

Introduction

The task of studying to be a composer is a journey of the intellect and of the heart. During my undergraduate years, my compositional efforts were adventurous, but at times careless and lacking in meaning. I resolved to refine my skills and to discover the music that moves my heart and stirs my imagination once embarking upon my graduate studies. It is my hope that, at the conclusion of this journey of self-discovery, I will be a mature and thoughtful composer who is able to touch the lives of individuals who listen to my music.

During the course of my graduate studies, there have been instances where teachers have challenged me to be more thoughtful of my intentions. This has brought inner turmoil as I sought to find myself as a composer. I see now that these challenges and this inner conflict were positive catalysts which brought about a clearer vision of who I am as a composer and what I want to communicate with my compositions. The journey however is by no means completed. I am just now beginning to see the road that I must take.

I had been primarily interested in Jazz during my undergraduate years. As a result, I spent several years studying composition at Towson State University with Henry Levy before moving on to study with another notable TSU composer, Gordon Cyr. As composers these men were worlds apart in their musical styles. Hank Levy composed in the traditional idiom of the jazz big band. A great deal of his music was written in asymmetrical meters such as 7/8, 9/8 and 25/8. In contrast Gordon Cyr, was a composer skilled in the application of serial techniques and would have nothing to do with jazz harmonies or style. As a result of the influences of these instructors and my own personal tastes, I have always maintained a separate interest in jazz and what I would call contemporary art music.

As a professing Christian, I believe that whatever talents and abilities I possess are given to me by God and carry a responsibility to proclaim his glory and enrich the lives of other people. It is my hope that the risks taken and discoveries made during my time as a graduate student will serve to help me to more clearly reveal the character of God and the depths of his beauty.

Orthodox Christianity believes that there is one path to God. That path is a personal relationship with God that comes through believing in the work of Jesus Christ. Jesus himself stated, "I am the truth and the life, and that no one comes to the father except through me." I believe this fervently, but it has only recently begun to have an impact on my decisions as a composer. My faith has made me more aware of the need to use music as a means of communicating the nature of God.

It is my intention to be a vessel through which the love God has for all people and the beauty contained within his character can be illuminated and shared. I believe that the revelation of God's beauty can be found in works of contemporary art as well hymns, and more pop oriented styles of music.

The Pop music genre seems to be of value to the largest number of people in the church and society at large. For the church, this preference is reflected in the choice of a style of worship

music that is perceived as more accessible to people attending and visiting the congregation. While the quality of accessibility in worship music is an admirable one, it can leave the impression that anything outside the paradigm is unacceptable and worldly.

Many well-meaning people who have listened to some of my compositions cannot avoid the clichés of describing it as “haunted house music” because of a lack of tonal center. I believe the depths of the knowledge of God are, as the Bible says, “un-searchable.” Therefore I have resolved the dilemma of wanting to write modern art music in a world where it is not highly valued by knowing that the beauty of music (given by God) is also un-searchable. As I continue to grow as a composer I can also grow in my understanding of the character of God.

One of the most important shifts in my compositional thinking that has occurred over the course of my studies has been challenging the idea of a linear historical progression of musical periods, i.e. Baroque, Classical. The idea of linear historical development is well represented in the musical timelines found in educators’ catalogues, and in the way that instruction in history of any kind is delivered. It is based on the premise that one development leads to another and then another. I have begun to see music history as a space where there have been multiple streams of musical development occurring simultaneously.

A paper I wrote for Contemporary Music class examined the implications of multiple musical streams of development, as the class tried to reconcile the tumultuous musical events at the beginning of the Twentieth Century. I wrote:

The beginning of the Twentieth Century was a time of growth and expansion in European Music. During the years spanning 1900 to 1935 two distinct streams of compositional development emerged. One can be seen taking place in countries with long established musical traditions such as France and Germany. The other stream was developing in countries with blossoming [art] musical traditions like Russia, Hungary, and America.

The implication of that statement is that musical developments in history are always occurring, and that these streams of development are often independent of one another, not necessarily springing from one another. Within an isolated stream like the Second Viennese school of Schoenberg, Webern, and Berg, there is certainly precedence to believe that the music they were involved in as composers was proceeding in a developmental way. But the musical direction that these men pursued was not necessarily dependent on the developments of other composers, Stravinsky for example.

The question of finding a specific compositional direction that will have an influence on the music in the next century is no longer the question that I, as a composer, am asking. The question with which I am pre-occupied is summarized in another paper I wrote in Contemporary Music class three years ago. It reads:

The music of our time represents a world of complexity and diversity. John Adams states that what is fundamentally important is that composers write the music that means something to themselves, and that they don’t try and tell people what’s right and what’s wrong.

As we approached the end of the Twentieth Century, these streams seemed to overlap more than in the past. This merging of streams is well represented in two of my own compositions that will be discussed in this paper. These compositions are *Moments of Mediation* (fall of 2000) for electric guitar and computer, and *Two Worlds* (summer 2002) for chamber ensemble, jazz combo and computer. These two compositions represent much of what interests me in music as a composer.

Moments of Mediation and *Two Worlds* are compositions that represent a merging of musical worlds. In them there is a conscious dialogue with music from varying genres, ranging from Art rock groups of the 1970s like *King Crimson*, jazz composers like Chick Corea and Henry Levy, and early space music artists, *Tangerine Dream*.

Composers like Györgi Ligeti, Kaija Saariaho, Olivier Messiaen, Karlheinz Stockhausen, Edgar Varèse, and William Kleinsasser represent other musical worlds. These composers have been of tremendous inspiration in exposing me to a variety of compositional practices. Their work has exposed me to electronic timbres, methods for devising scales, cutting edge software programs, and broadened my definition of what it means to be a composer.

Many of these artists have dealt with electronic media and computers in order to engage various timbres and musical gestures. Because of the influence that their work has had on me, many compositions I have written in the last five years deal with electronic sounds in a variety of ways. *Two Worlds* features the integration of electronic sounds with acoustic instruments. *Moments of Mediation* is an attempt at a live electro-acoustic piece of music, rather than one that is presented on tape such as *Poème Electronique* by Edgar Varèse.

As I have reflected upon these two pieces of music, it is not difficult to understand their relationship to the big band pieces, serial compositions, and electronic music that I composed as an undergraduate student. The process of arriving at the point of writing the music that “means something to me” has not been the easiest of journeys. I have struggled with the difficulty of living with the wish to write music that reveals God’s beauty, knowing that my work is being misunderstood, as well as finding a meaningful way to merge the musical worlds that I have experienced. I believe these two compositions are a testimony to my success in this endeavor.

Moments of Mediation

Introduction

Moments of Mediation was written to explore two ideas. The first was the desire to bring the world of the studio-created electronic composition to live performance. The second was to write a composition that would continue to develop the vocabulary of new timbres acquired in the writing of two previous electro-acoustic compositions entitled *Rama* (1996) and *Transformations in a Palindrome* (1998).

Rama featured various analogue and digital synthesizers used to create a portrait of images inspired by the book entitled *Rendezvous with Rama*, written by Arthur C. Clarke. Images of

a lifeless object floating in the blackness of space inspired music that was atmospheric as opposed to having a sense of forward motion that music with a pulse implies. *Rama* was presented during a student composers' recital along with another electro-acoustic piece. After hearing both compositions, it was clear that this composition did not accomplish what I had wanted to achieve. The timbres and sounds used for *Rama* were not shaped and re-shaped in a developmental way. They were merely combined using different sounds created by different synthesizers.

Studies in various methods of synthesis were made for the composition of *Transformations in a Palindrome*. Several procedures for sound design were used in this composition, but Granular Synthesis became the most interesting, and was a technique used in many compositions after *Transformations*.

Granular Synthesis is a method for "building up acoustic events from thousands of sound grains."¹ The computer breaks up a sound into thousands of tiny particles (sound bursts with extremely short durations) that can then be rearranged. The smallest grains, having the duration of a millisecond, produce interesting noise-like timbres. In *Transformations in a Palindrome* this technique was used to process vocal and electronic sounds. These sounds were recombined and manipulated to create musical gestures with clearly defined sense of direction and duration.

In the fall of 2000, a paper entitled *An Overview of Max/MSP and Csound* was the result of an independent research project during which I studied two different applications used to process musical information as well as facilitate the combination of acoustic and electronic timbres. These programs are called *Max/MSP*² and *Csound*. It was during the composing of *Moments of Mediation* that inroads were made towards a greater understanding of these two applications.³

Formal Design

Moments of Mediation was composed for a solo electric guitar and computer, and is approximately twelve minutes long. The form for this piece was a modified version of a method called Moment Form, used by Karlheinz Stockhausen and others.

The New Harvard Dictionary defines Moment Form as "brief units of musical time defined by a particular process."⁴ Each snapshot of music is specific unto itself. A "moment" does not necessarily have to relate in any way to the context of the composition as a whole. In the *New Grove Dictionary of Music*, Stefan Wolpe, quoting Stockhausen, describes Moment Form as "forms in a state of always having already commenced, which could go on as they are for eternity."⁵ It appears that Wolpe is saying that unity in a piece of this nature does not come from a similarity of one event to another, but rather from the processes of development, within a single event or "moment" that is experienced as a self contained unit. A composition written in Moment Form can be heard as a series of unrelated events with an absence of a clear opening and closing, or beginning and end.

Example 3. Leake, *Moments of Mediation* (2000), Moment II, mm.9 –11

The image shows a musical score for two parts: E. Gtr. 1 and CPU. The E. Gtr. 1 part is written on a single staff in treble clef with a key signature of one flat (Bb) and a tempo marking of quarter note = 120. It contains five notes: Bb2, C3, D3, E3, and F3, all connected by a long, sweeping slur that extends across the entire duration of the moment. The CPU part is represented by a wavy line on a staff below the guitar staff, with a time signature of 0:36 and the text "WITHOUT DISTORTION" written above it.

The concept of connection was also addressed when composing music for the guitar through the choices of thematic material and the use of repetition. Examples 1 and 3 illustrate two phrases found at the beginning of each moment. Although dissimilar in their intervallic content, both examples are ascending gestures that end on an E natural. Sections containing related or repeated musical material were also a technique used to limit the number of new ideas appearing within each moment. One weakness found in *Rama* (previously discussed) was the fact that it contained too many unrelated musical ideas. Working within limits forced a more imaginative approach, bringing further clarity and connection to the music for the listener.

Additional Functions of the Computer Music

The music for the computer in *Moments of Mediation* was composed to supply connections between successive moments, to provide a textural background for various sections, and to comment on specific phrases performed by the guitarist. The guitar was used to input phrases from the piece into various programs for manipulation. Granular Synthesis was an important method in composing the computer music. The software that was used to perform this process was designed during composition lessons with the application Max/MSP.

Commentary in the computer music occurs when specific phrases of the guitar music are immediately followed by computer-processed versions of what was just heard. An example of this occurs about 2:12 into the piece near the beginning of Moment IV.

Example 4. Leake, *Moments of Mediation* (2000), Moment IV, mm.36 –38

The image shows a musical score for Example 4, titled "(MOMENT IV)". It consists of two staves. The top staff is labeled "E.GTR. 1" and contains a treble clef, a tempo marking of "♩ = 60", and a "FRONT" indicator. The music features block chords with various accidentals (sharps and flats) and dynamic markings like "36" and "mf". A dashed line below the guitar staff is labeled "WITHOUT DISTORTION". The bottom staff is labeled "CPU" and contains a box with "2:12" and "CUE #4" above a wavy line representing a computer-generated sound.

The block chords in the guitar music (Ex.4) are echoed by the computer and elaborated upon by transformations in the original pitch and length of the sound. While the sound is prolonged for an additional two measures, the guitarist adds a brief re-articulation of the fourth chord (Example.5). Counterpoint between the computer and the guitar is a common feature of several sections of the work.

Example 5. Leake, *Moments of Mediation* (2000), Moment IV, mm.39 – 40

The image shows a musical score for Example 5. The top staff is a treble clef with a melodic line of eighth and quarter notes, some with slurs. The bottom staff is a wavy line representing a computer-generated sound, similar to the one in Example 4.

The computer music also serves as a textural backdrop to the music of the guitar in several instances. Moment V begins with a broken chord *ostinato*.

Example 6. Leake, *Moments of Mediation* (2000), Moment V, mm.51-5

(MOMENT V)

mz

WITHOUT DISTORTION

3:14

CUE#5

For each successive repetition performed by the guitar, the computer adds another layer of the same ostinato. The texture thickens as two additional ostinatos appear in the computer music. (Example 7& 8)

Example 7. Leake, *Moments of Mediation* (2000), Moment V, mm.59-60

(VOICE 2)

mz

Example 8. Leake, *Moments of Mediation* (2000), Moment V, mm.67-68

(VOICE 3)

mz

The multi-voiced texture continues as an accompaniment to a guitar melody performed later in the moment.

Electronic Elements In The Guitar Music

In Rock music it is common practice for an electric guitarist to use effects pedals to alter the timbre of the instrument. The use of effects pedals and driving rhythms was an allusion to the edgy metallic feeling evoked by the music of an Art Rock group called King Crimson. *Larks Tongue in Aspic Part II*, a song on a 1972 recording of the same name, illustrates the kind of mood present in sections of *Moments of Mediation*.

The number of these effects was kept simple so the computer music could be more flexible. If the sound of the original source material fed into the computer had been too complex, the resulting timbres created from computer processing would not have enough variety for the purposes of interaction with the guitar. For this piece, the selection of effects required was reduced to three: a compressor, distortion pedal, and a delay.

A compressor is a signal processor controlled by a pedal used to keep the volume of the signal at a constant level without its normal decay to silence. It is also used to keep a signal's peak or maximum volume from rising above a certain volume. Due to the manner in which the strings are attacked there can be a great variance in volume from the electric guitar. The role of the compressor in *Moments of Mediation* was to keep the strongest signal possible going through the loudspeakers without any undesirable peaks in amplitude.

The distortion pedal is a signal processor that introduces a clipping effect to a sound. Each cycle of the sound wave produced by the guitar is clipped off at the amplitude extremes, introducing noise and harmonics that were not originally present. The timbre is amplified and increased in intensity introducing a fuzzy, harsh sound to the instrument's timbre. In *Moments of Mediation* the distortion pedal is used to give the linear melodies the complex timbre associated with Rock music. The distortion pedal also aided in keeping the perceived energy level of the melodic moments consistent with that of the chordal ones.

A delay processor is used to create repetitions of an input signal. The resulting sound is an echo lasting for a specified amount of time. For this composition the delayed signal was fed back into the input of the delay processor to allow the creation of a feedback loop.

When the output amplitude of the feedback loop is equal to its input, the resulting echoed sounds last for a longer period of time without a decrease in volume. Moment VIII features a feedback loop to create lush textures from single note events. The pitches are improvised by the guitarist and fed into the delay. (Ex. 9) The sustaining echoes are then distributed through various loudspeakers in the auditorium for a sound reminiscent of an antiphonal choir.

Example 9. Leake, *Moments of Mediation* (2000), Moment VIII, mm.113

0:15

FREELY IMPROVISE USING THE EBOW, THE GUITAR PART SHOULD SOUND AS IF IT IS A PART OF THE COMPUTER MUSIC'S TEXTURE AS OPPOSED TO BEING A MELODY WITH ACCOMPANIMENT.

E. Gtr. 1

181

WITH DISTORTION AND DELAY

CPU

Example 9 refers to an E-Bow, a device that produces sustained vibrations of the guitar string by reacting to the string and magnetic coils in the pickups. The volume is controlled by the proximity of the E-bow to the pickup and its relative height over the string. The use of the E-bow gives the guitarist an expressive capability because of the shaping of sustained tone and the ease with which the volume of the sound can be changed. The absence of the percussive attack of the plectrum gives the guitar's timbre a quality closer to that of the violin.⁷ In Moment VIII the E-Bow was used in conjunction with the delay to emulate the texture and timbre of the computer music.

Compositional Considerations

There are ten distinct sections in *Moments of Mediation* that cover a range of musical techniques. Among these: asymmetrical meters, ostinatos, microtonal intervals, free improvisation and the use of non-functional harmonies.

Asymmetrical meters are liberally used throughout the composition. They are employed during sections that have strong driving rhythms similar to those found in Rock Music. A meter of this type has a number of beats that is not divisible by two or three and its metric subdivisions generally fall in duple or triple groups (Example 10).

Example 10. Leake, *Moments of Mediation* (2000), Moment III, mm.22-23

The image shows a musical score for Example 10. At the top, a tempo marking indicates a quarter note equals 120 (♩ = 120). The score is divided into two parts: 'E.Gtr. 1' and 'CPU'. The 'E.Gtr. 1' part consists of two measures of music in treble clef, featuring a melodic line with a key signature of one sharp (F#) and a 1:22 time signature. The notes are beamed together and have a slur over them. The 'CPU' part is represented by a wavy line below a dashed line labeled 'WITHOUT DISTORTION'. There are also some handwritten markings like '22' and 'm±' near the guitar staff.

There are also instances when changes in the pattern of emphasized beats add some variations to repeating rhythms (Example. 11).

Example 11. Leake, *Moments of Mediation* (2000), Moment VI, mm.95-96

The image shows a musical score for Example 11. It features a 7/8 time signature. The score is divided into two parts: a guitar part and a CPU part. The guitar part consists of two measures of music, each containing a repeating rhythmic pattern of eighth notes. The first measure has an accent on the first beat, and the second measure has an accent on the third beat. The CPU part is represented by a wavy line below a dashed line labeled 'WITHOUT DISTORTION'. A time signature of 4:14 is written below the CPU part.

Examples 11-13 illustrate the use of rhythmic *ostinatos* as a key device of the composition. [An *ostinato* is a pattern that repeats and is a common compositional technique found in many types of music]. The pattern shown in Moment VI reoccurs with slight variations once again at the end of Moment IX, which is a climactic point in the composition.

Example 11 shows two measures of an *ostinato* in 7/8 that occurs at the beginning of Moment VI. The accents occur on beat one in the first measure and beat three in the second. During a repetition, additional accents are added on beat three in the first measure with the second measure remaining the same. (Example 12)

Example 12. Leake, *Moments of Mediation* (2000), Moment VI, mm.98-99

98

4:19

E.Gtr. 1

CPU

Additional accents give the music a sense of urgency and tension that leads to the closing and climactic Moment VI.

Example 13. Leake, *Moments of Mediation* (2000), Moment VI, mm.106-108

4:28

60

E.Gtr. 1

CPU

*

4:36

Example 14. Leake, *Moments of Mediation* (2000), Moment IX, mm.136-137

136

8:47

E.Gtr. 1

CPU

Although the chords contain notes that could be examined within the context of the diatonic system, the resulting analysis would not yield a structural progression.

Example 17. Leake, *Moments of Mediation* (2000), Moment I, mm.1-6, block chord reduction.

The image shows a musical staff with four block chords. Above the staff, the chords are labeled as follows: $D^{b9}(\#11)(\#9)$, $A^{MIN}(\#7)$, $E^{MIN7}(b5)$, and $C^{b6}(\#5)$. The first chord is marked with 'MM.1-6' below it, and the third chord is also marked with 'MM.1-6' below it. The notes for each chord are: $D^{b9}(\#11)(\#9)$ (Bb, Ab, Gb, Fb), $A^{MIN}(\#7)$ (G#, F#, Eb), $E^{MIN7}(b5)$ (D, C, Bb), and $C^{b6}(\#5)$ (B, Ab, G#).

Upon examination, Example 17 reveals two chords with ambiguous implications regarding a harmonic progression. The absence of a root and a third in the first chord suggests at least the additional given interpretation. The altered 3rd and 7th tones in the second chord make the function of the chord uncertain within a harmonic progression. Both suggested possibilities seem valid, given the fact that the surrounding texture in no way reinforces the harmony, and there are no reoccurrences of these two chords. The use of non - functional harmonies in Moment I reinforce the idea of having “self contained units” of music as previously discussed.

Microtones (intervals smaller than a semitone) are among the more interesting melodic features of *Moments of Mediation*. Some composers like Bela Bartók have used them within a diatonic musical context (*Sixth String Quartet*), while others like Harry Partch have developed their own tuning systems based on microtonal intervals.⁸

For this composition, microtones were used in the context of notes that were otherwise related to each other by half and whole steps. Bending the string to alter the pitch is a common technique for electric guitarists, but microtones are not commonly used. Robert Fripp, guitarist for the group *King Crimson* uses microtones extensively in *Starless*, a song on a 1974 recording entitled *Red*.

The middle of Moment III is one of two places in the composition that uses microtonal intervals.

Example 18. Leake, *Moments of Mediation* (2000), Moment III, mm.31-32

The musical score for Example 18, Moment III, mm.31-32, is presented in two systems. The top system is for the guitar (Gtr.) and the bottom system is for the computer (CPU). The guitar part features a melodic line with microtonal bends, indicated by arrows and wavy lines above the notes. The CPU part consists of a continuous, wavy, oscillating line. The time signature is 3/2. The measure numbers 31 and 32 are indicated on the left side of the score.

The guitarist plucks two pitches in succession, bending one pitch up and down (using microtones) while sustaining the other. This is a variant on a common gesture found in blues, rock, and other forms of music for the electric guitar. It is used typically during an electric guitar solo. This section of Moment III also illustrates one of the few instances where the guitar music stands out above the surrounding texture. A contrasting use of microtones can be found at the end of the work.

Example 19. Leake, *Moments of Mediation* (2000), Moment X, mm.167-169

The musical score for Example 19, Moment X, mm.167-169, is presented in two systems. The top system is for the guitar (Gtr.) and the bottom system is for the computer (CPU). The guitar part features a melodic line with microtonal bends, indicated by arrows and wavy lines above the notes. The CPU part consists of a continuous, wavy, oscillating line. The time signature is 3/2. The measure numbers 167 and 169 are indicated on the left side of the score.

The microtones in this case were used to blend the guitar with the computer music, which was made using the same pitch. The conclusion of this section firmly establishes the generally equal partnership between the guitar and computer music that has occurred throughout the work.

The clearest realization of blending the sound of the guitar with the computer music is found in Moment VII. This section reaches one of the goals of writing the composition, which was to develop the vocabulary of new timbres.

The guitar music for this moment was freely improvised. When a guitarist improvises, the parameters are usually harmonic and stylistic in nature. The music will contain a harmonic progression within a given style like swing, blues, or rock. A competent guitarist will have an idea of what an improvisation should sound like based on the conventions associated with these idioms. The nature of the improvisation for Moment VII was timbral rather than harmonic, so some general instructions were given in the score, as is shown in Example 20.

Example 20. Leake, *Moments of Mediation* (2000), Moment VII, 5:06

0:15

FREELY IMPROVISE USING THE EBOW, THE GUITAR PART SHOULD SOUND AS IF IT IS A PART OF THE COMPUTER MUSIC'S TEXTURE AS OPPOSED TO BEING A MELODY WITH ACCOMPANIMENT.

E.Gtr. 1

181

WITH DISTORTION AND DELAY

CPU

The image shows a musical score for Example 20. At the top, a bracket indicates a 0:15 duration. Below this, a text instruction reads: "FREELY IMPROVISE USING THE EBOW, THE GUITAR PART SHOULD SOUND AS IF IT IS A PART OF THE COMPUTER MUSIC'S TEXTURE AS OPPOSED TO BEING A MELODY WITH ACCOMPANIMENT." Below the instruction is a musical staff for "E.Gtr. 1" (Electric Guitar 1) starting at measure 181. The staff contains a sequence of notes: a quarter note G4 with a sharp sign, a quarter note A4 with a flat sign, a quarter note B4 with a flat sign, a quarter note C5 with a sharp sign, a quarter note D5 with a flat sign, a quarter note E5 with a flat sign, and a quarter note F5 with a sharp sign. Below the guitar staff is a dashed line, and below that is a staff for "CPU" (Computer Music) which contains a wavy line representing a texture. The instruction "WITH DISTORTION AND DELAY" is written below the guitar staff.

The pitch set was given to constrain the solo within a certain harmonic field that blended with frequencies of the computer music. From the written instructions, it is clear that the guitarist is to pay strict attention to the surrounding music in order to build an improvisation. As the section continues the only guide given to the guitarist is the passing of time.

Example 21. Leake, *Moments of Mediation* (2000), Moment VII, 6:10

0:15

CONTINUE

Gtr.

6:10

CPU

The image shows a musical score for Example 21. At the top, a bracket indicates a 0:15 duration. Below this, a musical staff for "Gtr." (Guitar) starts at measure 6:10. The staff contains a box with the word "CONTINUE" and a solid horizontal line extending to the right. Below the guitar staff is a dashed line, and below that is a staff for "CPU" (Computer Music) which contains a wavy line representing a texture. The instruction "CONTINUE" is written inside a box on the guitar staff.

Moments of Mediation achieves its goals. It brought the world of the studio created electronic composition to live performance and expanded my knowledge about composing electronic music. These ideas and many others were to find further expression in *Two Worlds* the final work composed as a part of my degree program.

Two Worlds

Two Worlds is a composition I have only recently completed. It is scored for chamber ensemble, jazz combo, voice, and computer. The main idea behind *Two Worlds* was to connect my compositional world with my faith as discussed in the introduction. I wanted to write music that revealed something of the beauty and character of God without simply attaching a religious label to the work.

In *Two Worlds* this was addressed in two ways. The first was to spend some time away from music, seeking to renew my relationship with God; the second was to end this piece with a vocalist singing. I decided the last moments of the music would be similar in structure to that of the biblical Psalms of King David. Many of these declamatory poems speak of David's deepest feelings of love for his God. I felt that I wanted to end this work in a similar fashion.

During the first meetings with Professor Kleinsasser in the fall of 2001, it became apparent that this was going to be a work of a significantly larger scale than anything I had yet attempted. This piece would employ the use of many of the compositional skills I had acquired as a graduate student. The working metaphor that surfaced was that this piece was going to be a summary piece. In this piece another mediation of difficulties began to surface having to do with the issue of musical styles.

Two Worlds is a work that encompasses many musical styles. The choice of the ensemble for the first two movements was inspired by *Quartet for The End of Time* (1919) by Olivier Messiaen. The third movement of *Two Worlds* was influenced by the overlapping gestures found in *Gesang Der Jünglinge* by Karlheinz Stockhausen. The meters and harmonies of the fourth movement of *Two Worlds* has much in common with the music of art rock groups such as National Health and King Crimson, as well as jazz composers like Chick Corea. The mood of the *Beyond These Shores* written by the Celtic rock group Iona partially inspired the style of Movement V. In a work where musical styles would be changing dramatically over the course of its development, making connections with past and future musical events helped the composition to maintain sense of continuity.

My interest in Jazz was presented in an earlier composition, written in March of 2000, entitled *Priest Lake*. This composition, scored for soprano saxophone, electric piano, bass, drums, and computer, was firmly entrenched in the modern jazz idiom but not necessarily akin to the Bop tradition of Rhythm changes, I- VI- II -V -I, and II- V- I.

The harmonies in *Priest Lake* are more like streams of color over which melody and rhythm occur (Example 22).

Example 22. Leake, *Priest Lake* (2000), mm 49 –57

The image shows two systems of musical notation for a piano part. The first system, labeled '49', begins with a tempo marking of quarter note = 330 and the instruction 'With Energy'. It features a 4-measure introduction in the right hand, followed by a 17-measure section in the left hand marked with a forte (*f*) dynamic. The second system, labeled '55', continues with a mezzo-forte (*mf*) dynamic. The score is written in treble and bass clefs with a key signature of two sharps (F# and C#).

Example 22 shows a section of the piano part written in 17/8 meter. This metric pattern was presented to the performers using a repeating cycle of divisions that were as follows: 2+3+2+3+2+3+2, 2+3+3+2+2+2+3, with a third pattern inserted unpredictably: 2+3+2+3+2+2+3. Additional metric cycles such as 15/8 and 11/8 are used throughout the work giving the meter and rhythm a dynamic feel (Example 23).

Example 23. Leake, *Priest Lake* (2000), mm 49 –57

The image shows two systems of musical notation. The first system, labeled '60', shows a melodic line in a treble clef with a key signature of two sharps. The second system, labeled '61', shows a continuation of the melodic line. The notation includes various rhythmic values and rests, illustrating the complex 17/8 meter.

The use of rhythmic cycles was also used in a piece entitled *Cyclic Expansion* (1997) written for solo soprano saxophone. The beginning rhythmic cycle from *Cyclic Expansion* is shown in Example 24.

Example 24. Leake, *Cycles* (1997), mm 1-6

The image shows three staves of musical notation in 6/8 time. The first staff begins with a mezzo-piano (*mp*) dynamic marking. It features a melodic line with a trill (*tr*) over a note. The second staff continues the melody with a triplet of eighth notes. The third staff also continues the melody, featuring another trill (*tr*) over a note. The key signature has one sharp (F#).

In a previous paragraph the working metaphor of a summary was mentioned. I felt that there had to be more to the composition than just a collection of musical techniques; the music had to have its own story as well. I was not necessarily interested in writing programmatic music, but the metaphor of storytelling is well established as a way of creating a connection to the music for the listener.

The concept of creating connection between a piece of music and the metaphor of stories inspired me one day as I was reading *Tree and Leaf* an essay by J.R.R. Tolkien, in which he expounds on his own particular theories of story telling. In one section of the essay, called *On Fairey Stories*, he defines fantasy as a “sub creative art, the goal of which is to make a secondary world which is marked by the inner consistency of reality.”⁹

Two Worlds was not written to create or represent a literary story, but rather to use the concept of a literary story as a means of relating to the development of musical characters. This approach is in contrast to the 19th Century European practice of program music found in works such as *Symphonie Fantastique*, by Hector Berlioz, in which the music is developed in narrative coordination with a literary story. *Two Worlds* became a 21-minute composition in five movements that has two distinct musical characters.

The heart of the first musical character serenity and stillness, is music of reflection and meditation that contains small shifts in harmony, melody, rhythm, and timbre. This state of quietness is designed to create an overall effect of wonder and contentment within the musical world it occupies. However, even this serene world is not without an underlying tension that threatens to come to the forefront.

The second musical character Wild at Heart, comes from the title of a book by John Eldredge¹⁰, which I read during a summer of reflection. This musical character is unpredictable, chaotic, and at times frightening. This character presents music that is

untamable in its aspirations to push the boundaries between noise and musical sound. Its overall effect may be one of profound shock and disbelief.

These two diverse musical characters are represented by two ensembles, equally different in their traditional roles. The first ensemble consists of clarinet, piano, violin, and cello. The second ensemble is a jazz combo that consists of an alto saxophone, synthesizer, electric guitar, electric bass, drums, and a vocalist.

The computer is used as a unifying element throughout the composition. It provides commentary and interplay with the players in both ensembles. In a section realized for the computer alone, (starting at 4:27 and lasting through 8:48) the computer music forms a connecting bridge between the musical style of the two ensembles and the characters of stillness and chaos.

The structure of *Two Worlds* with its five movements each based on the musical characters of serenity, and wild at heart, is pictured below in Table 1. From this point on the chamber ensemble will be classified as Ensemble 1, and the jazz combo as Ensemble 2.

Table 1 Leake, *Two Worlds* (2002), overall structure.

I	II	III	IV	V
Serenity Ens.1	Chaos Ens.1	Both Computer	Chaos Ens.2	Serenity Everyone
0-2:08	2:27-3:51	4:27-8:48	8:49-13:50	14:51-21:00

As mentioned above, the computer music is used as a unifying element throughout the composition. On a small scale, it provides transition between movements that are adjacent to one another. In a larger context, the computer movement (III) provides a bridge between the musical styles of the chamber ensemble and the jazz combo, and as a connection between serenity and chaos. The expanded form just described is presented in table 2.

Table 2

I	Transition	II	Transition	III	IV	Transition	V
Serenity Ens.1	Towards Chaos Computer	Chaos Ens.1	Towards Serenity Computer	Serenity & Chaos Computer	Chaos Ens.2	Towards Serenity Computer	Serenity Everyone
0-2:08	2:09-2:26	2:27-3:51	3:52-4:26	4:27-8:48	8:49 -13:50	13:51-14:50	14:51-21:00

The discussion that follows, clarifies important elements of style in each movement and shows how they relate to the design shown in Tables 1 & 2.

As previously stated, the opening two movements of the composition are scored for the chamber ensemble and computer. The first movement is approximately 2:08 seconds long and is divided into two sections. During the first section, the character of Serenity is established by static harmonies that contain gradual changes occurring in measures 3 to 11 in the piano part.

Example 25: Leake, *Two Worlds* (2002), Movement I mm. 1-8

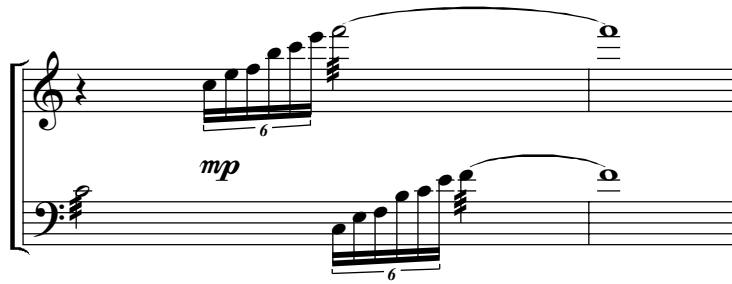
The image displays three systems of musical notation for piano. The first system covers measures 1-3, the second covers measures 4-6, and the third covers measures 7-8. Each system consists of a treble clef staff and a bass clef staff. The music is characterized by static harmonies with gradual changes. Pedal markings (PED.) and asterisks (*) are used to indicate specific performance instructions. The notation includes various note values, rests, and dynamic markings.

The compositional technique of static harmony with gradual changes was borrowed in part from *Summer Morning by a Lake*, the third movement of *Five Pieces for Orchestra* (Op. 16) composed by Arnold Schoenberg in 1909. A more recent composition that uses a similar technique is Movement I of *Sinfonia* composed by Luciano Berio in 1968.

After the establishment of serenity, there is a brief pause in the ensemble as the computer provides an interlude that is based on a flourish of slightly increased activity among the strings and clarinet occurring in measures 12 to 15.

This is the first of many connecting sections of transitional music provided by the computer. Table 2, on page 20, shows where the transitional sections of computer music occur as they connect whole movements. Measures 15 through 20 form a section of computer music used to connect sections within a single movement. The computer music was created from a brief imitative passage in the string parts occurring in measures 13 and 14.

Example 26: Leake, *Two Worlds* (2002), Movement I mm. 13-14



The music for the second section of Movement I is slightly more aggressive providing a foreshadowing of what is to follow in Movement 2. This technique is an important element for drawing musical connections to events that have not taken place.

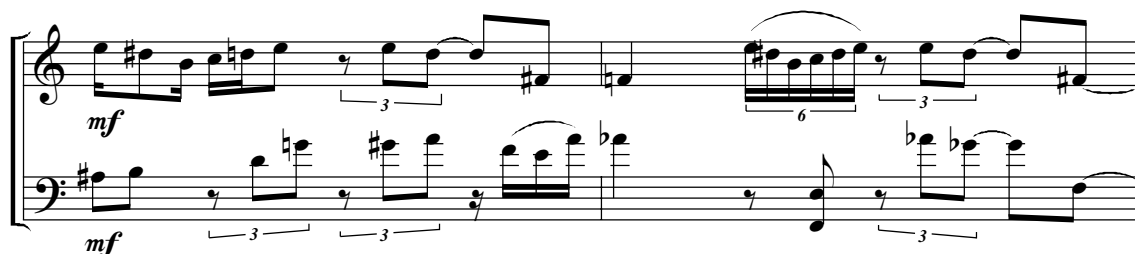
The wild at heart character of makes its first full appearance in Movement II. Due to the fact that the music in this movement is more chaotic, the compositional approach to the creation of the music for Movement II was paradoxically more methodical. The music for Movement II began in proportional notation with free meter. Using this graphic representation of musical events as source material, an improvisation was recorded into the computer using a MIDI keyboard. The recorded improvisation was then transcribed into standard notation using *Finale* notation software.¹¹ Example 27 shows the initial transcription of measures 7 and 8 of the string parts.

Example 27: Leake, *Two Worlds* (2002), Movement II sketches mm. 39-40



After the initial transcription, many of the rhythms were revised to make them more playable for the musicians who would be performing the parts.

Example 28: Leake, *Two Worlds* (2002), Movement II mm. 39-40



For the next step in composing Movement II, I made another recording of a realization of the score using MIDI technology and sampled instruments to represent each part as accurately as possible.

Use of the compositional process described above enabled the combination of the techniques of spontaneous invention and careful revision and editing. This is a relationship that will also be seen later in other movements of the composition.

Example 28 illustrates the types of rhythms found in Movement II. As the movement progresses counterpoint between the various instruments causes the erratic feeling of this section to intensify. (Ex. 29)

Example 29: Leake, *Two Worlds* (2002) Movement II Measures 11-12

The musical score for Example 29 consists of five staves. The top staff is a single melodic line. The middle two staves are grouped by a brace and represent piano accompaniment. The bottom two staves are also grouped by a brace and represent another melodic line. The music is in a minor key with a complex, syncopated rhythm.

The instruction given to the performers regarding Movement II is to play with “agitated energy.” The movement is organized into three declamatory sections that can be likened to a shouting match. As the energy builds to a climax within each section there is an interruption of the argument with a short accented motive. The first of these occurs in measure 53 and is shown in Example 30.

Example 30: Leake, *Two Worlds* (2002) Movement II Measures 53-54

The image shows a musical score for two systems. The first system consists of a single treble clef staff with a melodic line and a grand staff (treble and bass clefs) with a complex, multi-layered accompaniment. The second system also consists of a single treble clef staff with a melodic line and a grand staff with a complex accompaniment. The music is written in a key with one sharp (F#) and a 3/4 time signature. The notation includes various rhythmic values, accidentals, and dynamic markings.

The interruption motive shown in Example 30 was inserted as a place for the music, performers, and listeners, to catch their breath or get their bearings before the music proceeds to the next chaotic section. After two more sections of agitated music, Movement III is brought to a close with a transposed version of the interruption motive pictured in Example 31.

Example 31: Leake, *Two Worlds* (2002) Movement II mm.81-82

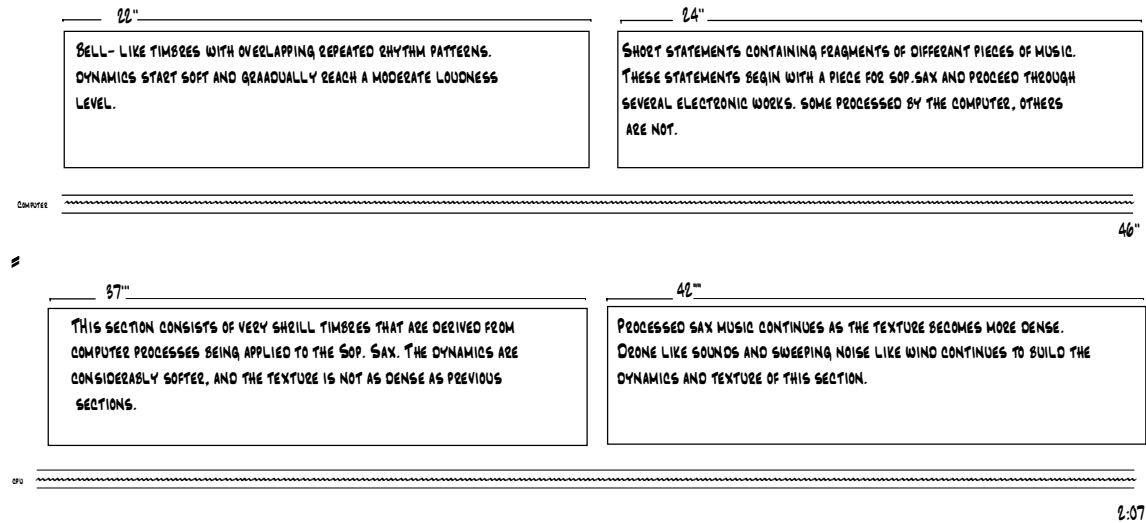
The image displays a musical score for Example 31, consisting of five staves. The top staff is a single melodic line in treble clef with a key signature of one sharp (F#) and a 4/4 time signature. It features a sequence of eighth notes with accents, starting on a half rest. The second staff is a complex texture with multiple voices in treble clef, including a melodic line and several chords with vertical dots indicating sustained notes. The third staff is a bass line in bass clef with a key signature of one sharp, consisting of eighth notes with accents. The fourth staff is another melodic line in treble clef with a key signature of one sharp, featuring eighth notes with accents. The fifth staff is a bass line in bass clef with a key signature of one sharp, consisting of eighth notes with accents. The music is characterized by a rhythmic pattern of eighth notes with accents, creating a driving, pulsating effect.

The computer music is used as a transition between the musical characters wild at heart and Serenity that occurs immediately following the last “interruption” motive. The music for this transition lasts approximately 1:30.

The main idea behind Movement III relates back to the original metaphor of this piece as a summary. The musical material was taken from recordings of pieces composed as part of my graduate degree. Using the computer, fragments were created of these recordings and used as a basis for the music.

The first 2:30 focuses on music that was stylistically close to the music of movements II and I. Example 32 shows the general progression of events for the conductor and performers to follow. This description was included in the score so that the musicians and the conductor can stay oriented to the flow of events in the music.

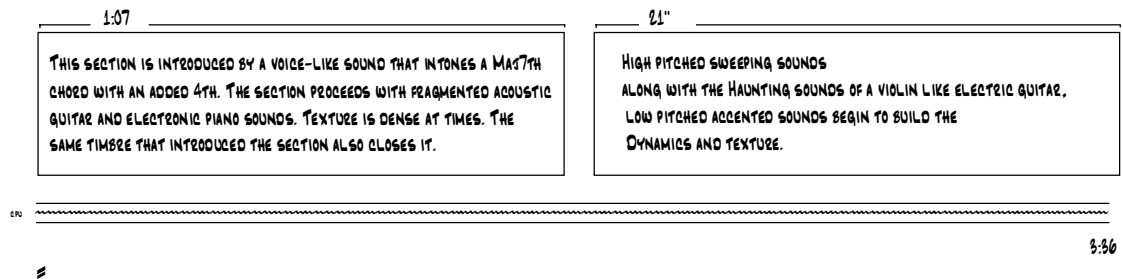
Example 32: Leake *Two Worlds* (2002), Movement III :00-2:07



From 0:47 to 2:07, the soprano saxophone music was taken from my earlier composition *Cyclic Expansion* and was designed to keep the mind of the listener focused on the timbres of the acoustic instruments of the chamber ensemble. The music of this section has a feeling of disorientation. Phrases overlap but do not have a flow that takes you from one to the other. At times the sound of the saxophone is discernable and at other times it is not. By utilizing overlapping quotes of different compositions, I created a musical collage that reinforced the metaphor of summary that I wanted to be the main idea of Movement III.

From 2:08 to 3:14 the character of serenity reappears in the form of processed music from my composition *Priest Lake* composed in March 2000.

Example 33: Leake *Two Worlds* (2002), Movement III, 2:08 –3:36



During the first 1:07 of this portion of Movement III, there is an interruption to the serenity. The fragmented acoustic guitar and electric piano music come from a short ballad that I composed for my mother's funeral during the summer of 2001. Musically speaking this

section has a calmness that comes from the gentle melody of the original material. In this instance, I used Granular Synthesis to prolong and stretch a single musical gesture. The original melody is still discernable, but has been warped and twisted as a way of illuminating my feelings about my mother's untimely death. This section is something of a paradox because of the way that sadness enters into an otherwise peaceful mood.

During the last 2:00 of Movement III, the musical material begins to shift from the acoustical style of the chamber ensemble to the style of the jazz combo as the texture becomes more chaotic.

Example 34: Leake *Two Worlds* (2002), Movement III 3:37 -2:07

418

During the last 0:30 of the section, foreshadowing is used once again as recorded music from Movement IV is intermingled with the ever-increasing chaos of the texture. Movement IV is an arrival point in the composition. Through the music of Movement III, the music has traversed the distance between the styles of the chamber ensemble to that of the jazz combo.

The music of Movement IV is aggressive and active. Many of the compositional ideas used during *Priest Lake*, such as asymmetrical meters, streams of harmony, and the integration of computer music, have resurfaced during this Movement. Example 35 illustrates how these techniques are used in the beginning of Movement IV.

Example 35: Leake *Two Worlds* (2002), Movement IV mm. 103-105

The main melody of Movement IV develops in a way that is similar to a standard jazz composition. A feature of many standard jazz compositions is a main melody with an accompanying structural progression. After the melody has been heard, the chord progression that accompanies it is often used as a basis for improvisation by a solo instrumentalist.

The main melody for Movement IV is written in AB form and the included alto saxophone solo is based upon the chord changes of the melody. Example 36 is a partial representation of the chord progression for the alto saxophone.

Example 36: Leake *Two Worlds* (2002) Movement IV Alto Saxophone solo mm.164-170

Example 37 illustrates a short recurring motive that was used as a musical cue to signal the change from one section to another. The use of motivic devices is intended as a clear way of

giving listeners a musical marker showing how far they have traveled in their listening journey.

Example 37: Leake *Two Worlds* (2002) Movement IV Recurring Motive, mm.110 and 111



This use of traditional song form creates a sense of stability for this section and brings the feel of the composition closer to that of *Serenity* than *Chaos*. In measure 199, this stability begins a process of erosion that results in the culminating and most chaotic section of the work.

The process of erosion is accomplished through fragmentation and decreases in the specifics of notational directives. The guitar solo begins the fragmentation process that lasts from measures 200 to 215. Instead of the usual solo along with the chord changes of the melody, the guitar solo is composed of fragmented melodic motives performed during earlier sections of Movement IV. The first two measures are shown in Example 38.

Example 38: Leake *Two Worlds* (2002), Movement IV Guitar Solo mm. 200-202



This fragment of the solo was taken from several measures near the beginning of the movement. (Example 39 & 40)

Example 39: Leake *Two Worlds* (2002), Movement IV guitar mm. 94-95



Example 40: Leake *Two Worlds* (2002), Movement IV Guitar Solo mm. 200-202

(HEAVY DISTORTION)

85

The synthesizer accompaniment is based on rhythmic variation of the chords used in the introduction.

Example 41: Leake, *Two Worlds* (2002), Movement IV Synthesizer Chord Progression for the Introduction

(RHODES PIANO PATCH)

85

Example 42 shows the rhythmic variation of these chords for the beginning of the guitar solo.

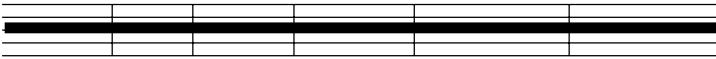
Example 42: Leake, *Two Worlds* (2002), Movement IV Rhythmic Variation of the Introductory Chord Progression, mm.200-203

85

The process of erosion reaches the next phase of fragmentation in measure 231 with a less directed improvisation by the guitar, an increase in improvisation for the drums, and a sudden change in timbre for the synthesizer from that of a Rhodes piano patch to the haunting sounds of Mellotron strings. This section lasts through measure 262.

Example 43: Leake *Two Worlds* (2002) Movement 4 mm. 231-240

CONTINUE IMPROVISATION IN THE ESTABLISHED STYLE. GIVE THE SOLO A QUALITY OF FALLING INTO FRENZY, AND BUILDING IN INTENSITY. FREE USE OF EFFECTS.



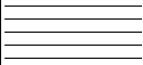
216

Example 43 makes reference to a less directed improvisation that implies a lack of notational specificity rather than an absence of compositional direction. The improvisation box, written for the guitar, gives a very specific idea as to the nature of the solo without prescribing the exact method for reproducing the given verbal directives.

The use of fragmentation and the removal of notational specifics was the compositional solution I used to usher in the final appearance of the character Wild at Heart. As the final step in the process of the erosion of notational specificity, an improvisation box was given to every member of the jazz combo as a basis for a final improvisation which lasts for approximately 2:00 before an explosive finish as the energy of the movement is exhausted. Example 44 shows the directions given to the electric bass.

Example 44: Leake *Two Worlds* (2002), Movement 4 Bass Improvisation, mm.278

CONTINUE TO IMPROVISE WITH A GROWING SENSE OF FRENZY.
 USE A FREE MIXTURE OF NON TRADITIONAL CHORDS
 AND SINGLE NOTE GESTURES.

45"


278

The composing of the improvisational section that I have just described was very instructive for me as a composer. As an undergraduate, I had experimented with group improvisation in a composition entitled *Suite for Eternity* (1989) for piano, bass, guitar and percussion. At the time, group improvisation was just a fun experiment and fun to play. As an undergraduate

student, I had also used group improvisation as a way of composing something that sounded rhythmically complex without engaging the difficult process of working those rhythms out notationally. In composing *Two Worlds*, difficult rhythms were worked out in a process earlier in the discussion of Movement II.

Consideration of the music that needed to occur between the jazz section of Movement IV and the very tranquil music of Movement V led me to conclude that this was an opportunity for me to break out of my comfort zone as a composer.

By compositionally moving from a level of prescribing everything through standard notation to the level of prescribing almost nothing, the use of group improvisation was a very logical step in the development of the last 2:00 of Movement IV.

Movement V of *Two Worlds* represents the final appearance of Serenity and the end of the work. I wanted to end *Two Worlds* in a musical language that was the most familiar to the audience for my recital in April. In addition I wanted to be sure that the final moments of the work had a connection for all my listeners, so I chose to end the work using tonal harmony. I also felt the composition needed a movement of peace and restfulness after the chaos that was present at the end of Movement IV. The challenge of writing the final movement was to utilize tonal language in a way that was not trite or excessively emotional in a superficial, romantic sense, and to fit this language logically into the grand design of the piece.

The manner in which I compositionally faced this challenge was to write Movement V in a free flowing style very similar to Moment 7 of *Moments of Mediation*. I tried to think of this section texturally by composing short events that overlapped one another.

Example 45: Leake *Two Worlds* (2002) Movement V mm. 306-312

The image displays a musical score for Example 45, Movement V of *Two Worlds*, measures 306-312. The score is written for a piano and consists of six staves. The top staff is the right hand, and the bottom staff is the left hand. The music is in a key signature of one sharp (F#) and a common time signature. The score features a variety of rhythmic patterns, including eighth and sixteenth notes, and rests. There are several measures with whole notes and half notes, often with long, sweeping slurs. The overall texture is complex and layered, with overlapping rhythmic events. The notation includes dynamic markings such as *mf* and *ff*, and articulation marks like accents and slurs. The piece concludes with a final cadence in the last measure.

This method was an approach used in composing the computer music for Movement III. In that context overlapping events that had been used to create chaos, while in the context of Movement V, they were being used to create calmness.

The lack of momentum in Movement V was accomplished by using a very slow tempo (55 beats per minute), and staggering the entrances of the instruments of the ensemble. There were two parts that were continuous, the voice and the bass.

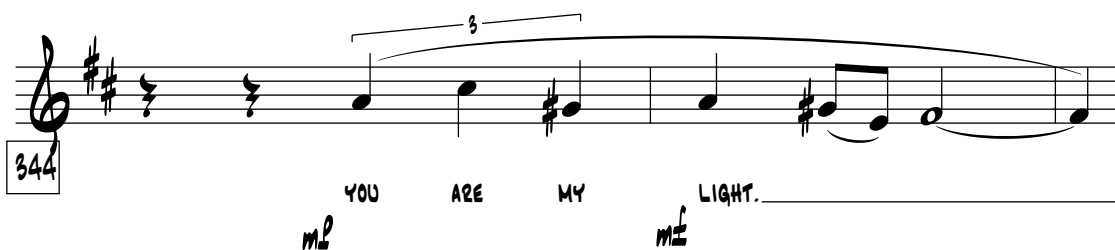
The bass line is typically used to propel music by establishing the downbeat and implying the harmony. Bass notes in Movement V are placed on weak beats or tied across the bar lines so that the harmonic implications are clouded. (Example 46)

Example 46: Leake *Two Worlds* (2002) Movement 5 bass, mm. 316-318



The vocal line for Movement V has some unique challenges: It is always the part with the most movement in pitch and rhythm, and it is very exposed in the texture because it is not doubled by any other instrument. (Example 47)

Example 47: Leake *Two Worlds* (2002) Movement 5 voice, mm. 344-345



The lyrics are also very important in communicating the serenity and calmness of the movement. The beginning stanzas of the lyric are like a whisper in the ear of someone standing at a distance from their God. That distance implies a feeling of being lost, which is a feeling closer to chaos than to Serenity.

*I am the song
I am the light
I am the reason
I am life*

In the second stanza the person to whom God is speaking gets a further glimpse of the depths of his beauty.

*Heard in the quiet of the morning
Perceived within a cool refreshing wind
The Universe reveals
In my heart you've torn the veil
I hear your voice
And it's calling me, calling me home.*

In the final stanzas, there is a personal response of worship returned to God.

*You are my Song of Songs
You are light from light
You are my reason
You've given me new life.*

The redemptive quality of these lyrics echoes the redemption and satisfaction of the accomplishments that I have achieved through the work of attaining a Masters of Music Degree.

While composing *Two Worlds* and *Moments of Mediation*, I have been reminded of a statement that I read in the book *Wild at Heart* that has given me perspective on my mission as a composer. "Don't ask yourself what the world needs. Ask yourself what makes you come alive, and go do that, because what the world needs is people who have come alive."¹²

My final resolution of the difficulties involved in being a Christian who wishes to glorify God and be a blessing to others through contemporary art music has been to embrace the musical desires that I have been given. By being true to myself, I believe that I am being true to the person God intended me to be, and I am hopeful that the future holds many exciting compositional opportunities.

End Notes

¹ Curtis Roads, *The Computer Music Tutorial* (Cambridge, Massachusetts: MIT Press, 1998) p.168.

² Christopher Dobrian, *MSP: The Documentation* (San Francisco, California: Cycling74 1998)

³ Richard Boulanger, *The Csound Book: Perspectives in Software Synthesis, Sound Design, Signal Processing, and Programming* (Cambridge, Massachusetts: MIT Press, 2001)

⁴ Don Michael Randel, ed., *The New Harvard Dictionary of Music* (Cambridge, Massachusetts: Belknap Press of Harvard University Press, 1986) p.505.

⁵ Stefan Wolpe, "Musical Time and Temporality", *The New Grove Dictionary of Music Online ed.* L.Macy (accessed 08/24/02) <http://www.grovemusic.com>

⁶ Karlheinz Stockhausen, *Momente* (Nonesuch Records H-71157 1965)

⁷ <http://www.ebow.com>

⁸ Leon Dallin, *Twentieth Century Composition: A Guide To The Materials of Modern Music* (Dubuque, Iowa: WM.C. Brown Company Publishers., 1974) p.222

⁹ Kurt Bruner and Jim Ware, *Finding God in The Lord of The Rings* (Wheaton, Illinois: Tyndale Publishers inc., 2001) p110.

¹⁰ John Eldredge, *Wild at Heart: Discovering The Secret of a Man's Soul* (Nashville, Tennessee: Thomas Nelson Publishers, 2001)

¹¹ <http://www.codamusic.com>

¹² John Eldredge, *Wild at Heart: Discovering The Secret of a Man's Soul* Nashville, Tennessee: Thomas Nelson Publishers, 2001) p.200