■ 48 players).

- 3 Flutes (Fl.)
- 3 Oboes (Ob.)
- 3 Clarinets (Clar.)
- 3 Bassoons (Bsn.)

- 4 Horns (Hrn.)
- 4 Trumpets (Trpt.)
- 4 Trombones (Trb.)
- 1 Tuba

Percussion--four players⁸

- Timpani (Timp.)
- Xylophone (Xyl.)
- Vibraphone (Vibe.)
- Chimes (Chm.)
- Snare Drum (S. Dr.)
- Bass Drum (B. Dr.)
- Suspended Cymbal (Sus. Cym.)
- Triangle (Tri.)
- Tam-tam (T-Tam)
- Temple blocks (Temp. Blk.)
- Bell tree (Bell Tr.)

- 12 Violins (Vln.)
- 4 Violas (Vla.)
- 4 Violoncellos (V.C.)
- 4 Double Basses (D.B.)

⁸Refer to Appendix B. Percussion Identification Chart.

IV. NOTATIONS, ABBREVIATIONS, AND SYMBOLS

Music of the twentieth century has seen the composer seeking new avenues of sound potential. Previous notational practices no longer continue to serve the composer in the effective creation of these new sound properties, so a new notational system must be created to explore the sound possibilities available. Erhard Karkoschka, in his book Notation in New Music, presents the following thought:

"The main purpose of musical notation is to make possible the construction, preservation and communication of more complex kinds of music."⁹

He later speaks of current involvement with improvisation:

"These ideas are more in need of a new kind of notation . . . (The) aim of approximate indications is to free the interpreter from inhibitions, and let him spontaneously discover occurrences in sound never heard before."¹⁰

Chaldean Structures, while preserving some traditional means of notation, also employs some new notational devices.¹¹

Abbreviations serve the purpose of reducing a word or direction to a shortened form so that it represents the complete form. A symbol represents something by association, resemblance, or convention. Abbreviations and symbols are used in the accompanying score to free

⁹Erhard Karkoschka, Notation in New Music (New York: Praeger Pub., 1972), p. 1.

¹⁰Karkoschka, p. 2.

¹¹Refer to Appendix A. Notations, abbreviations, and symbols.

the interpreter from unnecessary visual associations. These reduced directives, which are being used more and more by composers in the latter half of the twentieth century, add clarity to the score.

Abbreviated forms of instrument names will be found in Chapter

III. Other directive abbreviations and symbols are found in Appendix A.

V. RHYTHM

Rhythm, in a traditional sense, refers to a particular pattern of note values. As applied to Chaldean Structures, rhythm represents a movement in time (seconds) through space (pitch). For purposes of clarification, bar lines have been placed to denote units of four seconds. It is intended that no particular pulse will be felt except as manipulated by accents and articulations.

There are two instances that call for a measuring different than in seconds. The sub-piers immediately preceeding and following the apex of the arch call for a metronome marking of ♩ = 72. In all other instances, there will be four seconds to each measure, or a marking of ♩ = 60. The preceeding clarification was needed because of the time proportion this piece encompasses.

VI. HARMONIC ASPECTS

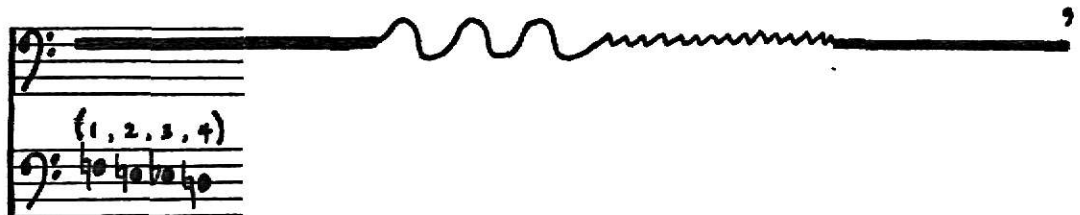
In relation to Chaldean Structures, it is essential that one does not view the term "harmonic" in a traditional sense, but rather to view it as a method of arranging vertical sonorities whether they be triads or clusters.

Sound-mass

The technique of sound-mass is of extreme importance in the achievement of style as outlined in Chapter II. Evidence of its use is immediate, for in measure 4 the strings begin to expand in opposite directions chromatically from a central pitch. In this particular example, a sustained tone is called for. Other examples, for purposes of sonority, require different manipulations such as trills, staccato groupings, slow vibrato, fast vibrato, blocks of sustained notes employing staggered dynamic markings, and groups of indefinitely pitched notes requiring a constant fluctuation from straight tones to slow vibrato to fast vibrato. Examples of these different techniques follow:

1. Definite pitch: straight tone to slow vibrato to fast vibrato back to straight tone.

FIGURE 1.



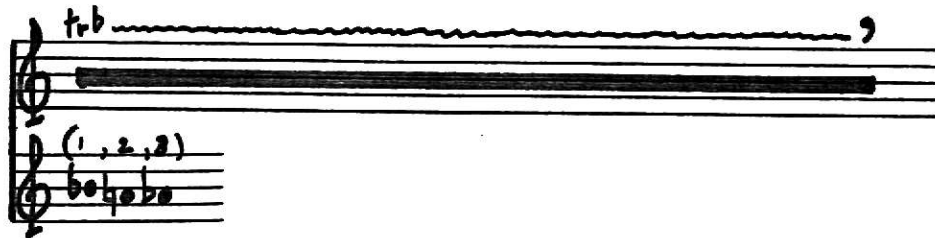
2. Indefinite pitch: straight tone to slow vibrato to fast vibrato back to straight tone.

FIGURE 2.



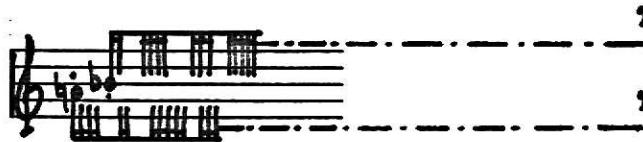
3. Trills:

FIGURE 3.



4. Staccato:

FIGURE 4.



5. Staggered dynamics:

FIGURE 5.



Sets

Sets refer to a particular sequence of notes. In Chaldean Structures, these predetermined groups may range from five to twenty-four notes and function as motivic cells. The following examples will help to clarify those groupings found.

FIGURE 6.



FIGURE 7.

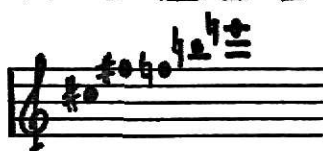


FIGURE 8.

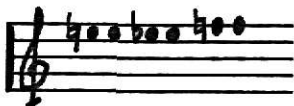


FIGURE 9.

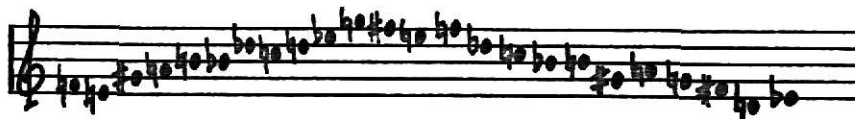


Figure 9 is based on the following twelve-tone row, which is also regarded as a set.

FIGURE 10.

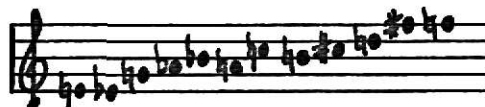
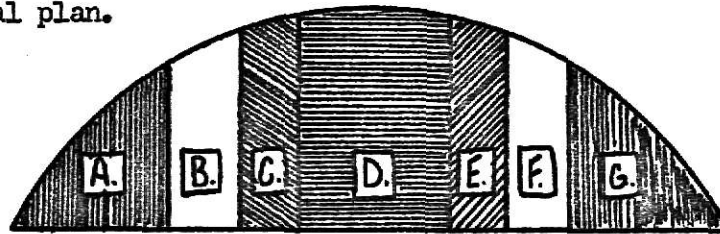


Figure 8 was derived from the twelve-tone row, Figure 10.

VII. LARGE FORM

The formal plan for Chaldean Structures was not preconceived. After several sections were completed it was evident that an arch form was developing. Because of its great adaptability and extensive use by twentieth century composers, the final sections were manipulated to fit this formal plan.

FIGURE 11.



The apex of the arch is represented by the sign Leo, "he who enjoys being the center of attention." Aurally, the apex begins with the entrance of unmuted brass.

Section A (Sun, Aries, Sagittarius, and Taurus) and section G (Cancer, Scorpio, Pisces, and the Sun) may be thought of as exposition and recapitulation, although this verbalization should not be misconstrued as a sonata-allegro form. The apex of the arch (section D--Leo and Virgo) is surrounded by sections C and E (Libra), E being a psuedo-retrograde of section C. Section B (Gemini) and section F (Capricorn and Aquarius) are unrelated.

VIII. SECTIONAL FORM

This piece is considered a tone poem; therefore, it is comprised of sections which correspond to my interpretation of the signs of the Zodiac. This chapter is designed to deal with each section individually. There is by no means an attempt to provide a complete analysis of the composition, but rather a generalized description of the musical elements found in Chaldean Structures.

Sun

The Sun serves to provide an introduction to the piece (measures 1-26). Emphasis is placed on an additive process of sound and intensity. Represented symbolically by the "circle of limitless potentiality," the Sun is found in retrograde at the end of the piece beginning with the percussion at measure 265. This serves to complete the circle.

Aries

Aries is also built with the additive process in mind. Improvisational figures are used to create the stigma of a "strong thrust-poor delivery" and "no stability of completion." The appearance of Aries is accounted for in measures 27 (strings) through 52.

Sagittarius

Sagittarius is short lived, but his sole purpose is the transference of energy from Aries to Taurus. The string glissandi in measures 52-58

are representative of those "ideological arrows" as described in Chapter I of this Compendium.

Taurus

Because Taurus is a settler, those devices found in a haphazard fashion in Aries are realized in an organized manner (measures 58-76). The entrance of the strings on their highest notes after the glissandi are an exact retrograde of the entrances found in the beginning of Aries. The concept of tension and relaxation is most important.

Gemini

The duality of Gemini depends largely upon improvisational-like figures found between the flutes and clarinets, and between the oboes and muted trumpets. An outline of those musical figures may be found in Chapter VI.

Like all sections up to this point, Gemini (measures 77-100) is highly dependant upon the additive process. The climax of this section occurs in measures 99 and 100, the only point in which all previously introduced material happens simultaneously.

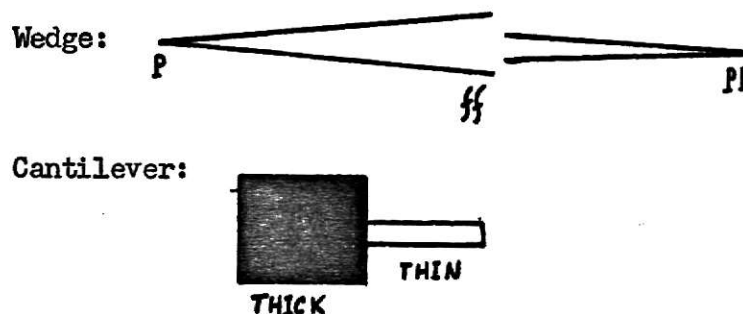
Libra

Libra is represented symbolically by the scales, a trait of the well-balanced. Appearing in measures 101-123, immediately prior to the apex of the arch, it again reappears in retrograde, measures 167-191 after the apex of the arch is completed. The aspect of "harmony" and "shared activity" manifests itself through the use of Klangfarbermelodie, an example of which may be found in measures 113-115 between the horn and the vibraphone.

Leo

Leo is entirely dependant upon tension and relaxation. This contrast is achieved by manipulating musical events through dynamics and texture. The following examples provided the basis for constructing this section.

FIGURE 12.



Measures 124-167 represent the "life of Leo."

Virgo

Virgo represents no separate section within Chaldean Structures. The decrescendo at measure 165 represents the concept of Virgo's discriminating nature which is immediately transferred to the return of Libra.

Capricorn

Like Virgo, Capricorn is represented only by a concept, that being the basic structure (twelve-tone row) on which a large form (Aquarius) will be based. That row is outlined in Chapter VI, FIGURE 10.

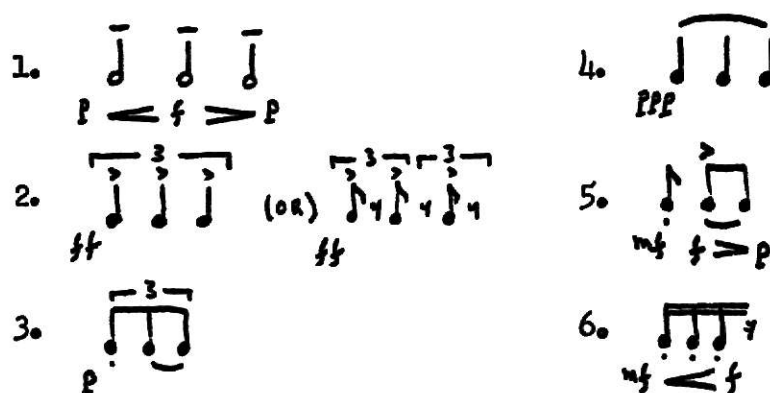
Aquarius

Aquarius, which utilizes the basic structure provided by Capricorn, is based on a free adaptation of serial techniques and numerical proportionalism. The following example illustrates the proportionalism

employed and the corresponding use of serialized dynamics and articulations.

FIGURE 13.

Numerical proportionalism: 1:1:1



A quasi-palindrome technique was employed in constructing this section, measures 205-218 being a retrograde of 192-205.

Cancer-Scorpio-Pisces

This last completing section of the arch, except for the reappearance of the Sun, is a synthesis of Aries, Sagittarius, Taurus, Gemini, and Leo. The underscoring string parts are an exact repetition of Aries, Sagittarius, and Taurus, with sections of Gemini and Leo interpolated above. This method of conclusion was achieved through a loose interpretation of the idea that one must return to his foundations and ethnic roots through sacrifice in hopes of regeneration. Measures 217-267 and measures 265-291 (reappearance of the Sun) complete this tier of the arch and thus, completes the composition.

Sub-titles were used to designate these specific sections found within the score. They were intended to further add to those types of thought-provoking implications the Zodiac seems to present. In the case of Virgo, Capricorn, Cancer, Scorpio, and Pisces, the sub-titles

represent the approximate location or presence of the sign within the context of the piece (refer to the specific explanation of those signs found in the first part of this chapter for clarification).

Ouroboros-Sun

This symbol appears principally among the Gnostics and is depicted as a dragon, snake, or serpent biting its own tail. Symbolic of time and the continuity of life, its symbolism represents a primitive idea of a self-sufficient nature which continually returns, within a cyclic pattern, to its own beginning.

Parabrahman-Aries

Parabrahman, coming from Hindu symbolism, refers to the Ram (Aries), that which provides the creative impulse and stands for the undifferentiated whole.

Papyri-Sagittarius

In the Egyptian system of hieroglyphs, a rolled papyrus is a determinative sign defining the concept of knowledge. Symbolically, its significance corresponds not so much to the object or material in question as to the process of its manifestation.

Ashlar-Taurus

In the Egyptian system of hieroglyphs, the sign incorporating the ashlar (squared stone) symbolizes material which has been worked upon, or the results of creative activity.

Janus-Gemini

Janus is a Roman deity who is represented with two faces. Because

of the duality, it is equivalent to the myth of Gemini.

Astrea-Libra

In astronomy, Astrea is the equivalent of Justice, the eight enigma of the Tarot. Positively speaking, this enigma denotes harmony and balance.

Apollon-Leo

Apollon, the Greek name for Apollo, means "from the depths of the lion" and expresses the meaningful relationship of the Sun with the sign of the Zodiac, Leo.

Dionysos-Virgo

In Greek mythology, Dionysos is an infernal deity and is a symbol of the uninhibited unleashing of desire, or of the lifting of any inhibition or repression. Through Chaldean Structures, Dionysos represents the lifting of the repressive thought connected with Leo.

Narcissus-Capricorn

The Narcissus myth is symbolic of the self-contemplative, introverted, and the self-sufficient attitude. According to Hindu doctrine, Capricorn is dual in nature and represents a return to or departure from the Zodiac. Through Chaldean Structures, it means the latter.

Labyrinth-Aquarius

An architectonic structure, Labyrinth represents a complex pattern, apparently aimless. Once inside this pattern it is impossible or very difficult to escape.

Minstrel-Cancer

The first enigma of the Tarot pack, this figure of a minstrel is a symbol of the original activity and the creative power.

Saturnalia-Scorpio

A characteristic of ancient mythology was the idea that each reign must give way to another. In order for life to continue, sacrifice was the sole source of re-creation. In ancient Italy, Saturnalia was the most outstanding example of such sacrifice.

Akasha-Pisces

The Akasha of Pisces is often referred to as the universal solvent. Through Pisces, the dissolution of previous forms take place through the Akasha.

APPENDIX A. Notations, abbreviations, and symbols

General:

-  - Repeat the indicated grouping as rapidly as possible.
-  - Sustain note(s) for approximate duration of line, then release.

Blown instruments:

-  - Repeat the given note according to the notated rhythm.

Percussion instruments:

-  - With medium sticks.
-  - With soft sticks.
-  - With jazz brushes.
-  - With snare drum stick.
-  - With triangle rod.

String instruments:

-  - Molto vibrato.
-  - Extremely slow vibrato, over the interval of a quarter-tone.
-  - Very rapid non-rhythmized tremolo.
-  - Arpeggio on four strings between bridge and tail-piece.
-  - Low to high.

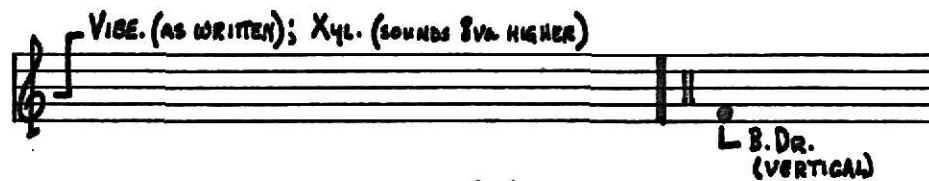
String instruments (cont.):

- ↓ - High to low.
-  - Percussive effect, strike the upper sounding board with the finger tip.
- ↑ - Highest note of the instrument (no definite pitch).
- M.O. - Ordinario.
- N.V. - No vibrato.
- Pizz. - Pizzicato.
- S.P. - Sul ponticello.
- S.T. - Sul tasto.

APPENDIX B. Percussion Identification Chart

Percussion I

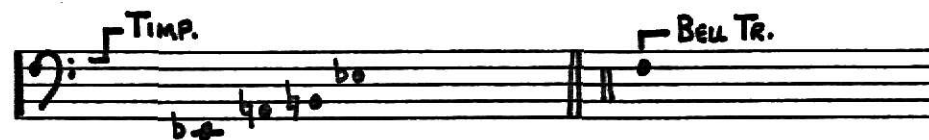
VICE. (AS WRITTEN); XYL. (SOUNDS 8va HIGHER)



L B.Dr. (VERTICAL)

Percussion II

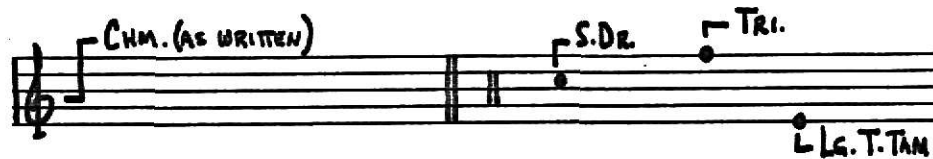
TIMP.



BEL TR.

Percussion III

CHM. (AS WRITTEN)



S.Dr. TRI.

L G.T. TAM

Percussion IV

TEMP. BLK. (5)



MED. LG. SUS. CYM. (18")

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CHALDEAN STRUCTURES,

A TONE POEM FOR ORCHESTRA:

A COMPENDIUM OF PROCEDURES, ASPECTS, AND PROBLEMS

by

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B. M., UNIVERSITY OF COLORADO, 1973

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requirements for the degree

MASTER OF MUSIC

Department of Music

KANSAS STATE UNIVERSITY
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This Compendium is a companion to the composition Chaldean Structures (1975), a tone poem for large orchestra based on the signs of the Zodiac. My objective in writing this piece was to create a large-scale work employing contemporary techniques used in the exploration of non-traditional sounds.

I. The Title and Its Implications

Through research, it was determined that each of the signs of the Zodiac could be developed into a character piece, using the individualistic traits associated with each. Also taken into consideration were the individual numerical and coloristic associations connected with each of the signs. The term "Chaldean," a synonym for "astrology," refers to a group of ancient Semitic people who ruled in Babylonia where astrology and magic once flourished.

II. Style

The style of Chaldean Structures was influenced by that of the Polish composer, Krzysztof Penderecki, because the ultimate consideration while composing this piece was to explore the vast possibilities of sound material available within a traditional concert body (orchestra) through the use of fully detailed traditional and non-traditional notation. The construction of the twelve-tone row which appears periodically throughout the piece was influenced by the works of Anton Webern.

III. Instrumentation

Final instrumentation was a result of influence by the works of

Penderecki and the numerical significance associated with the signs of the Zodiac.

IV. Notations, Abbreviations, and Symbols

Approximate indications were used not only to free the interpreter from inhibitions and unnecessary visual associations, but also to conform to the accepted practices of score preparation as found in the music of the twentieth century.

V. Rhythm

Rhythm, in a traditional sense, refers to a particular pattern of note values. As applied to Chaldean Structures, rhythm represents a movement in time (seconds) through space (pitch). For purposes of clarification, bar lines have been placed to denote units of four seconds. It is intended that no particular pulse will be felt except as manipulated by accents and articulations.

VI. Harmonic Aspects

Harmonic aspects, as applied to Chaldean Structures, refers to a method of arranging vertical sonorities. The technique of sound-mass is of extreme importance in the achievement of style. Melodic implications, referred to as sets, were suggested by the sound-mass technique.

VII. Large Form

The formal plan for Chaldean Structures is a large arch form, used mainly because of its great adaptability and extensive use by twentieth century composers.

VIII. Sectional Form

This piece is considered a tone poem; therefore, it is comprised

of sections which correspond to my interpretation of the signs of the Zodiac. Sub-titles were used to designate these specific sections found within the score, since the whole is to be performed as a one-movement work.