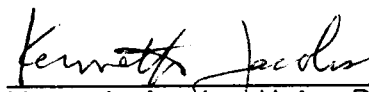


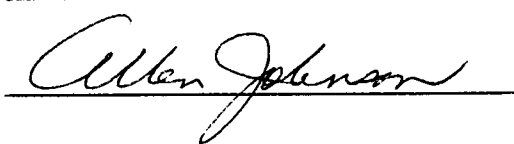
To the Graduate Council:

I am submitting herewith a thesis written by Kevin R. Hiatt entitled "Celestial Migrations for Computer Synthesized Tape and Synchronized Projections." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Music.


Kenneth Jacobs, Major Professor

We have read this thesis
and recommend its acceptance:





Accepted for the Council:


The Graduate School

CELESTIAL MIGRATIONS FOR COMPUTER SYNTHESIZED TAPE
AND SYNCHRONIZED PROJECTIONS

A Thesis
Presented for the
Master of Music
Degree
The University of Tennessee, Knoxville

Kevin R. Hiatt

August 1983

ABSTRACT

The purpose of this study is to bring to resolution the technical and aesthetic problems resulting from the creation of a multi-media work for computer synthesized tape and synchronized visuals. In order to place the work in historical perspective the following works were chosen which are in similar media:

- (1) Poème Electronique, composed by Edgard Varèse,
- (2) Delusion of the Fury, composed by Harry Partch,
- (3) Wavelines II, composed by Reynold Weidenaar,
- (4) IO, composed by Maggi Payne,
- (5) The Terminal Opera, composed by Gilbert Trythall.

The compositional procedures are analyzed along with those in my work: Celestial Migrations for Computer Synthesized Tape and Synchronized Projections. Information concerning these works and their composers was found primarily in program notes, biographies, and compositional treatises written by the composers.

The major conclusion of the research was: that synchronization of music with visual material presents the composer with the problem of how to produce a creative product that includes more than just a musical score. In combining music with visual material, a meaningful relationship must be established between music and images.

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CHAPTER I

HISTORICAL DEVELOPMENT OF MIXED-MEDIA ART FORMS

In the twentieth century, Alexander Skryabin emerged as a pioneering figure who had definite ideas about music and the visual arts. Skryabin's initial interest in associating music with color stemmed from discussions with Rimsky-Korsakov in 1907, when they found they had similar associations between pitches or chords and color.

To make his ideas more practical Skryabin worked with Alexander Mozer on the development of a color organ. The first practical use of this instrument occurred in the score to Skryabin's Prometheus. In this work Skryabin notated for the instrument on a five line staff, each key depression producing a different hue of the spectrum. During the performance the audience would be bathed in the appropriate color for the music being heard. Hugh MacDonald sums up Skryabin's rationale for such a synaesthetic approach in his book Skryabin:

He simply believed that the experience of color would enhance the experience of sound, as any devotee of psychedelia will agree, and he suggested that an audience will absorb the sense experience of Prometheus more fully if it is bathed in light corresponding to the harmonic flow of the music.¹

Still later in this century, another composer, Olivier Messiaen, emerged to compose a music infused with a mystical pathos based on an association of music and color. In an interview with Claude Samuel, Messiaen articulated some of his views in regard to color and music:

CLAUDE SAMUEL. We will raise the problems of rhythm later, but for the moment, to grasp your musical personality more completely, I'd like you to revert to this question which is so curious and yet so important in your aesthetic: the role you attribute in your music to colour.

¹Hugh MacDonald, Skryabin (London: Oxford University Press, 1978) p. 78.

OLIVIER MESSIAEN. For the composer, there are different ways of conceiving colour. The first and most interesting is that which we have mentioned earlier, that is to say the sound-colour relationship perceived psychologically.²

Like Skryabin, Messiaen postulates that certain sounds are linked to certain colors which may be visualized in the "mind's eye" while listening to music.

CLAUDE SAMUEL. Do you see colours, or do you imagine them?

OLIVIER MESSIAEN. I see them inwardly: this is not imagination nor is it psychic phenomenon. It's an inward reality.

CLAUDE SAMUEL. But do you try to translate colours in your music?

OLIVIER MESSIAEN. Actually I try to translate colours into music: for me certain complexes of sound and certain sonorities are linked to complexes of colour, and I use them in full knowledge of this.³

The thought of Skryabin and later Messiaen was important in that a foundation was laid on which to base a rationale for combining music with visual images.

To narrow the field of consideration one must first arrive at a general definition of what mixed-media is. Eric Salzman, writing in the Dictionary of Contemporary Music states:

Mixed-media is a loosely applied term for theater works or events that involve some merging of arts, forms, techniques, means, and electronic media, all directed at more than one of the senses and generally involving some kind of total surrounding (as opposed to the use of only a proscenium stage).⁴

It is also important to distinguish between three distinct types of mixed-media: environments, happenings, and music theater. An environment usually

²Claude Samuel, Conversations with Olivier Messiaen (London: Stainer & Bell, 1976), p. 32.

³Ibid., p. 33.

⁴John Vinton, Ed., Dictionary of Contemporary Music (New York: E.P. Dutton and Company, Inc., 1974), p. 489.

takes the form of an installation by an artist, or a group of artists. The environment type of mixed-media event may take place not only in the concert hall but in museum galleries, exhibit halls or other locations not designed for traditional performance mediums. Generally, the environment is of a non-linear, non-developmental nature. A happening is a simultaneous and/or sequential arrangement of actions, events, performances, or other types of cultural activity. In contrast, music theater tends to be the more formal type of mixed-media, usually having a defined performance and time space. Diverse elements, such as vocal and instrumental performers, dancers, actors, electronic music, and visual imagery, may be used in music theater presentations.

A figure associated with the early development of mixed-media was John Cage, in collaboration with the Merce Cunningham Dance Company. Beginning in 1952, Cage and Cunningham produced happenings involving music and dance at Black Mountain College, North Carolina. During 1957-60, composer Henry Jacobs collaborated with film maker Jordan Belson to produce multi-media concerts at the Morrison Planetarium in San Francisco. This mixed-media installation included fifty loudspeakers, permitting movement of sound in coordination with the projections that moved over the dome of the planetarium.

World's Fairs emerged early on as a forum not only for electronic music but for the presentation of mixed-media events. At the Brussels World's Fair of 1958 composer Edgar Varèse presented his Poème Electronique in the Philips Pavillion, which was specially designed by the French architect, Le Corbusier. Performances took place continuously at eight minute intervals, utilizing one hundred and fifty loudspeakers.

A culmination of mixed-media activity in connection with the World's Fair was reached at the Expo '70 in Osaka, Japan. The Pepsi-Cola Pavillion was a

120 ft. diameter geodesic dome of white plastic and steel, enshrouded by an ever changing artificially generated water vapor cloud. Essentially, this was a facility designed by an international team of technicians to achieve the ultimate in mixed-media environments. The facility included floating sound-emitting structures, elliptical mirrors, and various staging areas. At the heart of the facility was a state-of-the-art movable control console which could manipulate the lasers, loudspeakers, lights, and other resources of the pavillion.

Parallel to the World's Fair activities there emerged the festival concept, devoted to mixed-media activity in a variety of manifestations. Beginning in 1958, Ann Arbor, Michigan, became a center for mixed-media experimentation. The primary figures responsible for the Once Festival, which ran from 1961 to 1968, included Milton Cohen, Robert Ashley, George Cacioppo, and Gordon Mumma. More recently, the Electronic Music Plus Festival, founded by Gilbert Trythall in 1971, has become a national forum for the presentation of electronic music with dance, musical performers, or various forms of visual imagery. This annual festival has been held primarily at universities in the southeastern United States.

Gordon Mumma, an important figure in the live performance of electronic music has written:

With few exceptions, the technological resources that have nourished multi-media performance are electronic in origin. This electronic feasibility is due to developments in solid state physics ranging from the transistor to integrated circuitry. It is electronic control, of increasing complexity with decreasing costs, that has become artistically feasible. The logistics of multi-media projects are often collaborative efforts. But multi-media artists may also collaborate because they enjoy languages of various media, particularly the near universal language of electronic technology.⁵

⁵John H. Appleton and Ronald C. Perera, The Development and Practice of Electronic Music (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1975), p. 326.

CHAPTER II

ANALYSIS OF COMPOSITIONAL TECHNIQUES EMPLOYED
IN FIVE WORKS OF THE MIXED-MEDIA GENRE

Edgard Varèse was a pioneering figure not only in the development of contemporary instrumental music but also in electronic music. Varèse sought to expand the boundaries of traditional musical language using a concept he called "organized sound." Although Varèse saw in the future the inevitable development of electronic devices for the composing of music, his own practical work was confined to the recording of existing acoustical sounds with only spare use of electronic sound-producing devices. Despite his use of classical tape studio methods often associated with the term "musique concrete" in such works as Poème Electronique, he rejected the use of the term to describe his electronic music.

Poème Electronique, through the virtue of having been presented at the Brussels World's Fair of 1958, was exposed to a wider public audience than most of the electronic music produced since then. Varèse created Poème Electronique as the audio complement to the daily Philips Pavillion multi-media presentations. The specially designed pavillion featured a series of parabolic and hyperbolic curves resembling the inside of a cow's stomach.

Performances of Poème Electronique were accompanied by a series of projected images chosen by Le Corbusier. These images included photographs, montages, paintings, and text. No synchronization between music and visuals was attempted by the two artists. However from popular accounts of daily performances, accidental concordance was frequent. Poème Electronique, as presented in the Philips Pavillion, would fall into the environment category of

multi-media. Essentially the environment type of multi-media is a temporary one, even though Poème Electronique has gone on to have a musical life of its own.

Considered on a strictly musical basis, Poème Electronique is a very important work in the evolution of electronic music. Technically the work makes effective use of a host of tape studio techniques in the assembling of the compositional materials. Techniques include the use of frequency modulation, vocal and percussion instrument sounds, tape echo, and reverberation to simulate a large acoustical space.

The general approach to form is through the use of montage technique involving an alternation between chaotic, highly active sections with a rich palette of electronic and concrete sounds and sections of a calmer, minimal nature employing pure electronic sounds. One thread of continuity is a semi-vocal sound which rises in pitch microtonally. This sound occurs at three main structural points in the work; the most important is at the end of the work where it is used to create a "calm before the storm" effect preceding the climactic end.

Functioning as a total artist, Harry Partch was not only a composer but also a theorist, instrument builder, librettist, and author. Essentially self-educated, Partch in 1930 destroyed his entire output and began a lifelong crusade of musical revolution. Partch's musical approach from 1930 on began with a total rejection of twelve tone equal temperment, opting instead for his own version of just intonation using a 43 tone per octave scale. The instruments, which Partch designed especially for his music, made practical his radical approach to tonality and were impressive both in sight and aural production.

Crucial to Partch's aesthetic is the idea that a performance of his music was a synthesis of music, dance, mime, and theater, with his instruments an integral part of the stage setting. Partch objected to the specialization prevalent

in western musical culture. Writing in his book Genesis of a Music, Partch states:

The attitude of the musician on stage - what I refer to as attitudinal technique - is also relevant. At no time are the players to be unaware that they are on stage, in the act. There can be no humdrum playing of notes in the belief that because musicians are good their performance is ipso-facto masterly. When a player fails to take advantage of his role in the visual or acting sense he is muffing his part as surely as if he bungled every note in the score.⁶

Delusion of the Fury is an epic work lasting nearly eighty minutes. The work is scored for virtually the entire orchestra of instruments Partch built over a lifetime. Delusion of the Fury is divided into two acts, each act using subject matter drawn from two contrasting cultures; Act 1 is based on a Japanese story from the eleventh century, while Act 2 is based on an African folk tale.

Elements of mime and dance are essential to a production of Delusion of the Fury. Partch departs in many ways from the traditional approach of staging a dramatic musical work. The chorus is identical with the instrumentalists already involved in the work on stage. This would be possible in that the work requires a large number of players of whom only a few actually play together at any one time. The musical reality of Delusion of the Fury reveals a music that has absorbed influences of other cultures yet has not reduced itself to cheap imitation. Partch acknowledges his debt to exotic musics in this way:

Again, in Act 2 there is no attempt to depict African ritual, although this ritual as I have heard it on records and seen it on film, has obviously influenced my concept in this and other works.⁷

The musical textures encountered in Delusion of the Fury are always clear in terms of timbre and rhythm. This is in part owing to the fact that the instruments Partch uses have unique timbral spectra and decay characteristics.

⁶Harry Partch, Genesis of a Music (New York: Da Capo Press, 1974) p. 196.

⁷Ibid., p. 355.

A typical texture encountered in the work features a marimba-like instrument playing a rhythmic ostinato while a polyphonic string or keyboard-reed instrument generates a dense, shifting harmonic web.

The overriding emphasis of Partch's music is corporeality or actuality. A living experience was to Partch of much greater value than just reading or speculating about such matters.

A synopsis cannot in any way proxy for an actual production. Only theater will bring to life my concepts. And I must emphasize the fact that these verbal descriptions are intended merely as a small intimation of the art I envision.⁸

Reynold Weidenaar teaches electronic music at New York University. He composes primarily electronic music intended for synchronization with film and videotape media. Wavelines II (1979) consists of three abstract musical-visual compositions. In this work Mr. Weidenaar has chosen to maintain total creative control by producing both the music and the visuals. "Pulse," the opening movement, uses Lissajous figures generated by an oscilloscope for the visuals; these figures are produced by the same electronic signals that comprise the audio portion of the movement. The reliance on automatic means of producing a creative product is typical of many twentieth century compositional approaches. The composer makes the observation that relatively little motion can generate very complex visuals. It is interesting that a western composer would take an approach to multi-media that is very familiar in concept to the mystics of India and the East. Madhu Khanna writing in his book Yantra states:

⁸Ibid., p. 357

Recent research in cymatics (the study of the interrelationship of wave forms and matter) has shown remarkable results: The Hindu sacred syllable "Om" when correctly uttered into the tonoscope produces the circle "o" which is then filled with concentric squares and circles finally producing, when the last traces of "m" have died away, a yantra. Such complex energy transformations lend support to the conclusion that yantra (iconographic diagram) and mantra (sacred intonations) in the ultimate sense are one.⁹

Movement two, "Cadenza," is a brief display of episodic visual and musical phrases: there is no attempt to establish a close relationship between music and visuals. The final movement, "Close Harmony," features a gradual unfolding of musical and visual relationships. The synthesis in this movement utilizes the phenomena of beats which occur when tones of close frequencies are sounded. Wavelines II represent one of the directions multi-media has taken in recent years, where purely technical means are used to produce a creative product.

Maggi Payne studied at Northwestern, Yale, and Mills College, where presently she is on the faculty teaching recording engineering. The majority of her work is electronic music composed in collaboration with choreographers and video artists. Stylistically, her work IO for electronic sound and computer generated visuals is typical of the California approach to multi-media. In this work Payne produced the audio material while a video specialist created the computer generated visuals. The music of IO is not rhythmic or goal oriented. Emphasis is placed on extensive layering of polyphonic textures which shift slowly in terms of timbre and stereo location. The colorful visual material is random in nature with no obvious relationship to the music. This seeming unrelatedness of music and visuals may be attributed to the lack of sharp rhythmic transients in the music with which to coordinate the visuals. The visuals have a much higher activity rate than does the music.

⁹Madhu Khanna, Yantra (London: Thames and Hudson, 1979), p. 44.

Gilbert Trythall holds degrees from the University of Tennessee, Northwestern, and Cornell. His teachers in composition include David Van Vactor, Wallingford Riegger, and Robert Palmer. Mr. Trythall is a well known figure in the world of electronic music and is credited with being the founder of the annual Electronic Music Plus Festival. Currently he teaches at West Virginia University. His work The Terminal Opera may best be described as musical theater. It is a 25 minute work utilizing an electronic tape, 16mm film, 6 slide projectors, soprano, and a small cast of actors. The mood of the work is satirical, with subtle overtones of the threat of nuclear destruction.

Opening the work is an aria for soprano and synthesized string orchestra. The text portrays a woman reminiscing of experiences as a little girl. Elements of naiveté and parody give the aria a sense of bittersweet humor. Mr. Trythall remarked that in the opening aria he sought to conjure up the emotions of late romantic music such as that of Mahler.

The visuals which accompany the opening aria appropriately set the mood of this work; as the soprano sings, images of vintage dresses are projected onto her body. The projections enhance the music by suggesting a bygone era in a manner similar to the text. Musically, the remainder of the work draws on textures associated with pop music, with funky Hammond organ and drum set percussion prevalent. Spoken dialogue by the actors onstage assumes at times almost equal importance with the music and visuals. The characters are stereotypes of suburban Americans concerned with the more mundane affairs of life.

The Terminal Opera is an example of collaborative mixed-media in that Mr. Trythall was responsible for the musical portion of the work while Don Evans, a Nashville based video artist, produced the visual material. From the success

that The Terminal Opera enjoyed at its premiere during the 1982 Electronic Music Plus Festival it would seem that collaborative mixed media offers the advantage of being able to mount a production in size and scope that a single individual would be incapable of.

CHAPTER III

ANALYSIS OF COMPOSITIONAL PROCEDURES IN CELESTIAL MIGRATIONS,
FOR COMPUTER SYNTHESIZED TAPE AND
SYNCHRONIZED PROJECTIONS

The compositional approach used in creating Celestial Migrations was to a large extent influenced by the instrument that it was created on, the Synclavier II. Timbrally, the Synclavier II is capable of simulating various orchestral instruments, while rhythmically it is capable of executing performances humanly or manually impossible.

A primary compositional goal of Celestial Migrations was to create a music accessible to the lay listener, yet not sacrifice the complexity normally associated with concert music. To that end, use is made of easily identifiable melodic and metric devices at various places in the work. The opening section of the work is a waltz employing timbres resembling orchestral instruments and harmonies reminiscent of romantic orchestral music (see appendix). This opening section is significant on two levels. First, it sets the overall mood of the work by defining the harmonic language for later sections. Second, because of the Synclavier II's ability to store and recall timbres, it presents the orchestral palette which is used at important points in the work.

Balancing the moments in the work that simulate orchestral music are sections which take advantage of the rhythmic precision of the computer. These sections generally use a cyclic ostinato with superimposed arpeggios or repeated melodic figures of great speed. The sounds used in these sections tend to be enharmonic in nature and do not resemble known acoustic instruments.

The relationship of music to visual image is crucial in a multi-media

work. Generally, this composer sought to associate certain image types with music types. The images were created directly on 35mm film using a variety of burning, painting, and etching techniques (see appendix for examples). Of great help in accomplishing this pairing of music with visual image was a projector dissolve unit, which allowed both fast slide changes and more gradual, fluid changes resembling a motion picture. Sharp rhythmic attacks are associated with abrupt slide changes, and music of a more sedate character is associated with gradual slide changes.

The implications of working in mixed-media are numerous. If the composer desires to exercise total creative control he must either expand his creative activity into the area of the visual or else collaborate with another artist. The role that the composer plays in the mixed-media idiom has gone beyond the traditional position of musical inventor and notator. A mixed-media composer must be able to fill the roles of synthesist, recording engineer, visual artist, and even concert promoter. However, the advantage of working in so demanding a medium is that the composer is able to reach a more varied audience.

CHAPTER IV

CONCLUSIONS

The state-of-the-art in both electronic sound production and visual media has progressed to a point where the early speculations of Skryabin are now well within the realm of feasibility. However, the present level of technology is challenging composers to become well rounded artistic individuals.

It is now understood that multi-media work is more complex and demanding than was at first thought. Not only new technical facilities are needed but, more fundamentally, a commitment to basic understanding through training and experience with the material of allied arts ... intermedia will emerge as an important if not dominant (in view of its experimentally wholistic nature) form.¹⁰

The cliché of the isolated composer-artist creating in solitude is gradually being dissolved by the mixed-media art form. Technical demands in such fields as digital sound synthesis and computer generated visuals are becoming so keen that frequently an artist has to specialize in one field and collaborate with another artist to produce an acceptable product.

Each of the five compositions analyzed has had an influence on this composer in his own work. Varèse's work was influential as an early example showing the possibilities of the organized use of abstract sounds. The percussive sounds found in Partch's music were an inspiration to find new timbres which do not resemble known acoustic instruments, while a more transcendental approach was suggested by the work of both Payne and Weidenaar. Finally, the work of Trythall and Evans pointed out the value of comic relief in a contemporary mixed-media work.

¹⁰Thomas Everett, "Five Questions: Thirty-five Answers," The Composer, 9 (1977), p. 25.

In the creation of Celestial Migrations this composer was able to maintain creative control over both music and visuals by using sophisticated methods of sound generation but simpler methods of visual production. Celestial Migrations, when presented with its visual accompaniment, would fall into the environment category of mixed-media. Musically, the work is typical of a new trend in computer music towards the use of lush, orchestral textures and a simple harmonic language. Visually, the 35mm slides are kaleidoscopic in effect due to the mosaic-like nature which predominates the design.

Mixed-media may be viewed as a cultural reflection of modern life with the added benefit of having pointed many artists in other directions. An example of this is Manfred Eaton, who in 1971 published a book entitled Bio Music. Bio music is a class of electronic music that:

makes use of biological potentials in feedback loops to induce powerful, predictable repeatable, psychological/physiological states, which can be elegantly controlled in real time ... the hallucinogenic powers of electronic sensory feedback systems can be controlled and guided with a precision utterly impossible with chemical methods.¹¹

Speculation on the future of mixed media should include the hope that as artists become more competent in the technical disciplines involved, the creative product will show a correlative improvement. An increased availability of mixed-media products is a much desired situation anticipated in the future. The social potential of mixed-media, which is the ability of being able to reach a larger audience, will only begin to be realized when artists appreciate that technology is only a means to an end. An application of high artistic standards, not unlike that to which traditional art forms are subjected, will be crucial to the evolution of these art forms.

¹¹ Manfred L. Eaton, Bio Music, (Kansas City: Orcus Research, 1970), p. 2.

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APPENDIX

Waltz, opening music of Celestial Migrations

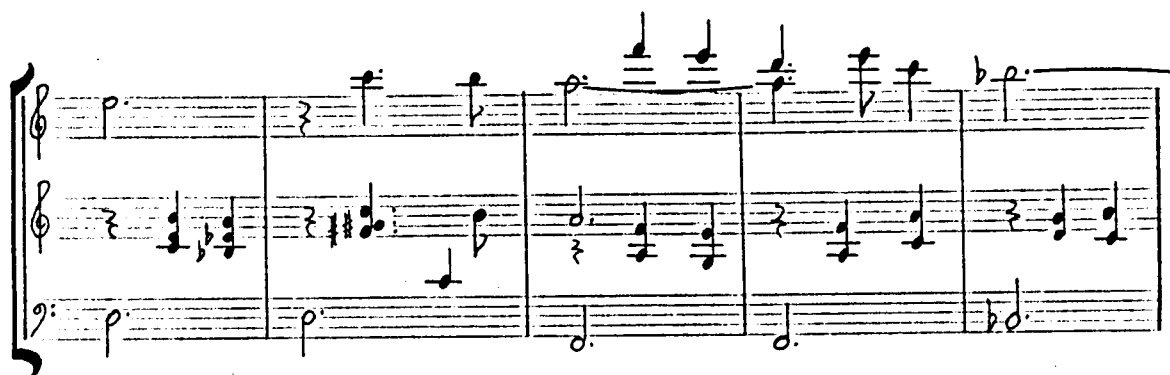
The first system of musical notation consists of three staves. The top staff is a single melodic line with a treble clef. The middle staff is a piano accompaniment with a treble clef, featuring a 3/4 time signature and the word "brass" written below it. The bottom staff is a piano accompaniment with a bass clef. The music begins with a rest in the top staff, followed by a series of notes and rests in the piano parts.

The second system of musical notation consists of three staves. The top staff continues the melodic line from the first system. The middle staff continues the piano accompaniment with a treble clef. The bottom staff continues the piano accompaniment with a bass clef. The music continues with various notes and rests, including a measure with a 4/4 time signature and the word "clar." written above it.

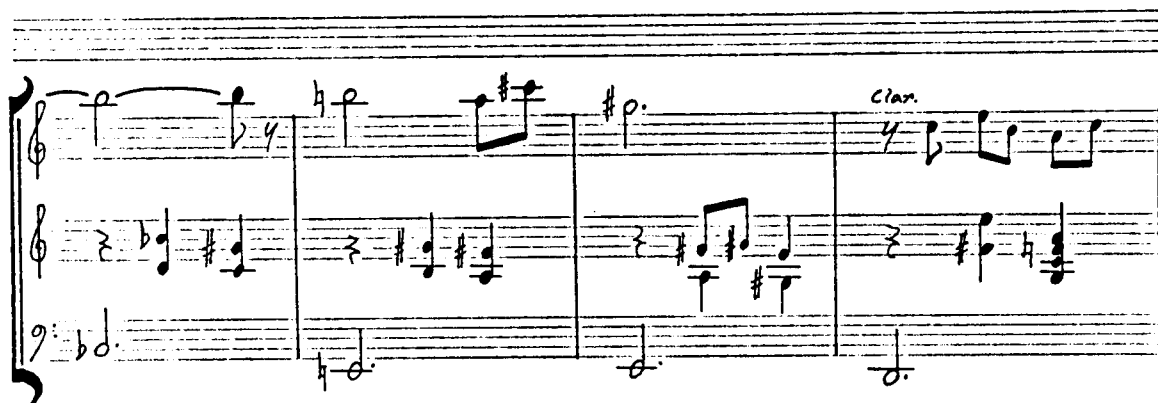
The third system of musical notation consists of three staves. The top staff continues the melodic line with a treble clef. The middle staff continues the piano accompaniment with a treble clef. The bottom staff continues the piano accompaniment with a bass clef. The music continues with various notes and rests, including a measure with a 3/4 time signature and a measure with a 4/4 time signature.

The fourth system of musical notation consists of three staves. The top staff continues the melodic line with a treble clef. The middle staff continues the piano accompaniment with a treble clef. The bottom staff continues the piano accompaniment with a bass clef. The music continues with various notes and rests, including a measure with a 3/4 time signature and a measure with a 4/4 time signature.

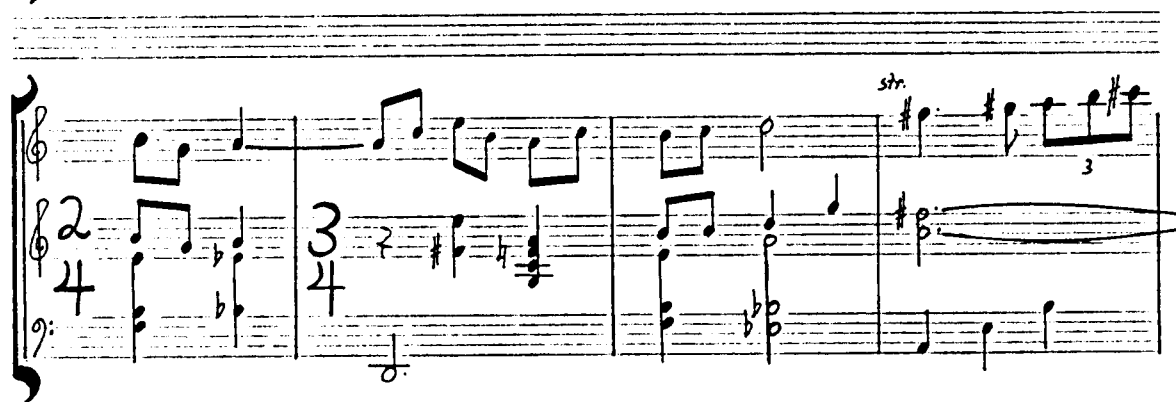
© 1983 Kevin R. Hiatt



First system of musical notation, featuring a grand staff with three staves. The top staff contains a melody with a half note, a quarter note, and a half note. The middle and bottom staves contain accompaniment with various chords and single notes.



Second system of musical notation, featuring a grand staff with three staves. The top staff contains a melody with a half note, a quarter note, and a half note. The middle and bottom staves contain accompaniment with various chords and single notes. The word "Clar." is written above the top staff.



Third system of musical notation, featuring a grand staff with three staves. The top staff contains a melody with a half note, a quarter note, and a half note. The middle and bottom staves contain accompaniment with various chords and single notes. The word "str." is written above the top staff.



Fourth system of musical notation, featuring a grand staff with three staves. The top staff contains a melody with a half note, a quarter note, and a half note. The middle and bottom staves contain accompaniment with various chords and single notes. The word "Clar." is written above the top staff.

Handwritten musical score for a system of five staves. The first staff contains a melody with a key signature of one flat and a 3/4 time signature. The second staff has a whole rest. The third staff has a whole rest. The fourth staff has a whole rest. The fifth staff contains a melody with a key signature of one flat and a 3/4 time signature. The system is enclosed in a large bracket on the right side.

Handwritten musical score for a system of five staves. The first staff contains a melody with a key signature of one flat and a 3/4 time signature. The second staff has a whole rest. The third staff has a whole rest. The fourth staff has a whole rest. The fifth staff contains a melody with a key signature of one flat and a 3/4 time signature. The system is enclosed in a large bracket on the right side.



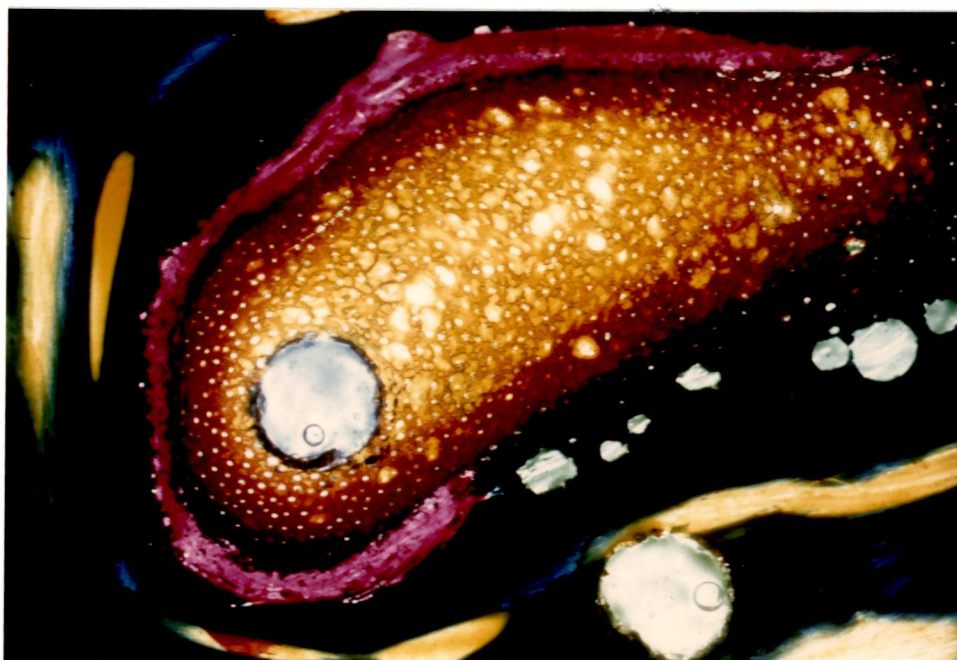
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Figure 1. Representative image belonging to the first section of the composition.



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Figure 2. Representative image belonging to the middle section of the composition.



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Figure 3. Representative image belonging to the final section of the composition.

VITA

Kevin R. Hiatt received his Bachelor of Music Degree in composition in 1979 from the University of Missouri-Kansas City Conservatory of Music. While at the Conservatory he was a member of the New Music Ensemble under the direction of Raymond Luedecke. In April of 1979 his Event For Chamber Orchestra was premiered by the Kansas City Philharmonic.

In August of 1983 he received a masters degree in composition at The University of Tennessee, Knoxville, where he was a graduate assistant in electronic music. Recently, his works have been performed at the Charles Ives Center for American Music, the 1982 Electronic Music Plus Festival, and the Florida State New Music Festival. In April of 1983 Mr. Hiatt was awarded the Stroud Festival International Composers Competition prize for his work Five Dances for a Masked Goddess.

Mr. Hiatt's teachers in composition have included Gerald Kemner, Raymond Luedecke, and Kenneth Jacobs. Published works by Mr. Hiatt are available from Ha-Mar Publications of New York.

Beginning in September of 1983, Mr. Hiatt will do doctoral work at the University of Miami where he will hold the position of Graduate Teaching Assistant in Music.