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Supervisor: Prof. Christopher Butterfield

ABSTRACT

This dissertation is a reflection on *The Art of Light*, a piece written for orchestra by Mary Stiles. The document discusses formal aspects of the work as well as the composer's thoughts on the compositional process. Aspects of time as they relate to the piece are examined in detail, as are the composer's use of simplicity, orchestration, and motivic development.

Examiners:

---

Prof. Christopher Butterfield, Supervisor (School of Music)

---

Dr. Harald Krebs, Departmental Member (School of Music)

---

Prof. Michael Longton, Departmental Member (School of Music)

---

Dr. John Tucker, Outside Member (Department of English)

---

Prof. Rudolf Komorous, External Examiner

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The piece entitled *The Art of Light* is dedicated with great love to my grandmother, Anna Margaret Purbaugh. Peace, Grandma.

## I. Introduction

This document is an accompaniment to the principal part of my dissertation, an orchestral piece entitled *The Art of Light*. *The Art of Light* was begun in February or March of 1998 and was completed in June of 1999. It is scored for orchestral strings, double woodwinds (with the exception of one oboe), a modified brass quintet (using two horns instead of two trumpets), pitched percussion, and piano. I originally chose to compose an orchestral piece because I wanted to write something that would challenge me to think in new ways, that would provide a change from the solo and small ensemble works I had been writing for the preceding two years, that would allow me to work with a variety of colors to which I had not had access up to that point, and that would give my composition portfolio a wider scope. It also seemed fitting to finish my studies by writing a piece that would challenge me to think of new ways to compose for ensembles. This piece is not so much a stretch into the unknown as it is a distillation of music that I've been writing for the past five years. It addresses almost all of the major issues I've been thinking about as a composer during that time, and it tends to take a middle ground, avoiding the extremes of experimentation. This is not to say that it is, in any way, a bland regurgitation of ideas: it is more a reflection of things past and present with a dimly-lit view of the compositional future. Let us look on this document as a window

into my own head, showing you everything I was thinking when I composed *The Art of Light*.

## II. Simplicity

For as long as I have been composing, simplicity has been very important to me. Perhaps this comes from the fact that I am a recorder player and grew up playing early music, with its tendency towards thin textures and clearly-defined contrapuntal lines. I was never properly introduced to the rich, thick harmonies of Romantic music until late in my musical education. Sure, we all listened to some of it on the radio occasionally, but it was always background music to the stuff of everyday life. It was not music which I lived with and studied for months and months, as is the case with many composers who are trained pianists or players of orchestral instruments. I love simple lines, I love simple textures, I love the juxtaposition of colors and clearly discernible ideas, I love to hear how motives unfold over time. As a composer, I like to give people time to think. I like to give myself time to think. There is something very exciting about fast, dense music that makes you want to sit on the edge of your seat but, recently, I have not found it alluring.

I remember when I lived in Boston, there was a pianist named Greg Pagel who was studying contemporary improvisation at the New England Conservatory of Music. A number of students asked Greg to accompany them because he was such a good-natured fellow and a fine musician. Since many of my friends were improvisers, and Greg and I often ate meals together at the Conservatory's Hall of Residence, I started attending his concerts. I was always surprised at how he could use so little to say so much. Most of

the other improvisational pianists at the Conservatory used thick chords to fill out the harmonies and placed them either on downbeats or in traditional jazz syncopations. When Greg was having a really good time playing with his friends, he, in comparison, hardly played at all. It was not uncommon for him to play only one note, and then sit back and listen to what everyone else was doing, adding another note or two when he felt it necessary. Up to that point, I had always been convinced of the importance of every note in a piece, but it was then I realized how much a single note could mean, and that it didn't necessarily need to be backed up by numerous other notes for it to be of utmost significance, provided that the timing was right. The power was in the singular.

This belief in simplicity extended into the argument which I, as an undergraduate student, thought so important: that of tonality versus atonality. For a long time, I was convinced that strictly tonal, melodious music was the wave of the future. The avant-garde and the serialists were unable to hold my interest. At university, atonality was forced down our throats and I was unwilling to swallow. It was only when I read what some may consider the most unlikely of books, the transcription of Leonard Bernstein's Norton Lectures at Harvard University entitled The Unanswered Question.<sup>1</sup> that I came to see the need for both musical worlds to co-exist. While some musicians see one style or the other as inherently superior, I believe that each has its advantages and disadvantages in certain situations. Each can be equally effective, depending on the circumstances and ways in which it is used. The student of music can gain much from studying both styles;

then, it is up to the individual to decide which path to take, or whether to sit in between. Aaron Copland was a strong influence in my first years of compositional study, since he was able to move efficiently back and forth between the two idioms. While I was not always convinced by his “serious” works, and tended to favor his more “popular” pieces written in the 1930s and 1940s, I liked the idea of having a choice. It meant a great deal to me to see someone who was revered by Americans and seemed to do exactly as he pleased, to be able to express himself however he wanted without fear of retribution.

I hesitate to place myself in a musical camp, because, to some extent, I feel that my music is neither fish nor fowl. I constantly struggle, in my own composing, with what I think is academically acceptable and what I would like to hear. As a student of composition, I am constantly forced to rationalize what I do. Yet, at heart, I’m not entirely sure I understand the obsession with the rational in music: the desire that things be easily defined, categorized, logical; the idea that if something does not appease the god of intellectualism then it must not be worthy of attention, it must not be worthy of performance, it must not be worthy of teaching to others, it must not be worth preserving. I am most interested in the musical journey, the doing and the feeling and not the theorizing. What I have gained from my educational experience is not necessarily what I was supposed to have taken away. I feel a little like the author Joan Didion, who writes about one of her academic experiences in this way:

I had trouble graduating from Berkeley...simply because I had neglected to take a course in Milton. For reasons which now sound baroque I needed a degree by the end of that summer, and the English department finally agreed, if I would come down from Sacramento every Friday and talk about the cosmology of *Paradise Lost*, to certify me proficient in Milton. I did this. Some Fridays I took the Greyhound bus, other Fridays I caught the South Pacific's City of San Francisco on the last leg of its transcontinental trip. I can no longer tell you whether Milton put the sun or the earth at the center of his universe in *Paradise Lost*, the central question of at least one century and a topic about which I wrote 10,000 words that summer, but I can still recall the exact rancidity of the butter in the City of San Francisco's dining car, and the way the tinted windows on the Greyhound bus cast the oil refineries around Carquinez Straits into a grayed and obscurely sinister light.<sup>2</sup>

Perhaps this is what education is all about; it is not necessarily the things one is supposed to learn, but the things one picks up along the way that are most important. I work with the academic establishment in that my music has definite late-20th century modes of dealing with rhythmic pulse and register, but the harmonies, the treatment of motivic kernels, and the density of the material may very well be of another era. One of the greatest losses of the avant-garde is that it treats feeling and doing as simplistic when compared to theorizing. The movement forgets that nuances can be quite complex.



fig. 2 *The Art of Light*, violin I, violin II (div.), bs. 37-42

The overlapping violin lines at b. 64-79 are a transformation of the original piano theme using the same interval set.

fig. 3 *The Art of Light*, violin I, violin II, bs. 64-67

In both cases, the use of the motive is relatively literal. Despite the fact that it takes some liberties with the rhythmic character of the material, it remains in the same rocking 6/8 meter. The brass-backed melodic line of b. 80-81 and b. 84, which is almost fanfare-like in character, is yet another example of the motive at work.



fig. 4 *The Art of Light*, trumpet, bs. 80-81

The second extended piano solo, at b. 105-118, spreads the motive out over the register.

In this way, almost entire phrases can be constructed using a two or three note pitch collection, taking advantage of the sense of variety register can provide.

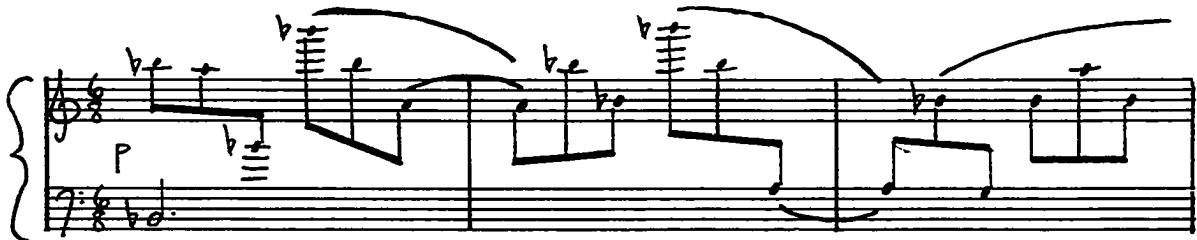


fig. 5 *The Art of Light*, piano, bs. 113-115

The viola line at b. 127-137 further develops the neighbor-note idea.



fig. 6 *The Art of Light*, viola, bs. 127-129

The trumpet, at b. 142-145, takes the neighbor note motive and whips it up into a frenzy using the [0,1,3] interval set. Each bar of the solo can actually be seen as a variation of b.

142.



fig. 7 *The Art of Light*, trumpet, b. 142

The material at b. 146-149 departs more widely from the original theme, yet it still depends on oscillating neighbor notes.



fig. 8 *The Art of Light*, clarinet, bs. 146-147

The piano once again extends the boundaries of the [0,1,3] interval set in the third solo, spreading the notes further over the register of the instrument. It is important to note here that, over the course of the piece, each of the first three piano solos approaches the original motivic kernel in increasingly complex and technically challenging ways.



fig. 9 *The Art of Light*, piano, b. 150

It is not until b.154-161, which I think of as the climax of the piece, that the [0,1,3] and [0,2,4] interval sets collide, the piano playing the [0,1,3] set and the first violins playing the [0,2,4] set (fig.10).

fig. 10 *The Art of Light*, piano, violin I, bs. 154-155

The material played by the violins at bs. 154-161 is almost an exact duplicate of that played by the first violins at bs. 64-74, the only real differences being the shift in tonal center and the use of the [0,2,4] set instead of the [0,1,3] set.

The outer voices of the piano chords at bs. 184-187 relate directly to the opening theme, yet do not have the same metric flexibility.

fig. 11 *The Art of Light*, piano, bs. 184-185

The rest of the solo is essentially a recapitulation of material from bs. 146-149 and the trumpet line of b. 142. The vibraphones and crotales return at the end of the piece, picking up the [0,2,4] interval set of E - F-sharp - G-sharp from the principal horn, suddenly bringing us back to the place where we began, or perhaps returning us to the world that has been continuing on in our absence. While a list like this may be

considered tedious, I think it is important to illustrate that almost all of the principal material in *The Art of Light* comes from the same source.

The idea of creating an entire piece out of one or two small motives or interval sets has interested me ever since I began to study composition. In essence, I think it relates to my fascination with seeing how much can be done with very little; it is almost a compositional game I play with myself. However, I cannot say this was an idea that was spontaneously generated in my own mind; it relates to my first studies of music analysis undertaken at King's College, University of London, under the direction of Christopher Wintle. Professor Wintle based the entire first year of instruction in analysis on Arnold Schoenberg's book, Fundamentals of Musical Composition.<sup>3</sup> Schoenberg devoted an entire chapter to musical motives and their handling, and the principle of developing variation was treated in great depth by Wintle. "Repetition creates coherence, variation creates interest" were the watch-words of the class for some weeks. I loved learning about developmental variation and found it easy to spend hours tracing Beethovenian motives. I could find all the nuances in all the forms of the motive. In contrast, I had difficulty with tonal harmony and spent weeks trying to understand the various forms of augmented sixth chords, which I promptly forgot the day after the final exam. Thus, most of my analyses during my years at King's (and after, for that matter) centered on motivic development. While the musical examples in Fundamentals of Music Composition are all from Baroque, Classical, and Romantic literature, it is clear to

anyone who studies the music of either Schoenberg or his most notable students that he taught this principle carefully and expected it to be used in a twentieth-century context. The following year at King's, our analysis of Webern's String Quartet, Op. 5, the whole of which can be seen as a massive exercise in developmental variation, only emphasized this idea.

Directly after I graduated from King's College, I began my graduate studies at the New England Conservatory where, in my first year, I took composition lessons with Arthur Berger. Arthur Berger was a strict teacher, usually confining his students to a regimen of composing with pitch and interval sets for at least a year before he allowed them to move on to free composition. I remember an early assignment when Professor Berger asked me to write a piano miniature using only the [0,1,3] interval set and I returned the next week with an entire piece that used only three pitches. He seemed happy, but rather shocked: he had not expected I would take such a peculiar approach. He then let me know that I could use more notes if I wanted, pivoting the interval sets through inversion and retrograde to get more pitches, and sent me off to write more little pieces. In this way, the strict use of limited motives, transformed through developing variation, became an important feature in my music. Motivic development can even help to define formal aspects of the work, as is the case in *The Art of Light*. The large-scale form of the work — an orchestral body framed by two sections for percussion ensemble which function as an introduction and conclusion — is emphasized by the use of the

interval sets. While the body of the work is dominated by  $[0,1,3]$ , the percussion ensemble uses the  $[0,2,4]$  set.

#### IV. Large-Scale Pitch Centers

Motivic content was not the only consideration in the composition of *The Art of Light*; the large-scale structure of the piece is defined by a simple harmonic plan. While the music clearly does not follow classical harmonic procedures, it does revolve around certain pitch centers which methodically progress half-way around the circle of fifths. These changes in pitch center coincide with particular stages in the motivic development to create important structural points over the course of the piece.

The beginning of *The Art of Light* is clearly centered around C, both in the opening pitched percussion trio and the first piano solo. The IV of C is hinted at strongly with the first entrance of the strings at b. 37, but the pitch center quickly returns to its original home base at b. 47. Beginning at b. 64, the material of which is clearly a varied restatement of the original motive, the pitch center shifts to F. Gradually, a move to B-flat is made, finally accomplished in the second piano solo at b. 113, where a varied restatement of the original theme is presented through the extended use of the [0,1,3] set. These pitch centers are all well-established, but this is not true of the entire piece. Occasionally, this harmonic scheme served merely as a guiding principle for composition, a way of thinking about the music in order to help lend the piece a sense of direction in my mind. This is the case with the pitch center of E-flat, which is, quite frankly, all but non-existent when one looks at the score. I believe that I originally intended the melody line of the viola at b. 119 to signify the tonal area of E-flat. Note the

neighbor motion between E-flat and D which is similar to the way in which I established other pitch centers in the piece, using the leading tone to emphasize a single note. Certainly, I would not have missed E-flat entirely before establishing the pitch center of A-flat at b. 127, where a new formal section of the piece begins with a varied restatement of the opening theme in the viola. I seem to remember that dwelling on E-flat at that point, reworking the neighbor note motive as in the opening, led to a sense of stagnation in the music. It was better to make a quicker shift there, giving the music a sense of harmonic movement. The following section compensates for this by being not so much “in A-flat” as “on A-flat”, treating A-flat as a note of primary importance, yet never truly confirming its supremacy harmonically. While it is important to set certain guidelines for oneself when creating a piece of music, I believe it is equally important not to follow those guidelines when it becomes clear that, in so doing, one may sacrifice the quality of the music.

After this area of harmonic uncertainty, absolute stability does not return until b. 142, where, without a doubt, D-flat is the pitch center. The move to D-flat is strengthened by the extensive use of the IV and V of D-flat (G-flat and A-flat) in bs. 127-141 and coincides with an important shift in the motivic material, the [0,1,3] set now being played quickly by the trumpet. The next and final stop along the circle of fifths, F-sharp/G-flat, is first introduced in the third piano solo at b. 150 with the F-G-flat-A-flat pitch set, although the tonal center does not really settle until the strings begin at b. 154

with an altered recapitulation of the material from b. 64-74. It has been pointed out<sup>4</sup> that, in the piano solo, further steps along the circle of fifths are traversed in the bass line (the B at b. 151, the E at b. 152, the A at b. 153, and the D at b. 154). This is not a gesture I made consciously, but it does raise an interesting point. Instead of seeing the following F-sharp as the logical successor in the circle of fifths, in this light it can be seen as a vii of G, the note that should appear next in our bass progression in the piano solo (but never does) and that happens to be the V of C. In this way, we may be closer to the original “home” pitch center than I had realized. Yet, the harmonic connection (vii of G) is weak enough that I do not think it disrupts the concept of F-sharp as the next step in the circle of fifths after the D-flat.

When we arrive at B in b. 188, it might seem that we will be continuing further around the circle of fifths, using F-sharp as no more than a stopping point along our journey, but, structurally speaking, what starts out as a strong affirmation of the pitch center of B is really no more than a IV of F-sharp, which is brought back by the pitched percussion quartet at b. 200. It is important to note that the piece ends half-way around the circle of fifths from where it began, F-sharp being a tritone away from C. Enough time elapses between the first note and the last that it is unrealistic to expect the listener to be able to orient herself or himself according to the relationship between the two opposing tonal centers, yet I have a tendency to think that this finish in F-sharp helps to give the piece an aspect of the incomplete. It is as if we have been on a journey and

when we return home at the end we realize our perspective has changed immeasurably and familiar landscapes have become somewhat different.

## V. Orchestration

While it certainly would have been much simpler, for the purpose of performance, to re-orchestrate this piece for large chamber ensemble, I feel strongly that *The Art of Light* is specifically an orchestral work and the musical material would not fare well if treated in a different context. In some ways, this piece is misleading at first glance because the frequently transparent orchestration seems to suggest that it is, in fact, a chamber piece with an over-inflated ego: a good excuse to get a lot of people on a stage and make them sit and wait a long time. However, if we look back through history, we find that some of the best orchestrators of the nineteenth and early twentieth centuries were those who treated the orchestra as if it was a collection of innumerable small groups of instruments. Mahler's *Kindertotenlieder*, in particular, is notable for this kind of orchestration. Under his care, the orchestra ceases to work as a sound mass and begins to be used as a palette of instrumental colors which can be juxtaposed or mixed at will. When one starts to use the orchestra as the ever-changing collection of sounds that it is, the possibilities become limitless. Varying the density of the material allows one to use even more colors, to introduce sounds and ideas more gradually, and to add interest to the material by carefully manipulating the extra dimension of "thick and thin". I have been very careful, at the beginning of the piece, not to give away everything at once: not to use the entire orchestra right up front. I choose to introduce each color slowly, placing it non-intrusively in the listener's ear almost at the subconscious level. At the opening of

the piece, the only color we hear is that of the bowed vibraphones. Gradually, the sound of the crotales is introduced, but only every few notes. As the trio goes on, the crotales notes are spaced more and more closely together, becoming integrated into the soundworld. Once the piano solo begins, different solo instruments are introduced one by one - first the horn and timpani, then the flute (again with the timpani), and then the clarinet. In this way, the first piano solo alludes to the importance of the timpani (the sound that will help to finish our journey at the end of the piece). The crotales, which play with the clarinet and piano at b. 23, make reference to the opening percussion trio, allowing us to realize that the two sections are not entirely unrelated.

The manner in which I introduce instrumental colors is similar to the technique which I used in the opening piano solo of my piece, *Boston, Adieu (Darmstadt Can Wait)*, the only large ensemble piece I wrote before *The Art of Light*. In *Boston, Adieu*, the instruments of the 10-piece ensemble sporadically share a note or two with the piano at different points, introducing the listener to the different colors available in the group. However, since this was a piece for significantly smaller forces than those of *The Art of Light*, once the instruments were introduced I had used all the color resources at hand and was left mostly to play with issues of density. In *The Art of Light*, colors continue to be introduced long after the piano solo ends, helping the piece to build and giving it greater length. The larger forces also help to create the sweeping dynamic growth required by the material at bars 37-46. If the piece had been for chamber orchestra or large ensemble,

these effects, which are integral to the organic growth of the piece, would not have been possible.

When working with larger forces, one can also use orchestration to help shape the form of the piece. The distinctive sound of the pitched percussion trio - the two bowed vibraphones and full set of bowed crotales - becomes a frame for the rest of the sounds in the piece, a reference point from which we depart and to which we eventually return. The reappearance of these instruments in the body of the work, playing single notes at various points, helps to remind the listener of what has come before, keeping the outer sections from becoming completely detached from the body of the work. In the central large-scale section of the piece (b. 2-199), there is a progression from a primarily string-dominated sound to one in which the winds and brass appear in ever-growing prominence. While solo winds, in b. 2-137, either appear in alternation with strings or are used as a way to extend the color of the strings, they are never featured as a prominent group for a significant length of time until just past the mid-point of the work. By bar 138, the wind and brass choirs assert themselves to the point where they take over the texture and work with only minor reinforcement from the lower strings, a pattern which is only broken by the piano solo at bar 150. For the rest of the piece, the strings, winds, and brass tend to work more as separate choirs than as the mixed palette of colors which was used at the beginning of the work. In this way, the soundworld of the body of

the piece can be seen as slowly growing, spreading outwards, and then solidifying before the pitched percussion quartet at the end brings us memories of the opening of the piece.

When I first began work on *The Art of Light*, I was thinking of writing a piano concerto. In my most recent work, the sound of the piano has been of particular interest to me, and it seemed fitting to bring back some of the ideas I'd used in my former small ensemble and chamber pieces for piano such as *Boston, Adieu (Darmstadt Can Wait)*, *Piece for Piano*, and *The River of Stars*, and apply them in the context of a piece for piano and orchestra as I was reaching the culmination of my academic musical education. In addition, I was interested in the formal possibilities of the concerto and the shape it might give a work. I also had in mind the possible opportunities for performance; I had heard, while attending a conference on the business of composing,<sup>5</sup> that shorter pieces for orchestra and concerti were more likely to be performed than longer pieces which did not feature a soloist. When I first began writing the opening piano solo while listening to the rain outside of my apartment on a wet, gray, late-winter morning in Victoria, B.C., I knew this was the beginning of the piece for orchestra and piano. It was only later that I came to see this was not suitable material for a traditional concerto. Try as I might, I could not write convincing virtuosic music that would grow quickly out of this opening. I felt a little like Morton Feldman, who wrote:

Every time I try to manipulate my work for what I think is a terrific idea, the work drops dead.<sup>6</sup>

Only when I began to accept the true nature of the opening piano solo and the percussion trio which was written to precede it could I compose music which grew slowly, not releasing itself into wild displays of technical prowess. At that point, I began to think of the entire piece as an anti-concerto: a work which features extensive piano solos but which, unlike the traditional concerto, does not display the technical virtuosity of the player. This does not mean that the piano part is “easy.” On the contrary, the part demands a high level of musicality, a developed sense of phrasing, and a strong command of tone-color to give a convincing performance, qualities not all technically-adept pianists possess. The part attempts to convey the beauty which can be found in simplicity, drawing the interest of the listener to small nuances instead of grand gestures. It represents an ideal in which something is not necessarily better or worse merely because of the level of technical or theoretical difficulty.

The idea of the anti-concerto also influenced the orchestration of the piece. Traditionally, we find that concerto soloists are “pitted against” the larger ensemble, a formal feature which had interested me when I first began thinking about writing a concerto. The struggle between the two is, supposedly, what helps lend shape to the work. However, because of the lack of showy virtuosic playing which would draw attention to the piano, highlighting the difference between soloist and ensemble, and because of the extended solo writing for many of the other instruments which is not separated formally into solo and tutti sections within the work, in *The Art of Light* I do

not perceive any sort of struggle between large and small groups. They work together, extending the color palette.

## VI. Time and Pulse

Orchestration is not the only aspect of the music which influences the form of *The Art of Light*. In fact, the entire shape of the piece is conceived around a concept of time and pulse. Here we enter into dangerous territory, for time has been discussed by many musicians, but it is seldom clearly defined. Everyone has her or his own idea of what musical “time” is and how we should think of it. Some think of “time” merely as a concept which relates to rhythmic accents and meter, some think of time as having to do with tempo, some people only want to talk about time as it relates to actual measured clock time, some people talk about time only as it is perceived by each individual. I find it remarkable that most of the scholars who write on these topics are able to spend so much time and effort heatedly discussing what seems to me to be a somewhat pedantic, impractical issue. Most articles become even more suspect when they launch into long diatribes about how the brain works without offering scientific evidence to back up their claims. While I hesitate to raise issues of time and pulse because I feel as if I am opening an enormous can of worms, I promised that this document would act as a window into my mind as I was writing the piece. Since this question of time was constantly with me as I was writing *The Art of Light*, it must be raised here. I have found that my concept of time and its relation to music diverges greatly from the views of various academics as it is discussed by them in numerous treatises. In some cases, these discrepancies will be

addressed, and in other cases I will choose to avoid them entirely for fear of clouding the issue at hand, which is to explain what I was thinking when I was writing the piece.

Göran Westergren, in his book entitled Time: Experiences, Perspectives and Coping-Strategies, writes:

We experience time in two ways. As a medium and as a perspective. The former has to do with duration and succession, while time-perspective deals with dimensions past-present-future and the great existentialist questions.<sup>7</sup>

English grammatical inconsistencies riddle the text (published in Stockholm in 1990), but these do not detract from Westergren's extremely important point of how we think about time. For most of us, the concept of "time" is twofold. On the one hand, it is an easily-perceptible, almost material, quality that we can count or measure. On the other hand, it is a more theoretical construct in which we can ponder the vagaries of past, present, and future or the even greater problem of the inconsistencies in our own personal perceptions of time and how it passes. During the year that I spent writing this orchestral piece, I was thinking a little bit about both of these aspects of time in terms of the perceived passing of time and also of musical pulse.

First, we all know that one can fill time with different amounts of, for lack of a better term, "stuff". Sometimes we can sit on the veranda with a cup of tea and watch the sunset, but at other times we have to cook dinner, answer the phone, keep the dog's face out of the garbage can, and try to hear the radio announcer when she lets you know the

precise location and direction of that tornado which is now about ten miles from your mother's house in Kansas. Sometimes we can listen to an orchestral work by Stockhausen, sometimes we can listen to a piano piece by Morton Feldman. Sometimes we go to the art gallery and see six works by Robert Rauschenberg, sometimes we go and see one painting by Mark Rothko. In the case of this piece, I wanted to use, as a guiding formal principle, the idea of filling time with ever-increasing amounts of stuff. In general, I attempted to increase the activity of the music gradually over a long period of time. I wanted to see if it was possible to make this increase of movement as seamless and imperceptible as possible. One of the ways in which I did this was to introduce slightly quicker rhythms in increments. For instance, in bar 127, I introduced the first sixteenth note in the entire piece, but I did not make a change from eighth notes to sixteenth notes all at once; I mixed the sixteenth notes in with the eighth notes to create a gentle rippling motion in the viola line. The number of sixteenth notes in each bar of that line gradually increases until bar 136, which consists entirely of sixteenth notes.

Another way in which I attempted to make this increase in activity as smooth as possible was to make most tempo changes in the piece related. This certainly holds true until the trumpet solo beginning in b. 142. At first, I made an honest attempt for the quarter note to equal MM112 here. This would have meant that the quarter note of b. 142 was equal to the dotted quarter note of b. 141. Unfortunately, the tempo was too fast to be played without causing the performer anxiety and making the phrase sound

extraordinarily rushed. The numerous D-flats, echoing quietly through the orchestra underneath the trumpet, also needed to have a little more time to be heard. I brought the tempo down to MM=105, which took some of the edge off the fast pace while pushing the material along quickly enough that it did not drag. I encountered more trouble at b. 150, where the material played by the piano could not maintain its strong and decisive character at MM=105. Since the material in bs. 152-153 seemed to thrive at an even slower tempo than the material of b. 150, I chose to gradually decelerate the tempo. A unified pulse is highly unusual for my music, which generally makes unrelated tempo shifts several times during the course of any given piece.

It is important to mention in closing that while the beginning and end of *The Art of Light* provide a frame of reference for the rest of the work in terms of orchestration and motivic material, they also serve as a backdrop for the changing levels of activity in the body of the work. This is an issue which will be discussed in the following chapters.

## VII. Dealing with Time: a personal history

The beginning and end of *The Art of Light*, written for pitched percussion ensemble, represent an idea with which I have been toying for a number of years. It all began in the summer of 1994, when I was working as a Resident Assistant at the Boston University Tanglewood Institute, located directly up the road from the famous Tanglewood Music Center in Lenox, Massachusetts. Whenever I wasn't working, I walked down the hill to the festival and observed the composition seminars. While I was unable to participate as a full member and did not have the fellows' option of spending the long summer days composing music in a studio, I was always welcome to sit and listen to what the fellows and their guests speakers had to say, and I set my flexible work schedule so I would rarely have to miss a meeting. In the latter half of the summer, Louis Andriessen was the composer in residence. Unlike other composers who might have been more formal regarding the teacher-student relationship set up by Tanglewood, Andriessen proclaimed that he was there to help all students of composition, and he arranged to give at least one lesson to every composer who wanted to meet with him, whether or not he or she was a full card-carrying member of the Tanglewood elite. Andriessen very kindly met with me, went over the works I had brought him, and, at the end of the lesson, told me that I should never be afraid to take more time in my music to get from one point to the next. Take more time. For some reason, although that was only one of many things he said over the course of the hour, it had the strongest impact on me.

Take more time. Suddenly, without thinking about it in a conscious way, I began to play with time, play with pulse, and play with ever-increasing amounts of stasis. The first piece in which I did this was my second cello and piano piece, *Ars Infans*, begun in September 1994 and completed in February 1995. Over the course of the first five minutes, the piece builds and builds in density, finally creating crashing chord clusters, but the momentum is suddenly held in check by a peculiar passage which, in retrospect, really does not have much to do with the rest of the piece. It is a small section in which the pulse becomes destabilized, the music suddenly moves much more slowly, and it seems as if everything is held in suspended animation. After that, the piece is allowed to wind down to a close.

My next piece, *Boston, Adieu (Darmstadt Can Wait)*, contained an extensive piano solo at the beginning of the work. I realized after notating the part that certain phrases sat outside the established pulse and required a great deal of rubato. Yet I wanted the rubato to be quite precise: those two notes should be faster, these three notes should gradually slow down. Since there was no means by which I could notate this exactly using traditional practice, I used a graphic device to help the pianist understand how the part should be performed.

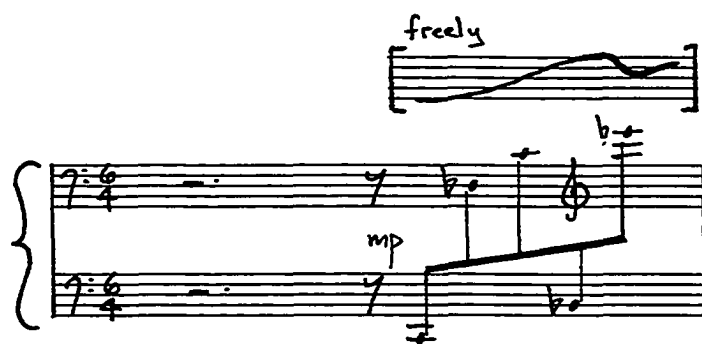


fig. 12 *Boston, Adieu, piano, b. 26*

The curved line, placed directly over the notes, showed the performer how fast the acceleration or deceleration should be. The high points of the curve were to be played the most quickly, the low points of the curve were to be played the most slowly. At the end of the piece, I left bar lines behind and chose to notate the score graphically, asking the conductor to cue players, but not necessarily asking for a strict pulse to be given. In performance, each player had a copy of the last page of the score at the end of her or his part (fig. 13).

In *Prelude* for solo violin, written in the spring of 1996, I left the traditional world of meter and rhythm almost entirely behind. The piece required the use of such extreme rubato with such irregular accents that using meter no longer seemed feasible. Not wanting to leave the choice of rubato up to the player (since every change in the length of each note seemed to affect the phrasing and coherence of the music) I chose to notate the length of each pitch precisely. At this point, it is important to stop and discuss the compositional process behind the *Prelude* to show the development of my ideas about rhythmic notation and to examine the steps involved in writing what was, for me, a

Very freely, (♩ = 80) molto rit.

The score consists of ten staves. The first staff is a treble clef with a tempo marking 'Very freely, (♩ = 80)' and a dynamic marking 'P'. The second staff has an asterisk at the beginning and contains notes with dynamics 'P' and 'P'. The third staff has notes with dynamics 'P' and 'P'. The fourth staff has notes with dynamics 'P' and 'P'. The fifth staff has notes with dynamics 'P' and 'P'. The sixth staff has notes with dynamics 'P', 'PP', and 'P'. The seventh staff has notes with dynamics 'P' and 'P'. The eighth staff has notes with dynamics 'P' and 'P', and includes the instruction 'sulla' and '(double-stop)'. The ninth staff has notes with dynamics 'P' and 'P', and includes the instruction '(double-stop)'. The tenth staff has notes with dynamics 'P' and 'P', and includes the instruction '(double-stop)'. The score ends with an asterisk on the seventh staff.

fig. 13 Boston Adieu, b. 204

pivotal work. When I first began composing the *Prelude*, the opening theme came to me in fairly quick order. Since it seemed so improvisatory in nature and I did not want to waste too much time figuring out the durations of each note, I chose to notate the pitches on the page using only approximate rhythmic values. Since the rhythms seemed to remain in my mind for days and I could play the piece at the piano almost exactly the same way each time without using precise notation, I did not complete the rhythmic notation until I had composed the entire piece. When I finished the *Prelude*, I recorded it in one-phrase sections at home on my electronic piano which has a simple playback option. With this, I was able to analyse each duration and carefully notate the rhythms of each phrase, realizing that, without consciously being aware of this fact during the process of composition, there was a common pulse running through the entire piece. When I was figuring out the precise durations of each note, it was quite natural for me to work in an invented short-hand, writing the number of beats (or pulses) above each pitch as I worked. In other words, I arbitrarily decided each pulse equaled an eighth note. If I wanted to make the note C a dotted quarter note, I would write a "3" above the pitch, since a dotted quarter note contains three eighth notes. This proved to be the quickest way to figure out the exact rhythms of each phrase. At the end of each work session, I copied out the notes in traditional rhythmic notation so the performer would understand it. I followed this same process for both *Piece for Piano* and *One Flute*, solo works completed in the fall of 1996. In the only other solo work I have written in this style,

*Syrens* for solo guitar, I neglected to use precise rhythmic notation mostly because of time constraints. It is worth recording the exact circumstances here in order to understand how I came to relinquish precise control over all musical rhythm, which is something I still do on occasion (such as in the final percussion quartet of *The Art of Light*). In the fall of 1997, my friend, the guitarist Rita Szekely, asked me to write a solo piece for her graduate recital in December of that year. Since I was taking the comprehensive examinations for my doctorate degree at that time I was unsure that I would be able to finish the piece, so I gave her only a tentative promise that I would compose something for her. As my exams dragged on and I found myself with a few hours here or there, I worked sporadically on the piece for a couple of months, becoming more and more interested in the idea of writing for guitar and in the piece itself. In essence, the piece was a rehashing of the devices used in the *Prelude* for solo violin, using a similar theme and variations form and incorporating the sound of natural harmonics on the guitar. Rita had asked for the piece to be completed by a certain deadline, but I realized as the weeks went past that this would leave me very little time to finish the work. I was supposed to travel to California for a conference and I had no idea how I was going to finish the piece, leave Victoria, and keep studying for my exams all at the same time. As it turned out, I was able to finish writing down the all the notes, but since I had left the rhythmic notation to the last (as was my habit), I had no time to write down the rhythms. The night before I left for California, I gave Rita the piece which was

notated in approximate rhythmic values (still the first stage of my compositional process), played it through for her once at the piano, and prayed that everything would be all right. As it turned out, the piece seemed to thrive with a much looser interpretation of the durations than I had originally envisioned -- one of the few pieces about which I can say that. The sketch-like rhythmic notation also allowed Rita much greater freedom in her interpretation of the work. Right now, the piece exists as a score that is supplemented by a tape of Rita's performance in order to give other performers a sense of where the emphasis should be placed on certain notes. Rita had the advantage of hearing my piece played by me at the piano; I can only offer an equivalent to any other performer.

Begun in the fall of 1996 and completed in May or June of 1997, *The River of Stars* was a small ensemble extension of *Prelude*, *Piece for Piano*, and *One Flute*. It was one of the most demanding pieces I have ever written (both for me and for the players) and it crystallized all that I had been thinking about pulse up to that point.. At first, I had intended the compositional process to be exactly the same as that practiced in the solo works: I would write down the pitches in approximate rhythmic values, then return at the end and carefully write down each of the durations in traditional notation. It was only by chance that, as I was composing the end of the piece, I happened to be coaching a performance of my *Prelude* being given by Gabriel Solomon, a violin student at the University of Victoria. He was very careful in his preparation of the piece, and spent a great deal of time analyzing the work and figuring out how to play the exact durations as

written. One day, I went to meet with Gabriel and found that he had marked the score full of little numbers. I asked him what they were, being very curious and not taking the time to figure it out for myself, and he replied that he had written the number of eighth notes in each duration above each pitch to make it easier to count out the rhythms of the music. It was the same process I used as I figured out the durations of each note, except Gabriel did this in reverse, taking the rhythms and translating them into numbers. I reasoned that there must be some natural logic to it if the two of us had independently arrived at the same technique. In issues where notation is concerned, I am always most interested in making things as clear as possible for the performer, and this seemed like an interesting alternative to traditional rhythmic notation. It saved the performer from having to translate the rhythmic symbols of musical notation (such as half notes or eighth notes) into beats which he or she counted as the music was played.

Nonetheless, I finished composing *The River of Stars* shortly after my meeting with Gabriel, and began translating the durations in my head into precise values on the page. The piece had no meter. It was, in general, calm, quiet, and slow-moving, with very little activity in the parts. As I copied out the durations in traditional rhythmic notation onto the page, I realized how inadequate the traditional system was for the piece. With all the eighth notes attached to half notes attached to quarter notes, the music looked busy, it looked active, and it looked very messy. The musical line shifted frequently from instrument to instrument, and it was difficult for the eye to follow the line as it moved.

This had never been a problem in the previous pieces which were all instrumental solos. I realized that I had to do something differently, and I had to do it quickly since my piece was scheduled to be juried by the composition faculty of the University of Victoria in a few days as part of the year-end examination process. Feeling a little reckless and devil-may-care with the deadline approaching, I decided to take a chance and develop my own notational system for the piece, using the same technique that Gabriel Solomon and I had found useful with the *Prelude*. At first, I copied out the first page entirely in black and white. When I did this, it made the page look cleaner, but it did not solve the problem that the eye was not naturally led from one note to the next as the line moved from part to part. I ran down to the art supply store, purchased some pens, returned home, and started copying the entire piece in color. Note heads and dynamic markings were made in black, the note heads had no stems (since these signify duration), numbers above the note heads were in red, dotted green lines showed simultaneities between the notes, and red numbers in parentheses above a rest indicated the duration of the pause. It would have been a nightmare for anyone who was colorblind, but it worked well for me and it solved most of the problems inherent in the traditional notational format. The visual aspects of the piece finally reflected the music itself: it was calm, clean, and easy to follow. In sections where the piece had a clear pulse or meter, it was easy to shift to traditional notation. In sections where it was unnecessary to have notes played for exact periods of time and more freedom could be given to the players to allow them to create a soundworld where

pulse did not exist, the words “no pulse, very slowly, freely, ethereal” were written above the music and the red numbers disappeared from above the black note heads which were placed in varying distances from each other as a way of indicating an approximate duration for the pitches. During the rehearsals for the first performance of the work in March 1998, the players quickly became accustomed to the system.

In some ways, *The Art of Light* is a look back at *The River of Stars*, but it is one from a new perspective – one in which these more recent ways of dealing with time and pulse are mixed together with some of my old ways of looking at music, where meter is always present and where the pulse is strongly felt in predictable patterns. The beginning of the orchestral piece is certainly reminiscent of the soundworld of *The River of Stars*, one in which there is very little activity, the music proceeding quietly and calmly. In the opening section, I hoped to achieve a sense of stasis, a sort of “nonchange as a reference for change,”<sup>8</sup> a point at which everything is suddenly suspended. The concertmaster comes out onstage, the orchestra tunes up, the members of the audience gossip, the conductor enters and stands on the podium, everyone claps, and then everything stops moving. I often think of it as being gravity-less music, almost as if you sat down to breakfast and suddenly you, your spoon, and your oatmeal slowly floated away. Gradually, movement is introduced, activity increases, and gravity slowly begins to take over once again as activity is reintroduced into the concert hall. At the end of the piece, we have just been through a whirlwind of activity, so it would be unfair to ask the listener

to immediately slow down to the same snail's pace that was kept at the very beginning of the piece. Things must have slightly more activity or one's attention will be lost. In the final percussion quartet, I have chosen not to notate the durations precisely since slightly more activity is taking place and it would be difficult for four performers, operating at opposite ends of the stage, to clearly establish a pulse between themselves that would be quick enough to take in all the possible nuances of rubato that is required by the material. I also do not want this passage to be conducted, which would destroy the timeless atmosphere of the music. In this case, as in my piece, *Syrens*, it is better to trust the performers' good judgement, giving them greater freedom and a chance to play with the atmosphere of the orchestra and of the audience. These passages at the beginning and end of *The Art of Light* are not intended to be "boring" or to stretch the bounds of the listener's patience. They are intended to be a sort of calming gesture which forces one to slow down to meet it. There is so little going on that one becomes aware of the most minute details: the nature of the attacks and decays, the color of the instruments, and the fact that the sounds are coming from different places on the stage.

### VIII. The Perception of Stillness

Over the past two years, as I see audiences' reactions to my recent music, I am always interested in the diversity of responses to my approach to time and pulse. Actually, I am also interested in the diversity of my own responses to the music. If I have too many things on my mind, or I feel that I don't have enough time to compose and am in a rush in any way, I find it very difficult to work on these pieces. I feel that every note is far too long, I feel that the piece moves a little too slowly, I feel that all of this is just a little bit boring. However, when I am calm, I have more than enough time ahead of me, and I'm not worried about what anyone else is doing or thinking, I love to play through this music and work with it, touching it up here and there, adding something, adjusting rhythms, moving on to the next section of the piece. I find that this is frequently true of the people in the audience. Some people seem to feel that this is the most boring music they have ever heard in their entire lives; they wiggle, they squiggle, they mumble, they cough. On the other hand, some people seem to enjoy listening to something that hardly moves at all; they sit quietly, taking each note as if it is a world in itself. In essence, each of us can have a very different perception of this music. Sometimes, the same person can have different perceptions of this music depending on the time of day or the circumstances which surround her or him. This is not just a musical question, it is an issue which crosses many artistic boundaries. I remember seeing the film, *Contact*, based on the novel by Carl Sagan, when it first hit the theatres in the summer of 1997. At the

very beginning of the movie, the camera gives us a view of the Earth, directly over the eastern United States, and then pans back, seeming to fly backwards, passing Jupiter and Saturn and flying out of the solar system into what lies beyond. The most interesting feature of this visual journey is that it is accompanied, at the beginning, by a loud collage of easily identifiable sounds from popular music of 1990s North America. We, the audience, from our vantage point high above the Earth, are supposedly hearing the sound of the radio waves as they travel away from the planet. Then, as the camera flies away from Earth, we hear older and older clips of western popular music from the 1980s, 70s, 60s, and 50s in quick succession, combined with voices of famous people who might have been featured on television or radio in each of these periods. For the average American, it is relatively easy to identify most of these sounds. Because radio waves take a while to travel to distant planets, we hear sounds from ever older eras as we move farther away from Earth. Then there is a transitional period, in which the sounds grow increasingly quiet and are restricted to the sounds of human voices (keeping in mind that radio waves were first used as a form of communication from person to person). Finally, when we have traveled far away from our galaxy, the sounds drift away into silence, but the camera continues to travel backwards. We realize that the radio waves from Earth have not yet reached the point where we are: the camera has traveled more quickly.

If we study this entire passage from *Contact* carefully, we notice that the sound which accompanies it has a completely symmetrical form. Directly after the film title

appears on the screen, the loud collage of popular music begins, lasting for approximately 75 seconds as the camera flies backwards. Then, there is a 30-second transitional period in terms of sound when the volume has dropped dramatically and all we can hear are the voices of people speaking to each other. Following this is another 75 seconds of absolute silence as the camera continues to fly away. It is highly unlikely that this symmetrical structure was created by accident. In any case, I wish to address the most striking feature of this scene: the 75 seconds in which no sound is heard at all. This is highly unusual for a film, in which speech or background noise is usually used to make people feel comfortable. It is clear the director felt the need to use no sound at all and to fill the theatre with the kind of silence we might find in space. I thought it was one of the most artistic film scenes I had ever seen in a mainstream movie. I was absolutely entranced; I wanted it to go on forever. But, as the sound died out and the camera was flying through the heavens, the audience grew more and more uncomfortable: people laughed, people wiggled in their seats, people whispered to the other people next to them. What was all this silence? Was something wrong with the movie projector? Had the sound system failed? Was this a joke? It's unusual, in our society, for things to move slowly, for things to lack activity. We are so accustomed to the continuously-moving, continuously entertaining life around us that when we encounter a work of art that is the complete opposite, we may feel uncomfortable. This is true of other forms of reductivist art - art which is based in simplicity, which demands of us that we begin to notice the most

minute details, art like that of Mark Rothko, Agnes Martin, Morton Feldman, and Samuel Becket.

I think this uncomfortable feeling may arise, in part, from our perception of time. Many psychologists postulate that we human beings naturally feel that time moves more quickly and easily when we have something to do to occupy ourselves.<sup>9</sup> In general, my experience, and the experience of many people I know, confirms this notion. Anyone who has ever had a bad case of the flu will know that the last day, when you are starting to feel a little bit better, is perhaps the most difficult part. It's the part where time starts to move really slowly because you have some energy, yet there's nothing you can do and there's nothing you feel like doing, and you think if you have to watch another episode of *I Love Lucy* you'll go out of your mind. How might slow music or fast music affect someone's perception of time? How long or short do they feel a given time period is? How comfortable do they feel with this length? A study was recently done in a gym located in the East Midlands Region of England<sup>10</sup> where normal, everyday gym-goers were asked to leave their watches behind at the front desk as they checked in to use the exercise facilities. All the clocks had been removed from the walls of the space, and each person was free to go and use the exercise machines, as was their habit, for as long as they wanted. It was, in every way for all of the participants, a normal day at the gym, for they were not advised of the psychological study in progress. At the gym, it was the normal practice to play music as a sonic background for people who were exercising.

This experiment, which lasted for two days, was designed to see if different speeds of music could affect people's perception of time. On one day, the psychologists played music with a fast tempo, and on the following day, the psychologists played music with a slow tempo. As the people left the gym, they were asked to estimate the amount of time they had spent in the gym, and then were given back their watches. While the researchers found that people who listened to fast music did not necessarily feel that time was moving more quickly than it actually was, they did find that "slow music led to a greater inaccuracy in estimations than did fast music."<sup>11</sup> In other words, listening to slow music seemed to alter people's perceptions of time more drastically. When writing the opening of *The Art of Light*, it was my intention to almost suspend time. Perhaps, with slow music, time can never stop, but it can distort the way in which we perceive the speed of time as it passes around us. Our reaction to it depends on our state of mind and how important time is to us at any given moment. Of course, I have nothing but personal experience to confirm this claim.

The particular placement of the percussion instruments on the stage is of great importance to me in this piece. Even when the music was first conceived, I envisioned one vibraphone at the back of the stage, one vibraphone on the right hand side of the stage, and a set of crotales on the left hand side of the stage. The pitches and the timing of the notes are only two aspects of the music; I was also concerned with the patterns of movement of the sound. I was very careful to consider the location of the sound source at

all times, careful never to set up a pattern of movement which repeated itself for too long, careful to mix the color of the vibraphones with the crotales in such a way as to create interest for the listener, and careful to time the length of the notes, the lengths of the notes' decay, and the length of the silences in between. It was only later that I read about how perceptions of time can be influenced by space:

Abbe's experiment consisted of two lights which blinked with a consistent time interval between the flashes, but with a variable space between the lights. It was found that the time interval seemed longer when the space was greater. Abbe also demonstrated that if the time interval was varied and the space kept constant, then the space seemed greater when the time was longer....When two time intervals are the same, one will seem longer when the spatial distance between its limiting stimuli is greater.<sup>12</sup>

I will be interested to see whether the spacing of the instruments on the stage adds to the feeling of timelessness which I hope the music conveys. Will the durations seem longer because they come from sources which are located some distance apart?

### **IX. Dealing with Time: a personal perspective**

Now that we have explored the issue of time and pulse in my music, that brings us to the question: where does this sense of time originate? How have I come to feel comfortable exploring new forms of musical notation? For a number of years, I have thought of musical notation merely as a roadmap to making music, not as a strict set of instructions from which no one should deviate. This is, perhaps, unusual. Until the current century, instrumentalists and singers were encouraged to take certain liberties with the score. Depending on the time period, this might have been anything from an ornamentation of the melodic line, a reinterpretation of the exact tempo, or the use of rubato. Early in the twentieth century, there was a shift from a more informal view of the score to an extremely rigid one. Perhaps the most influential proponent of exact musical notation was Igor Stravinsky, who proclaimed that instrumentalists should perform his music precisely as it was written, with no room for personal interpretation:

To interpret a piece is to realize its portrait, and what I demand is the realization of the piece itself and not of its portrait.<sup>13</sup>

When working with instrumentalists trained in the performance of modern music, I have found there tends to be a desire to adhere rigidly to the score's notation; rarely is an instrumentalist willing to take chances and interpret the music, even when he or she has the opportunity to discuss this interpretation with the composer to see whether the artist finds it acceptable. I have always been rather astonished by this attitude. As much as I

am a composer and have lived in the world of twentieth-century music for a number of years, I still look at music with the eyes of a recorder player. The use of the recorder reached its height in the Baroque period, when improvisation was closely interlaced with the performance of art music. I grew up playing this music, and the more training I received as an instrumentalist, the more comfortable I felt taking liberties with the notated music. In this way, the recorder was the perfect instrument for me, since it allowed me to recompose the music as I played. Part of me always expects other musicians to deal with music in the same manner. During my undergraduate work, I studied recorder for two years with Peter Holtslag, a Dutch performer who taught at the Royal Academy of Music in London. He always emphasized to me the importance of improvisation and personal interpretation in the performance of music. The score was only a roadmap which could be followed exactly or freely, depending on the occasion. One should take extra time on certain notes to emphasize dissonances or unusual harmonies, one should adjust the articulation of triplets to make them sound cleaner and clearer, one should lengthen rests occasionally to keep the audience on the edge of their seats, one should use acceleration or deceleration to influence the mood of the music, to make it feel increasingly relaxed or frantic. Recorder players have to toy with time, tone color, and articulation, since the instrument is limited in other ways, leaving little room for dynamic contrast. The best example of Holtslag's aesthetic can be found in his recording of Telemann's Fantasias.<sup>14</sup> Although originally written for flute, they are

commonly transcribed for recorder and known to all players who perform at an advanced level. Fantasias in the Baroque period were, primarily, works which were conceived as written-down improvisations, and Holtslag puts this idea into practice in his recording. Rarely does he follow the strict rhythmic notation set down by the score; he constantly plays with rhythms, tempi, and articulations. What results is a beautiful, lively interpretation of pieces which might otherwise sound a bit like finger exercises. With musical freedom, works can come to life. In trusting the performer, one is taking chances with art. It is a dangerous game, but one which can be extremely rewarding under the right circumstances. With a limited amount of freedom given to the performer, you give him or her the power to interact with the audience, to express the mood of the moment, to create an appropriate atmosphere, to give a convincing performance.

## **X. Time, Pulse, and Form in *The Art of Light***

We have discussed some different aspects of time, how I came to view stillness and how I developed new ideas for musical notation, but we have yet to discuss this within the context of *The Art of Light* in its entirety. For, as I have mentioned, time, and the amount of material with which one might fill time, is an important factor which has been used to shape the form of the piece. The opening of the piece exists in a soundworld that is almost entirely static, slowly gaining momentum as time goes on. This is combined with a pulse which is very slow (MM=55) and has no predictable pattern of accents (such as we might find in a bar of 4/4, for instance). This section lasts for approximately three minutes. It is immediately followed by an extended piano solo which occupies bs. 2-36. In this section, there is a more easily perceived pulse, and a pattern of accents can be readily identified by the listener (which indicates that the music is either in 6/8 or 2/2). However, there is still a sense of metric uncertainty; notes are frequently tied over bar lines and the meter gently shifts back and forth between 6/8 and 2/2. This rhythmic irregularity was inspired by the sound of rain, something which was an almost constant presence in my life during the four years I lived on Vancouver Island. When I was writing this particular passage, I was listening to the sound of rain outside my window and wanted to imitate, in an indirect way, the sound of rain drops, which are sometimes steadily rhythmic and at other times completely unpredictable. In the passage at bs. 64-79, where the tonal center makes a comfortable landing on F, the metric accent

is much more predictable, remaining in a steady 6/8. But, because of the nature of the two lines, which should work independently of each other instead of being treated as a composite rhythm, and because of the tightly-spaced pitches which are constantly falling into unisons and then moving apart by step motion, this section ends up being a 6/8 wash of sound. Each line plays with the rhythm of 6/8, but never (until b. 176) does so in the same way at the same time. After this section, the activity level of the piece remains stable for quite a significant period.

During the process of composition, I generally write the music from beginning to end. (The only exception to this approach in *The Art of Light* was at the very beginning, where I composed the opening piano solo before the pitched percussion trio.) I feel that this method of composition allows me to build a piece more carefully and create a unified work, using almost every scrap of material that appears at the beginning of the piece and transforming it over time until I have reached the end. By working in this way, I can be completely aware of what has come before when I make decisions about what to do next. My concept of any given piece often changes as I work on it; I reach a certain point, and my original plans (which are always rather tentative) must be completely revised to accommodate the musical material that has developed in somewhat unexpected ways. By the time I reached bar 122, I was convinced that the piece would carry on at the same pace for a few more minutes before it ended. However, I quickly realized that this plan was not satisfactory. In the process of composition, I became stuck. Where to go next?

What to do? Any moves I made from that point seemed to lead to stagnation of the musical material. Things were becoming too predictable; there was nowhere else to go, nothing to do. I was commenting on this in an abstract way to my composition teacher, Christopher Butterfield, who had yet to see the piece, when he recommended that I “throw things out of orbit.” Since this sounded like an interesting idea, I began to think of experimenting with “throwing the piece out of orbit” by gradually speeding up the activity of the material which I saw, in retrospect, was exactly what I had done in a gradual manner in bs. 1-79. This is when I began to write the viola line at b. 127, with its alternations of sixteenth notes and eighth notes, which I used to ease into constant sixteenth notes. By b. 138, the level of activity of the melodic line has increased, although the harmonic motion is still quite slow (changing every two bars) giving stability to this shift in motion. The change to sixteenth notes allowed me to gradually shift the activity level even higher in b. 138 by accelerating the tempo from dotted quarter note equals MM60 to quarter note equals MM75. While the pace of the music quickens at b.138, I do not really feel it is emphasized until it is punched out by the trumpet solo in bs. 142-145. I had originally intended to keep the tempo the same in bs.138-153, but realized after I wrote the passage that while the musical material seemed suitable to me and the placement of both the trumpet and piano solos were good (helping to punch out the sixteenth notes, reminding the listener of the previous piano solos, and providing a break in the pattern of orchestration), the tempo was simply too fast. I did not want to

create a frantic mood as much as a very strong and determined one for each instrument. In order to do this, it was necessary to bring the tempo down slightly. As it turns out, this provides a good transition in terms of tempo into the next section. Bars 154-161, which I consider the climax of the piece, is the point where stasis and activity finally meet. The piano part is very fast since it consists almost entirely of sixteenth notes, yet the material is static since it is mostly a repetition of neighbor notes. This material is superimposed on that of the strings, which quietly play a variation of the material from b. 64-74, barely audible under the piano line. The violins and cellos, clearly moving much more slowly than the piano, recall the slower pace of the opening of the piece, allowing the music to wind down. At b. 162, this struggle between the fast and the slow ends, and the string material continues, almost oblivious of what has been happened in the piano. Meanwhile, over the top of it, there are echoes of the sixteenth-note activity in the winds. Playing intermittently at MM55, they provide a transition between the active material of the piano and the slower pace that is to come. The violin and viola duet in bs. 174-183 acts as a further transition, slowing the pace of the music down to a single moderate level of activity. In terms of orchestration, it is also intended to remind the listener of previous string solos, especially that of the viola in bs. 127-137. While I had originally planned to bring the level of activity down in a gradual manner, I realized that the material of bs. 138-149 was too significant to be dropped altogether, and that it needed to return in some way at the end of the piece - a sort of "fake ending", where one gets to listen to all the

stops being pulled out for the big finale while giving the piano a final solo, now incorporating slightly more showy material. I had originally intended to move from the fast and furious pace of bs. 188- 198 directly to the pitched percussion quartet, yet the move was too abrupt and did not suitably balance the orchestration of the work. Instead, I decided to give the brass one last hurrah before the end of the piece. It recalls the importance of the brass instruments in bs. 142-145, serves as a transition between the fast piano solo and the slow percussion quartet, and allows one last statement of the [0,1,3] kernel (F-sharp - G - E) before it is taken over by the percussion. The sudden change from brass also highlighted the particular color of the vibraphones and crotales (it is important to note that I chose not to use these instruments for a significant length of time before this ending in order not to create an instrumental anacrusis). Once again, the music returns to a slightly static form that is only interrupted by the grace notes in the timpani, the color of which is so different from that of the vibraphones and crotales that it almost intrudes on their world. Thus, we can see that *The Art of Light* begins with stasis, gradually increases the level of activity until it becomes rather frenzied (well past the mid-point of the piece), drops back to a moderate pace for a short time, recapitulates rhythmically active material, and returns to a state of near-stasis.

## XI. Naming a Piece

How did *The Art of Light* come to be called *The Art of Light*? Why use an almost programmatic name for a piece which would not seem to have any programmatic content? Naming a piece is a difficult matter. How much does a title influence what we hear? Can a title alone bring programmatic aspects to an otherwise abstract work? If one does have a program, is it best to make it clear through a few descriptive words, or is it best to be subtle? If I have a program, will it be obvious to the listener? Does my nude descend the staircase? If Duchamp had called his famous work *Cubism #1* would there have been any less of an uproar? With programmatic music, there can be a tendency for the audience to grasp the story more than the music itself. What was otherwise acceptable music can be ruined by an uncarefully bestowed title. (“Yes dear, that Ives was a very interesting man, but I just do not think that sounded anything like the Alcott family.”)

Let me be clear at the outset: *The Art of Light* does not have a program. It is, however, shaped by certain things that I heard around me or that happened to me while I was writing the piece (as is true of most artists). The clearest example of this is one I have already mentioned: the opening piano solo which was inspired by the sound of the rain. But why title this piece *The Art of Light* instead of *Piece for Orchestra*? Because I believe that names may have significance to the listener, and you can create or destroy a mood with them, or add extra facets to the piece using a careful word here or there, or

draw connections between a piece of music and an entirely unrelated concept through careful references made in the title. I have always been fascinated with this power of language over the interpretation of music. I like to create titles which have double or triple meanings working at separate levels simultaneously; the surface level leads the listener in a certain direction, but the other meanings are generally significant only to myself or to people who know me or who are familiar with the creation of the work. I began doing this very early on when I titled a three-movement work for cello and piano *Ars Nova/Ars Vetus?*. The first movement of this piece was begun in the spring of 1991. At the time, I had two major assignments due at university: I had to write a piece using a tone row for a composition class, and I had to write a large essay on music of fourteenth-century France for a musicology class. Somehow, I had to complete both in the course of four days. Writing the piece turned out to be one of the most tortuous things I had to do as an undergraduate composer: I was using a nine-tone row, but it drove me to distraction that I had to follow a system strictly and ignore the pitches I heard in my head which did not fit the row and its permutations. Since it was a new technique to me, it felt like New Art, and since it became so tied up in my own head with that terrible essay on the Ars Nova of France (which, I must say, I now do not remember writing at all), I felt it deserved the title. As a reaction to having to compose using a strict system, I began another two movements for cello and piano approximately two months after I had completed *Ars Nova*. These were freely-composed works and signified, for me, a return

to the tonal language with which I felt more comfortable. Because these pieces were written with *Ars Nova* in mind, I decided to call them *Ars Vetus?*, tacking the question mark on the end as a way of asking: what is new art and what is old art? I had just written a piece using what I considered “old techniques” (of course, not knowing much about serialism at the time, I considered it a “new technique” instead of something that had been a standard practice for the past sixty years), but did that mean that my piece was old? No, it was new – just as new as *Ars Nova* was. While I had originally intended these pieces to be played side by side, it was not until two years later that I actually made them one single piece.

In the spring of 1994, I was asked by Rhonda Rider, the cellist of the Lydian String Quartet, to write another piece for cello and piano. The piece was begun directly after the death of my father’s mother, Mary Virginia Stiles, who died in the summer of 1994. The entire time I was writing the piece, I thought of her: her humor, her kindness. Yet, I also took my feelings about her death and put them into the piece; it contains anger, sadness, and quick changes from one idea to the next. Since the other cello and piano piece(s) had been called *Ars Nova/Ars Vetus?*, it only seemed fitting to call this piece *Ars -----*. But what kind of art was it? Well, in the first place, it was a sort of infant art; I was experimenting with a number of things I had never tried before and my musical language was expanding. When I came across the Latin word *infans* in the dictionary, it was defined not with the word “infant”, but first with the word “speechless”

(since infants are not known to launch into discourse, this seemed reasonable). At that time, having just completed the piece, I was able to think back upon the many times during the process of composition when I had struggled with writer's block, and also the times when I had found it difficult to express my feelings about my grandmother's death. I felt speechless. Thus, I decided upon the title *Ars Infans*.

Before we go any further, I have to add that, at first, I was not going to call *The Art of Light* by that name. The piece was, for a long time, related in my own mind to the topiary tree. In 1996 my mother's mother, Anna Purbaugh, painted a picture of a topiary tree. She was an amateur painter, having taken up the brush at the age of seventy-seven when she found that she was going blind. She taught herself how to paint by watching every art class broadcast on Public Television for thirteen years, and her paintings now hang in every household in the family. She was a talented artist, but she was very critical of her own work. She was most interested in painting realistic scenes of flowers or landscapes, but all of her work showed the world as she saw it through her own eyes which had been damaged by macular degeneration. My grandmother's painting of the topiary tree was her most modern-looking work. It was a pruned tree with pink flowers in a large wicker basket in front of a strangely ominous background which had originally been black but, when she thought it was too dark, had been painted over with some sort of pastel green, creating a wash in which the strangely luminescent green still contained shadows and small patches of the darkness behind it. In short, she hated it. It was too

dark, it was not properly detailed...her list of criticisms went on and on. But I liked it (as I still do) and I rescued it from destruction when I went to visit her that year. When I brought it back to my apartment, I realized I had so many of her paintings hanging on my wall that I had run out of room for the topiary tree, so for a time the picture sat next to the keyboard where I compose, and I would look at it occasionally as I was working, perhaps taking a sense of atmosphere or mood from it when I had writers' block. I dedicated the orchestral piece (still in an unfinished state) to my grandmother for her ninetieth birthday on January 1, 1999 and presented it to her as a gift. Four months later, she died. In January, I had thought of naming the orchestral piece *The Topiary Tree* after the painting she had done, but the name seemed more and more unsatisfactory as time went on. Maybe a member of the audience would have different memories of topiary trees they had seen, maybe she would think of topiary trees in humorous shapes, maybe he would think of a sunny day with a pretty topiary tree in the garden. I didn't want the piece to be thought of in that way. My topiary tree had a strange, dark, modernist background. The opening of the piece did not resemble a sunny day or a happy plant in someone's backyard; it was more mysterious than that. I then toyed with titling the piece *The Garden of the Topiary Trees*, thinking of the eerie feeling one might get if one was wandering alone through an entire garden of topiary trees, but it still wasn't lonely or dark enough. *Night in the Garden of the Topiary Trees* was even worse: it was pseudo-exotic, it had too many words (how could anyone remember a title that long? I

envisioned years of having to correct people who would ask about my piece called *Night of the Something*, or *A Garden at Night*), and it made people create pictures in their head that had never been there for me in the first place. With some difficulty, I finally abandoned the idea of the topiary tree. Its spirit still sits in the music somewhere, but the title was inadequate for the piece. I decided to turn to a title which was more abstract, and it was then that I returned to the theme of *Ars*. Like the cello and piano pieces, I feel this work is transitional. It looks at both the calm, free, unmetred style in which I've been writing for the past few years, and the love of rhythm and syncopation I've always had. It is neither tonal nor atonal in any traditional sense. It is simple, yet it is not simplistic. It is a look back, but it is also a look forward, to places I might go in the future, combining all of these things comfortably in a way that suits me. However, since this is not a cello and piano piece, I hesitated to use a Latin title, referring directly back to those works. I almost feel as if I must save the *Ars* for my next cello and piano piece. Thus, I chose to name the piece in English. English is also helpful because it makes the meaning of the title clearer to North American audience members (most of whom speak English to some extent). Then, when I thought of the sounds in the piece, especially the sound of the bowed vibraphones and crotales, I thought of light -- streams of light. *The Art of Light* seemed to set an appropriate atmosphere at the beginning of the piece if people thought of the title while they heard the music, and also to be reasonably abstract in that it referred to nothing in particular. In retrospect, I can see that the image of the

piece has, in my own mind, gone from dark to light, but I think it still has that aspect of the mysterious, the ethereal.

## XII. The Audience

Throughout this document, I have found myself referring again and again to the audience. I find that, as I write, I constantly envision the ensemble on the stage and myself in the audience, hearing all the sounds I have created, visualizing what the players will be doing. I have done that for a number of years now. In the process of composition, I try every day to begin work by approaching the piece as if I knew nothing about it, playing through it at the piano, hearing it in my head as if I were an outsider sitting and listening to the world premiere. This does not mean that I write what I imagine other people want me to write, this merely means that I write what seems to make sense to me within the context of a concert -- what I want to hear. While I am very personally involved in my work, I try to divorce myself from it for five or ten minutes every day to gauge its quality according to my own standards as an audience member. I was reading a collection of essays by Alice Walker entitled In Search of Our Mothers' Gardens when I discovered, in an essay entitled "Saving the Life that Is Your Own: The Importance of Models in the Artist's Life," a small paragraph amongst all the others that particularly struck me:

It has been said that someone asked Toni Morrison why she writes the kind of books she writes, and that she replied: Because they are the kind of books I want to read.<sup>15</sup>

Like Toni Morrison, I compose what I would like to listen to.

The issue of the audience takes on a certain level of complexity for those of us who write in an academic environment. You can't help but notice that there are always at least a couple of undergraduate students who are screaming about wanting to write for the audience. To most, that means spoon-feeding the audience what we imagine they want to hear: a good tune and a V-I cadence. For them, the audience becomes a mass of consumers. The teachers of these students clap their hands to their foreheads in frustration. ("How can we teach them about art if all they want to do is write music fit for wine commercials?") The students wail and gnash their teeth; it's a particular kind of hell where they can't express themselves the way they want without fear of failing the course. Those students who aren't busy roasting in the pits of their own unacceptable creativity are trained to find their "inner voice," to say what they think, to compose whatever they want, to care nothing for the audience. They create Art, and are well-rewarded within the academic establishment with prizes, scholarships, praise, and the promise of career advancement. The teachers feel that their time is well-spent with these students, and this, of course, makes them happy; there is nothing better than a job well done. What few people seem to notice is that, in these cases, the concept of the audience has merely been shifted from the concert-goers to the professors. The people who tell the students not to care about the audience have become the audience. They become the consumers. They want the students to care about what they think. In the case of a doctorate degree in composition, this situation can become even more acute: the piece

must pass muster before a committee of professors before the student is allowed to graduate. This leads us to the question: who is the audience? Is it the people who sit in the recital hall on the night of the premiere? Is it the professor who taught the composer certain techniques of composition? Is it the performer, who certainly wouldn't want to play anything she doesn't like? Is it the man with the suit sitting in the top-floor office of the biggest record company on the planet? Is it the composer? Is it the composer who imagines being the concert-goer? Is it the composer who imagines being the musician? Is it the composer who imagines being the teacher? The audience is everywhere and we cannot escape it. We must choose for ourselves whom we would like it to be with the full knowledge that it may influence the work. Getting caught between conflicting perspectives may ruin the artist, or it may ruin the work. Art is a dangerous operation we perform on ourselves, to coin a phrase of Morton Feldman.<sup>16</sup>

Perhaps we have reached the conclusion: a journey from the inner world to the outer world in sixty-three pages. I wish I could sum up everything in some beautifully-constructed paragraph, a memorable sentence or two, rounding the document off with an inspirational quote. Unfortunately, I don't think I can. Just as *The Art of Light* slowly fades into the background at the end, so must this document. My life is still a work-in-progress. My approach to composing, which is intimately tied up with my life, is a work-in-progress. The dissertation has ended, but the composing -- what I've done every day, what I've done for years -- still continues.

## Endnotes

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- <sup>1</sup> Bernstein, L. The Unanswered Question: six talks at Harvard (Harvard University Press, 1976)
- <sup>2</sup> Didion, J. "Why I Write" in The Writer on Her Work ed. J. Sternberg (W.W. Norton & Co., 1980): 19
- <sup>3</sup> Schoenberg, A. Fundamentals of Musical Composition ed. G. Strang (Faber & Faber, 1970)
- <sup>4</sup> suggested by Dr. Harald Krebs, as he was reading the first draft of this document
- <sup>5</sup> *Composing a Career: a career development symposium for women composers* presented by The Women's Philharmonic at Mills College in Oakland, California, November 15 & 16, 1997
- <sup>6</sup> Feldman, M. Morton Feldman Essays, ed. W. Zimmerman (Beginner Press, 1985): 239
- <sup>7</sup> Westergren, G. Time: Experiences, Perspectives, and Coping-Strategies (Uppsala, 1990): 3
- <sup>8</sup> Black, R. "A Contextualistic View of Time and Mind" in Time and Mind: Interdisciplinary Issues, The Study of Time Vol. 4 ed. J.T. Fraser (International Universities Press, 1989): 62
- <sup>9</sup> Orme, J.E. Time, Experience, and Behaviour (Ilfle Books, 1969): 9-10
- <sup>10</sup> North, A.C., Hargreaves, D.J., & Heath, S. "Musical Tempo and Time Perception in a Gymnasium" in *Psychology of Music* 26 (1998): 78-88
- <sup>11</sup> North, Hargreaves, & Heath. "Musical Tempo and Time Perception in a Gymnasium" in *Psychology of Music* 26 (1998): 78
- <sup>12</sup> Orme, J.E. Time, Experience, and Behaviour, (Ilfle Books, 1969): 12

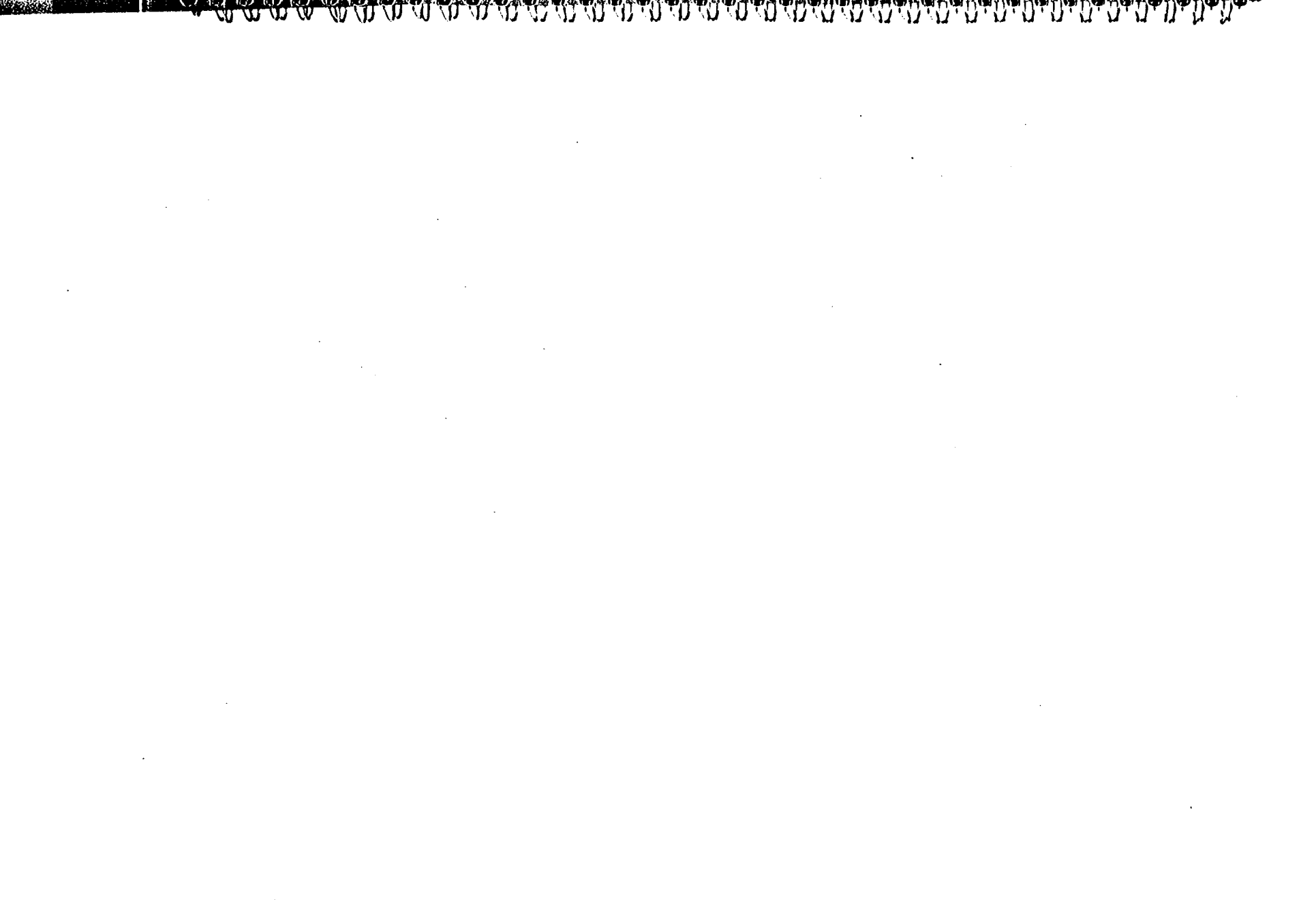
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- <sup>13</sup> Stravinsky, I. "Some Ideas About My Octuor", in Music in the Western World: A History in Documents ed. P. Weiss & R. Taruskin (Schirmer Books, 1984): 459
- <sup>14</sup> Holtslag, P. "Georg Philipp Telemann: The Twelve Fantasies for Recorder" (Globe, 1994)
- <sup>15</sup> Walker, A. "Saving the Life That Is Your Own: The Importance of Models in the Artist's Life", In Search of Our Mothers' Gardens (Harcourt Brace Jovanovitch, 1983): 7
- <sup>16</sup> Feldman, M. Morton Feldman Essays ed. W. Zimmerman (Beginner Press, 1985): 169

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# **The Art of Light**

a piece for orchestra

**Mary Stiles**

*The Art of Light* is dedicated to my grandmother and friend  
Anna Margaret Purbaugh  
(1909-1999)

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# **The Art of Light**

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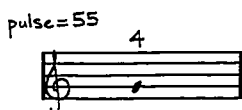
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### Performance Instructions

The opening percussion trio has been notated graphically using colors and numbers because it more closely conveys a sense of the music. The pulse, or tempo, of the music is marked above the system using standard metronome markings taken from a digital metronome. The red numbers above each pitch indicate the number of pulses, or beats, for which the pitch is to be held. Thus, red numbers indicate the duration of each note. For example:



This indicates that the note G is to be held for 4 beats. The beat, in this case, is marked at MM=55.

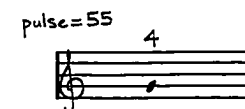
When one has completed playing one pitch, one should then move on to the next pitch. In the example below, it is clear that vibraphone I should play C for 3 beats, the crotales should then play D for 2 beats, there should be a 2-beat rest (durations of rests, notated in the same manner as the durations of the notes, are always enclosed in parentheses), and vibraphone II should follow with an E which is held for 4 beats.

Notes which are to be played simultaneously are clearly marked by dotted lines in green.

The final percussion quartet, which is marked "no pulse", is to be read graphically: the duration of each pitch is to be no longer than one bowstroke, and the space between each note should be improvised, taking into consideration the relative lengths of the spaces on the page and issues of phrasing. Significant pauses, often emphasizing phrases, are signified by quarter-note rests, yet their duration should be chosen by the performers improvisationally. The entire section should be very slow and calm.

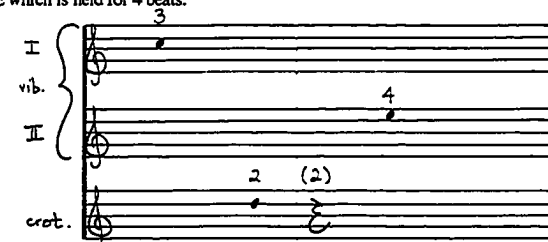
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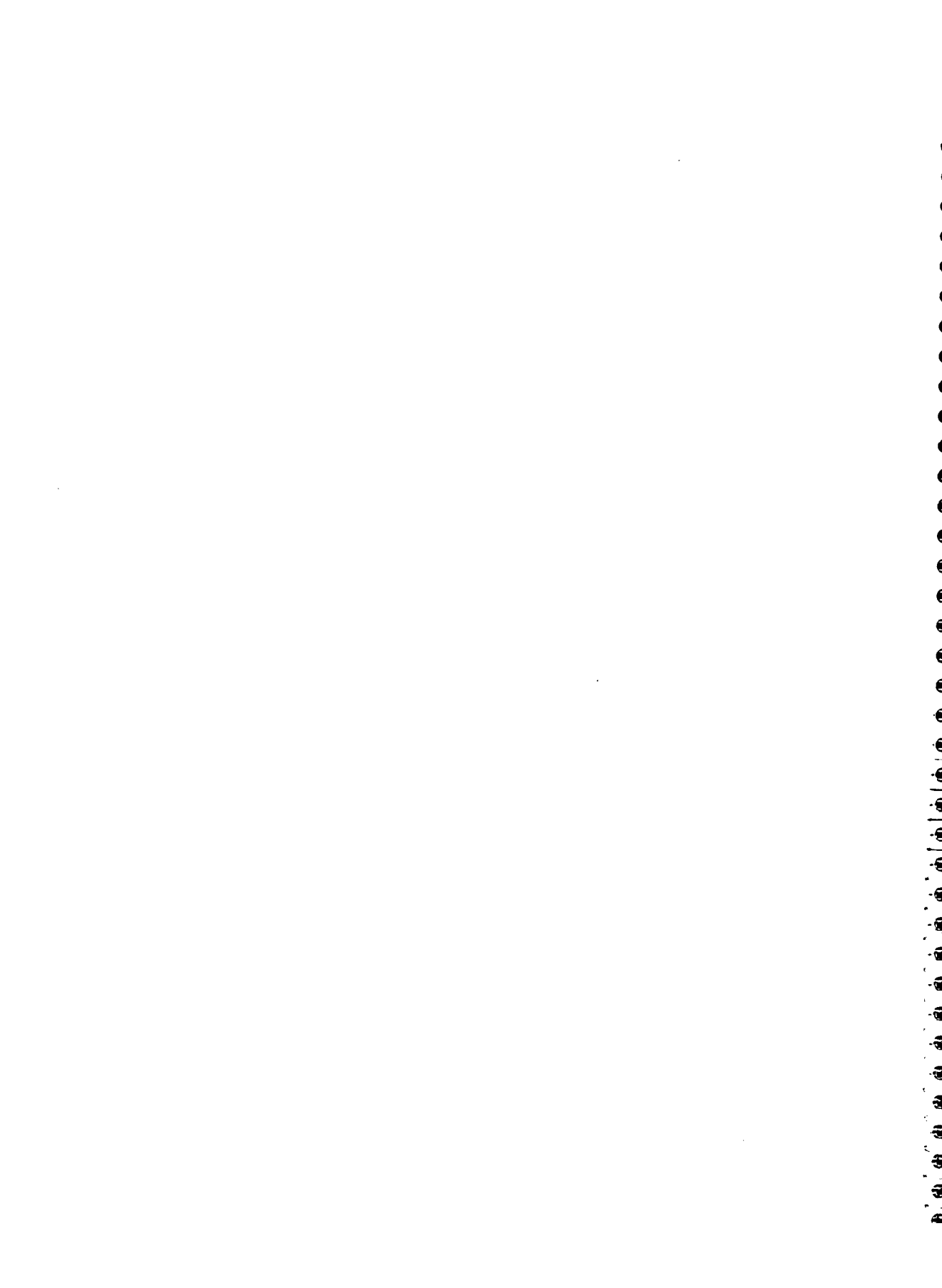
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## **Instrumentation**

2 flutes  
1 oboe  
2 clarinets in B flat  
2 bassoons  
2 horns in F  
1 trumpet in C  
1 tenor trombone  
1 tuba in C  
timpani  
3 percussionists:  
*vibraphone I \**  
*vibraphone II \**  
*1 full set of crotales (2 octaves) \**  
piano  
violin I  
violin II  
viola  
cello  
double bass

- \* vibraphone I should be placed center stage, behind the winds and brass
- vibraphone II should be placed stage right, behind the cello section
- crotales should be placed stage left, behind the violin I section

**Instrumentation**

2 flutes  
1 oboe  
2 clarinets in B flat  
2 bassoons  
2 horns in F  
1 trumpet in C  
1 tenor trombone  
1 tuba in C  
timpani  
3 percussionists:  
*vibraphone I \**  
*vibraphone II \**  
*1 full set of crotales (2 octaves) \**  
piano  
violin I  
violin II  
viola  
cello  
double bass

\* vibraphone I should be placed center stage, behind the winds and brass  
vibraphone II should be placed stage right, behind the cello section  
crotales should be placed stage left, behind the violin I section



pulse = c.55

flutes I, II

oboe

clarinet in B<sup>b</sup> I, II

bassoons

horns in F I, II

trumpet in C

tenor trombone

tuba in C

timpani

bowed  
i.v. sempre

3 (7) 3 (6) 3 (4)

*f*

*f*

*f*

vibraphone I

mp

vibraphone II

scatolas

piano

violin I

violin II

viola

cello

double bass

pulse = c. 55

Musical score for various instruments. The score is written on multiple staves. The instruments listed are:

- Flutes I, II
- Oboe
- Clarinets in Bb I, II
- Bassoons
- Bassoons in Eb
- Trompet in C
- Horn in Eb
- Trombon
- Trombone I
- Trombone II
- Scatolates
- Piano
- Violin I
- Violin II
- Viola
- Cello
- Double Bass

Handwritten annotations include:

- 3 (A)
- 2 (A)
- 3 (A)
- bowed in. sempre
- mp
- f

Handwritten musical score for the first system, featuring two violins (I and II) and a crotchet (Crot.).

**Violin I:** Treble clef, 4/4 time signature. Notes include a quarter note with a fermata and a slur, followed by a half note with a slur. Fingering numbers 4, (3), 3, and (4) are written above the staff. Dynamic markings include *f* and *mf*.

**Violin II:** Treble clef. Notes include a quarter note with a slur and a half note with a slur. Fingering number (3) is written above the staff. Dynamic marking *mp* is present.

**Crotchet:** Treble clef. Notes include a quarter note with a slur and a half note with a slur.

Handwritten musical score for the second system, featuring two violins (I and II) and a crotchet (Crot.).

**Violin I:** Treble clef. Notes include a quarter note with a slur and a half note with a slur. Fingering numbers 3, (4), 3, and (1) are written above the staff. Dynamic markings include *f* and *mf*.

**Violin II:** Treble clef. Notes include a quarter note with a slur and a half note with a slur. Fingering numbers 3 and (6) are written above the staff. Dynamic marking *mp* is present.

**Crotchet:** Treble clef. Notes include a quarter note with a slur and a half note with a slur.

Handwritten musical score for the third system, featuring two violins (I and II) and a crotchet (Crot.).

**Violin I:** Treble clef. Notes include a quarter note with a slur and a half note with a slur. Fingering numbers 2, (1), 3, and (1) are written above the staff. Dynamic markings include *f* and *mf*.

**Violin II:** Treble clef. Notes include a quarter note with a slur and a half note with a slur. Fingering numbers 4 and (2) are written above the staff. Dynamic marking *mf* is present.

**Crotchet:** Treble clef. Notes include a quarter note with a slur and a half note with a slur. Fingering numbers 4 and (1) are written above the staff.

Handwritten musical score for the fourth system, featuring two violins (I and II) and a crotchet (Crot.).

**Violin I:** Treble clef. Notes include a quarter note with a slur and a half note with a slur. Fingering numbers 3, (1), 4, (2), 3, and (1) are written above the staff. Dynamic markings include *f* and *mf*.

**Violin II:** Treble clef. Notes include a quarter note with a slur and a half note with a slur. Fingering numbers 4 and (2) are written above the staff. Dynamic marking *mf* is present.

**Crotchet:** Treble clef. Notes include a quarter note with a slur and a half note with a slur. Fingering number 3 is written above the staff.

3.5

2  
ve

I  
vib. I  
vib. II  
crot.  
pno.

$\text{♩} = \text{♩} 55$

2  
I  
vib.  
II  
crot.  
pno.

Ped.

$\text{♩} = \text{♩}$

7  
I  
vib.  
II  
crot.  
pno.

3.15

I  
vib. *f*

II  
vib. *f*

crot. *mp*

pno. *f*

I  
vib. *f*

II  
vib. *f*

crot. *mp*

pno. *f*

I  
vib. *f*

II  
vib. *f*

crot. *mp*

pno. *f*

I  
vib. *f*

II  
vib. *f*

crot. *mp*

pno. *f*

3.15

I  
vib. *f*

II  
vib. *f*

crot. *mp*

pno. *f*

3.15

I  
vib. *f*

II  
vib. *f*

crot. *mp*

pno. *f*

3.15

I  
vib. *f*

II  
vib. *f*

crot. *mp*

pno. *f*

11

fl.

hrn.

timp.

pno.

Ped. Ped.

15

fl.

hrn.

timp.

pno.

meno rit.....a tempo

solo

p

pp

19

fl.

hrn.

timp.

pno.

(d = d.)

p

pp

mf

p

$d = d.$

23

fi.  
ob.  
cl. *solo*  
*p* *niente*  
bsn.

hrn.  
tmpt.  
trbn.  
tuba

timp.  
I  
vb.  
II  
crot. *with mallet*  
*mf*

pno. *mf* *p*  
Ped.

I  
vln. *solo* *senza vib.*  
*p*  
II  
vla.  
vlc.  
d.b.



$\text{♩} = \text{♩}$

fl.

ob.

cl.

bsn.

hrn.

trpt.

trbn.

tuba

solo

mp

p

timp.

I

vib.

II

crot.

pno.

mp

p

Ped.

I

vln.

II

vla.

vlc.

d.b.

(solo) con vib.

mp

p

solo senza vib.

p

fl.

ob.

cl.

bsn.

mp  $\rightarrow$  p

solo p

(solo) p

solo p

hcn.

tmpt.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pno.

mp

p

f

Ped. Ped. Ped.

I vln.

II vln.

vla.

vlc.

d.b.

(solo) con vib. p

(solo) mp  $\rightarrow$  p

mp  $\rightarrow$  p

$\lambda = d$

38

fl. ob. cl. bsn. horn. tmpt. trbn. tuba timp. I vib. II crot. pno. I vln. II vln. vlc. d.b.

fl. ob. cl. bsn. horn. tmpt. trbn. tuba timp. I vib. II crot. pno. I vln. II vln. vlc. d.b.

32

fl. ob. cl. bsn. horn. tmpt. trbn. tuba timp. I vib. II crot. pno. I vln. II vln. vlc. d.b.

fl. ob. cl. bsn. horn. tmpt. trbn. tuba timp. I vib. II crot. pno. I vln. II vln. vlc. d.b.

fi.

ob.

cl.

bsn.

hcn.

tmpt.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pno.

I vln.

II vln.

vla.

vlc.

d.b.

Handwritten musical score for page 36, measures 36-39. The score includes staves for woodwinds (flute, oboe, clarinet, bassoon, horn, trumpet, trombone, tuba), percussion (timpani, cymbals), strings (piano, violins I & II, viola, cello, double bass), and harp. The piano part features a melodic line with dynamics p, mp, and pp. The string parts include a solo for Violin I and a tutti for Cello and Double Bass.

fl.

ob.

cl.

bsn.

hrn.

tmpt.

trbn.

tuba

timp.

I  
vib.  
II

crat.

pno.

vla. I

vla. II  
div.)

vla.

vlc.

db.

*d = c. 60*

36

fl. ob. cl. bsn. hrn. tmpt. trbn. tuba timp. I vib. II crot. pno. vln. I vln. II (div.) vla. vlc. d.b.

40

fl. ob. cl. bsn. hrn. tmpt. trbn. tuba timp. I vib. II crot. pno. vln. I vln. II (div.) vla. vlc. d.b.

$\text{♩} = \text{♩}$

fl. *mf* *es*

ob.

cl.

bsn.

hcn.

tmpt.

trbn.

tuba

timp. *mf*

I vib.

II vib.

crot. *bowed* *mf* *(mf)* *mp* *with mallet*

pno. *mp*

*ped.*

I vln. *mp*

II vln. *mp*

vla.

vlc.

d.b. *mp*

fl. *mp*

ob.

cl.

bsn.

hcn.

tmpt.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pno.

Ped. Ped.

I vla.

II vla.

vla. *mp* *f.* *p* *mp*

vcl.

d.b.

*solo senza vib.*

*con vib.*

*tutti div.*

$d = d.$

44

fl. *mf*

ob.

cl. *mp*

bsn.

horn.

trump. *mf*

trbn.

tuba

timp. *mf*

I vib. *mf*

II vib. *mf*

crot. *mf*

pno. *mf*

Red.

I vln. *mf*

II vln. *mf*

vla. *mf*

vcl. *mf*

db. *mf*

48

fl. *mp*

ob.

cl.

bsn.

horn.

trump.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pno.

Red.

I vln. *mp*

II vln. *mp*

vla. *mp*

vcl. *mp*

db. *mp*

Musical score for page 53, featuring various instruments including flutes (fl.), oboe (ob.), bassoon (bsn.), horns (hrn.), trumpets (trp.), trombones (trbn), tuba (tuba), timpani (timp.), vibraphone (vib.), woodwinds (winds), and strings (str.). The score includes dynamic markings such as *mp* (mezzo-piano) and *p* (piano), and performance instructions like *sol.* (solo) and *pizz.* (pizzicato). The woodwind section (fl., ob., bsn.) has a solo passage starting at measure 1. The string section (str.) is marked *pizz.* and *mp*. The percussion section (timp., vib., wdr., str.) has a complex rhythmic pattern. The brass section (trp., trbn, tuba) has a steady rhythmic accompaniment. The woodwind section (winds) has a melodic line with some rests. The string section (str.) has a rhythmic accompaniment. The percussion section (timp., vib., wdr., str.) has a complex rhythmic pattern.

fl. *solo*  
 ob.  
 cl. *a2*  
 bsn. *pp*

hrn.  
 tupt.  
 trbn.  
 tuba

timp.  
 I vib.  
 II vib.  
 crot.

pno.

I vln. *solo*  
 II vln. *solo*  
 vla.  
 vlc.  
 d.b.

fl. (solo) mp

ob.

cl. solo mp

bsn.

hcn.

trpt.

trbn.

tuba

timp.

I vib. II

crot.

pno. *mp*

I vln. II vln. vlc. vlc. d.b. *pizz. mp*

fl. solo *p*

ob.

cl. solo *p*

bsn. solo *pp*

hcn.

trpt.

trbn.

tuba

timp.

I vib. II

crot.

pno. *mp*

I vln. II vln. vlc. vlc. d.b.

fi.

ob.

cl. <sup>a2</sup>

bsn. *p* *pp*

hrn.

tmpt.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pno.

I vln.

II vln.

vla. *p* *mp*

vcl.

d.b. *mp*

*with mallet* *lv.* *mf* *p*

*with mallet* *lv.* *mf* *sf*

*tutti* *mp*

*tutti* *mp*

*tutti* *mp*

fl.

ob.

cl. *p* *pp*

bsn.

hrn. *a2* *mp*

tmpt.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pro.

I vln.

II vln.

vla.

vlc. *mp*

d.b. *arco* *mp*

63

fl. ob. cl. bsn. horn. timp. trbn. tuba timp. I vib. II crot. pno. I vln. II vla. vlc. d.b.

68

fl. ob. cl. bsn. horn. timp. trbn. tuba timp. I vib. II crot. pno. I vln. II vla. vlc. d.b.

fl. <sup>42</sup>  
 ob.  
 cl.  
 bsn.

hrn.  
 tmpt.  
 trbn.  
 tuba

timp.  
 I  
 vib.  
 II  
 crot.

pno.

I  
 vln.  
 II  
 vla.  
 vlc.  
 d.b.





fl.

ob.

cl.

bsn.

hcn.

trpt.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pno.

Ped.

I vln.

II vln.

vla.

vlc.

d.b.

mf

mp

p

decresc.....p

tutti (div.)

unis.

bowed

fl.

ob.

cl. *solo*

bsn. *solo* *p* *pp.* *solo pp.*

*p* *p*

hcn.

tmpt.

trbn.

tuba

timp.

I

vib.

II

crot.

pno.

*mf* *p* *mp*

*pp.* *pp.* *pp.* *pp.* *pp.*

*Ped.* *Ped.* *Ped.* *Ped.* *Ped.*

I

vln

II

vla.

vcl. *solo* *p*

*p* *p.* *p.* *solo* *pp.* *p*

d.b.



solo

solo  
senza vib.

fl. *p* *mp* *mp*

ob.

cl.

ban. *a2* *mp*

hrt. *a2* *p* *mp* (div.)

tmpt. *mp*

trbn. *mp*

tuba

timp. *mp* bowed

I vib. *mf* bowed

II vib. *mf* bowed

crot. bowed *mf*

pro.

I vln. solo *mf*

II vln.

vla. *tutti* *p* *mp*

vlc. *tutti* *p* *mp*

db. *mp*

fl.

ob.

cl. *solo*  
mp

bsn. *p solo*  
*niente*

hrn.

tmt.

trbn. *p*

tuba *mp* *cresc.....*

timp. *mp*

I vib.

II vib. *mf*

crot.

pna.

I vln. *tutti*  
*mp* *cresc.....*

II vln. *mp* *cresc.....*

vla. *solo*  
*mp*

vlc. *mp* *cresc.....*

d.b. *mp* *cresc.....*

20 stave Piccolo Pd 22

Fl. I  
Ob.  
Cl.  
Bsn.  
Hrn.  
Tmpt.  
Tbn.  
Tuba  
Timp.  
Cym.  
Perc.  
Vln. I  
Vln. II  
Vla.  
Vcl.  
Cb.

98

20 stave Piccolo Pd 22

Fl. I  
Ob.  
Cl.  
Bsn.  
Hrn.  
Tmpt.  
Tbn.  
Tuba  
Timp.  
Cym.  
Perc.  
Vln. I  
Vln. II  
Vla.  
Vcl.  
Cb.

93

tenderly

solo(I)

solo(II)

fi. *P* *P*

ob.

cl.

bsn. *a2* *mf* *f*

hrn. *a2* *mf* *cresc.* *f*

trpt.

trbn. *(cresc.)* *f*

tuba *(cresc.)* *f*

timp. *mf*

I vib.

II vib.

crot. *with mallet* *mp*

pno. *mp* *f* *Ped* *Ped*

I vln. *(cresc.)* *f*

II vln. *(cresc.)* *f*

vla. *tutti* *mf* *f*

vcl. *(cresc.)* *f* *solo* *P* *f*

d.b. *(cresc.)* *f*

fl. *solo (I)*  
*p mp*  
*b<sub>e</sub> b<sub>e</sub>*

ob.  
*p*

cl.  
*solo p*

bsn.  
*solo p*

hcn.  
*solo mp p*

trpt.  
*mp p*

trbn.  
*mp p*

tuba  
*mp p*

timp.

I vib.  
 II vib.

crot.  
*with mallet mf*

pno.  
*mf b<sub>e</sub> p p<sub>ed</sub> mp mf p<sub>ed</sub> mp*

I vln.  
 II vln.  
*solo mf*

vla.  
*(solo) mp p*

vcl.  
*(solo) mp p*

d.b.  
*solo pizz mp*

tenderly

solo (I)

solo (II)

fi. *mf* *f*

ob.

cl. *a2* *mf* *f*

bsn. *a2* *mf* *f*

hcn. *mf* *mp* *f* *mp* *f*

trpt. *mf* *mp* *f* *mp* *f*

tbn. *mf* *mp* *f* *mp* *f*

tuba *mf* *mp* *f* *mp* *f*

timp. *mf*

I vib. II

crot. *mf* *mp* *f* *mp* *f*

pno. *mf* *mp* *f* *mp* *f*

I vln. II *mf* *f*

vla. *mf* *f*

vlc. *mf* *f*

d.b. *mf* *f*

fi. *mp* *f* *mp* *f*

ob. *mp* *f* *mp* *f*

cl. *mp* *f* *mp* *f*

bsn. *mp* *f* *mp* *f*

hcn. *mp* *f* *mp* *f*

trpt. *mp* *f* *mp* *f*

tbn. *mp* *f* *mp* *f*

tuba *mp* *f* *mp* *f*

timp.

I vib. II

crot. *mp* *f* *mp* *f*

pno. *mp* *f* *mp* *f*

I vln. II *mf* *f*

vla. *mf* *f*

vlc. *mf* *f*

d.b. *mf* *f*

poco rit. ...

This page contains a musical score for measures 113 through 116. The score is arranged in a standard orchestral layout with the following parts from top to bottom:

- Flute (fl.)
- Oboe (ob.)
- Clarinet (cl.)
- Bassoon (bsn.)
- Horn (hcn.)
- Trumpet (tmpt.)
- Trombone (trbn.)
- Tuba
- Timpani (timp.)
- Violin I (I vib.)
- Violin II (II vib.)
- Contra (cot.)
- Piano (pno.)
- Violin I (I vln.)
- Violin II (II vln.)
- Viola (vla.)
- Violoncello (vlc.)
- Double Bass (d.b.)

The piano part (pno.) is the most active, featuring a melodic line with various dynamics: *p* (piano) at the start, *mf* (mezzo-forte) in the middle, and *mp* (mezzo-piano) towards the end. Pedal markings (*Ped.*) are present under the piano accompaniment. The violin II part (II vln.) has a *solo* marking in measure 116. The rest of the orchestral parts are currently blank.



113 a tempo

fl. ob. cl. bsn. hrn. tmpt. trbn. tuba timp I vib. II crdt. pno. I vln. II vla. vlc. d.b.

118  $\text{♩} = \text{♩}$

fl. ob. cl. bsn. hrn. tmpt. trbn. tuba timp I vib. II crdt. pno. I vln. II vla. vlc. d.b.

rit.....

122

fl. *a2* *p* *cresc.* *mp* *cresc.* *f*

ob. *p* *cresc.* *mp* *cresc.* *f*

cl. *a2* *mp* *cresc.* *f*

bsn. *p* *cresc.* *mp* *a2* *mp* *cresc.* *f*

hrn. *mp* *cresc.* *f*

trpt.

trbn.

tuba

timp.

I vib. *bowed*

II vib. *p*

crot.

pno. *ringing* *mp*

I vln. *p* *cresc.* *mp* *cresc.* *f*

II vln. *div.* *mp* *cresc.* *mp* *cresc.* *f*

vla. *p* *cresc.* *mp* *cresc.* *f*

vlc. *mp*

d.b.

127 *atempo*

fl. *mp* *p* *mp* *p*

ob.

cl. *mp* *p* *mp* *p*

bsn. *mp* *p* *mp* *p*

hrn. *mp* *p*

trpt.

trbn.

tuba

timp. *mp*

I vib.

II vib.

crot. *mp* *pp*

pno.

I vln. *solo* *mp*

II vln. *solo senza vib.* *mp*

vla. *mp*

vlc. *solo* *mf*

d.b. *mp* *p*

122 rit.....

fl. solo a2  
ob. mp  
cl. mp  
bsn. mp  
horn. mp  
timp.  
trbn.  
tuba  
vib. I  
vib. II  
crot.  
pno.  
vln. I  
vln. II  
vla.  
vlc.  
d.b.

127 a tempo

fl. solo a2  
ob. mp  
cl. mp  
bsn. mp  
horn. mp  
timp.  
trbn.  
tuba  
vib. I  
vib. II  
crot.  
pno.  
vln. I  
vln. II  
vla.  
vlc.  
d.b.

fl. *mp* *p* *mp* *a2* *b*

ob. *mp* *p* *solo II* *mp*

cl. *mp* *p* *solo I* *mp*

bsn. *mp* *p* *mp*

hrn. *mp* *a2* *solo*

trpt.

trbn.

tuba

timp.

I vib.

II vib.

crot. *mp* *bowed*

pno. *mp*

I vln. *solo* *senza vib.* *mp* *p*

II vln. *mp* *p*

vla. *mp* *p*

vcl. *tutti* *p* *vcl.*

d.b. *tutti* *p* *vcl.*

accel.....

fl. *mp* *p* *mp* *p*

ob.

cl. *solo* *mp* *p*

bsn. *a2* *mp*

hrn. *a2* *mf* *mp*

tbn. *p* *mp* *mf* (*mp*)

tuba *mf* (*mp*)

timp. *mf*

I vib. *mp*

II vib. *mp*

crot.

pno. *mp* *mf*

Ped. Ped. \*

I vln. *tutti-senza vib.* *mf* *p* *mf* *p* *convib. vln.* *mf* *mp*

II vln. *tutti-senza vib.* *mf* *p* *mf* *p* *convib.* *mf* *mp*

vla. *tutti* (*mp*) *mf* *mp*

vlc. *mp* *mf* *mp*

d.b. *mf* (*mp*)

*P* *mp*



♩ = c. 75

♩ = c. 105

139

fi. *cresc.* *f* *mp* *solo*

ob. *cresc.* *f* *mp* *solo*

cl. *cresc.* *f* *mp* *solo*

bsn. *cresc.* *f* *mp*

hcn. *mp cresc.* *vp.* *f vp.*

tmpt. *ff*

trbn. *mp* *p* *f*

tuba *mp* *p* *f*

timp. *mf* *f* *ff*

I vib. *mp*

II vib. *mp*

crot. *mp*

pno.

I vln. *solo I* *mp* *cresc.* *f* *mp* *solo senza vib.*

II vln. *solo II* *mp* *cresc.* *f* *mp* *solo senza vib.*

vla. *mp* *cresc.* *f* *mp* *unis.*

vik. *mp* *p* *f*

d.b. *mp* *p* *f*

This is a handwritten musical score for a symphony orchestra. The score is organized into systems, with each system containing multiple staves for different instruments. The instruments listed on the right side of the page are: Flute (fl.), Oboe (ob.), Clarinet (cl.), Bassoon (bsn.), Horn (h.rn.), Trumpet (timp.), Trombone (tbn.), Tuba (tuba), Timpani (timp.), Violin I (vln. I), Violin II (vln. II), Viola (vln.), Violoncello (vcl.), and Double Bass (db.). The score includes various musical notations such as notes, rests, dynamics (e.g., *mp*, *f*, *pp*), articulation (e.g., *stacc.*, *acc.*), and performance instructions (e.g., *con vib.*, *senza vib.*, *solo*). The notation is dense and detailed, typical of a professional manuscript.

$\text{♩} = c. 75$

139

fl. ob. cl. bsn. horn. tmpt. trbn. tuba timp. I vib. II crot. pno. I vln. II vla. vlk. db.

fl. ob. cl. bsn. horn. tmpt. trbn. tuba timp. I vib. II crot. pno. I vln. II vla. vlk. db.

143

fl. ob. cl. bsn. horn. tmpt. trbn. tuba timp. I vib. II crot. pno. I vln. II vla. vlk. db.

fl. ob. cl. bsn. horn. tmpt. trbn. tuba timp. I vib. II crot. pno. I vln. II vla. vlk. db.

solo

fi. *mp* *mf*

ob. *mp* *p*

I clar. *mp*

II clar. *mp*

bsn. *mp* *solo* *mp*

hrn.

tmpt.

trbn.

tuba

timp. *mp*

vib. I+II

crot.

pno. *mp*

I vln. *mp*

II vln. *mp*

vla. *mp*

vcl. *mp* *pizz*

db. *mp*

$\text{♩} = c.90$  (freely)

poco rit.....

149

$\text{E}^{\flat}$   $\text{E}^{\flat}$   $\text{E}^{\flat}$   $\text{E}^{\flat}$   $\text{E}^{\flat}$

fl.

ob.

I  
cl.

II

bsn.

hrn.

tupt.

trbn.

tuba

timp.

vib I+II

crot.

pno.

I  
vln.

II

vla.

vlc.

db.

freely

mf

Ped.

Ped.

146

fl. *solo* *mp*

ob. *mp*

I *mp*

clar. *mp*

II *mp*

bsn. *mp*

hcn.

trpt.

trbn.

tuba

timp. *mp*

vib. I+II *mp*

crot.

pno. *mp*

I *mp*

vln. I *mp*

II *mp*

vla. *mp*

vlc. *mp*

db. *mp*

149

fl. *poco rit.*

ob. *poco rit.*

I *poco rit.*

clar. *poco rit.*

II *poco rit.*

bsn. *poco rit.*

hcn.

trpt.

trbn.

tuba

timp.

vib. I+II

crot.

pno. *freely* *mf* *mf* *mf*

I *mf*

vln. I *mf*

II *mf*

vla. *mf*

vlc. *mf*

db. *mf*

151 a tempo poco rit..... poco rit....

fi.  
ob.  
cl.  
bsn.

hcn.  
bapt.  
trbn.  
tuba

timp.  
I vib.  
II vib.  
crot.

pno.  
Ped. Ped. Ped. Ped. Ped.

I vln.  
II vln.  
vla.  
vlc.  
db.

$\text{♩} = c. 75$

rit.....  $\text{♩} = c. 60$

fl.

ob.

cl.

bsn.

hcn.

tmpt.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pno.

I vln.

II vln.

vla.

vlc.

d.b.

151 a tempo

poco rit.....

poco rit....

fl. ob. cl. bsn. horn. tmpt. trbn. tuba

timp. I vib. II crot. pno. I vln. II vla. vlc. db.

152  $\text{♩} = c. 75$

rit.....  $\text{♩} = c. 60$

fl. ob. cl. bsn. horn. tmpt. trbn. tuba

timp. I vib. II crot. pno. I vln. II vla. vlc. db.

This musical score page includes the following parts and markings:

- Woodwinds:** fl., ob., cl., bsn., hrn., bappt., trba., tuba.
- Percussion:** timp.
- Strings:** I vib., II vib., crot., pno., I vln., II vln., vla., vlc., d.b.

Key markings and features include:

- mp** (mezzo-piano) dynamic marking in the timpani part.
- cresc.** (crescendo) marking with a dotted line in the piano part.
- mf** (mezzo-forte) dynamic marking in the piano part.
- mf** (mezzo-forte) dynamic marking in the violin II part.
- mf** (mezzo-forte) dynamic marking in the viola part.
- mf** (mezzo-forte) dynamic marking in the cello part.
- mf** (mezzo-forte) dynamic marking in the double bass part.

♩ = c. 55

160

fl. *solo*  
p

ob.

cl.

bsn.

hrn.

tmpt.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pno.

(cresc.).....fff

I vln.

II vln.

vla.

vcl.

d.b.

156

fl. ob. cl. bsn. horn. tmpt. trbn. tuba

timp. I vib. II crot. pno. (cresc.).....fff

I vln. II vla. vlc. d.b.

$\text{♩} = c.55$

160

fl. ob. cl. bsn. horn. tmpt. trbn. tuba

timp. I vib. II crot. pno. (cresc.).....fff

I vln. II vla. vlc. d.b.

ord. pp

ord. mp

fi. *a2*

ob. *p*

cl. *solo* *p*

bsn. *a2* *p* *solo*

hrn.

tupt. *p*

trbn.

tuba *p*

timp.

vib. I

vib. II

crot.

pno.

vln. I

vln. II

vla.

vlc. *pp*

d.b. *pp*

fl. *solo* *mp*

ob. *p* *mp* *mp*

cl. *mp* *mp*

bsn. *mp*

hrn. *solo* *mp*

tmpt.

trbn.

tuba *pp*

timp.

I vib.

II vib.

crot.

pno.

I vln. *p*

II vln. *p*

vla. *solo pizz.* *mf* *tutti pizz.* *mf*

vlc. *p*

db.

fl. <sup>a2</sup>

ob. <sup>a2</sup>

cl. <sup>a2</sup>

bsn. <sup>a2</sup>

hcn.

trpt.

trbn.

tuba

timp.

I vib.

II

crdt.

pno.

I vln.

II

vla.

vcl.

db.

fl.

ob.

cl.

bsn.

hcn.

trpt.

trbn.

tuba

timp.

I vib.

II

crdt.

pno.

I vln.

II

vla.

vcl.

db.

fi.

ob.

cl.

bsn.

hrn.

tmpt.

trbn.

tuba

timp

I vib.

II vib.

crot.

pno.

I vln.

II vln.

vla.

vcl.

d.b.

pesante

solo

solo arco

f

mf

mf

176  
vln. II  
vln. I

180  
vln. II  
vln. I

184  
pno.  
vln. II  
vln. I

vln. II  
vln. I

188  
pno.  
cresc. ....

*♩ = c. 60*

172

fl.

ob.

cl.

bsn.

hcn.

timp.

trbn.

tuba

timp.

I

vib.

II

crot.

pno.

I

vl.

II

vl.

vl.

db.

176

180

184

188

190

pno. *(cresc.)*.....*f*

192

bsn. *mf* *pizz.* *f*

pno. *ff*

vlc. *mf* *pizz.*

db. *mf*

194

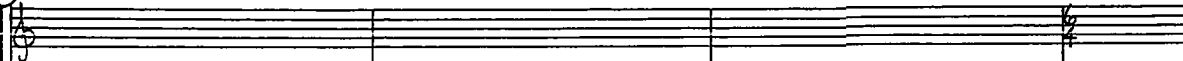
bsn. *f*

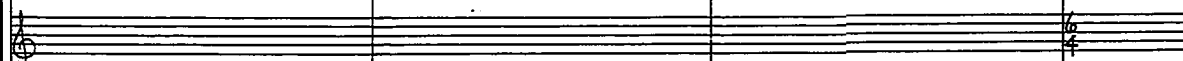
hmn. *f*

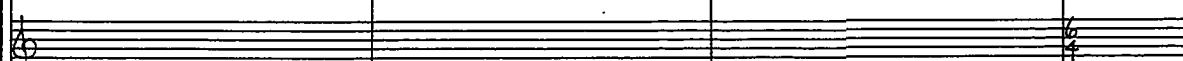
pno. *f*

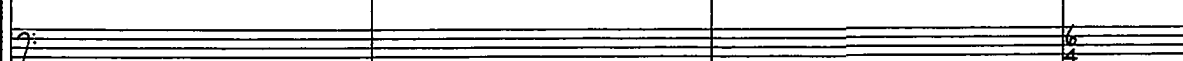
vlc. *f*

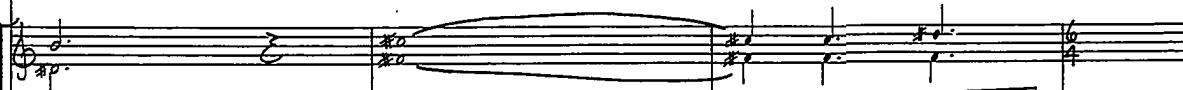
db. *f*


fl.  6/4

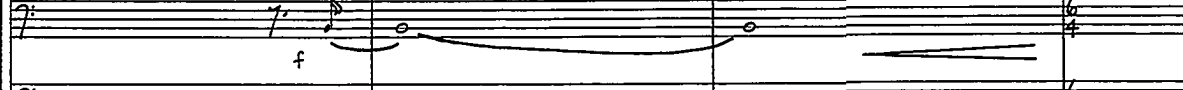
ob.  6/4

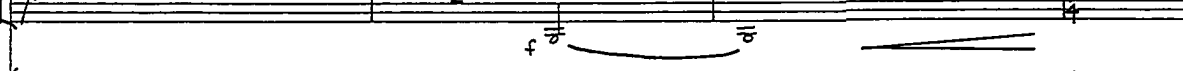
cl.  6/4

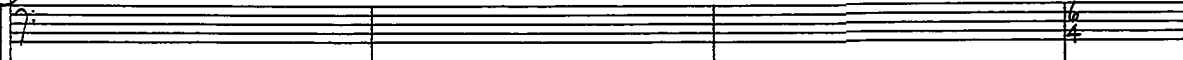
bsn.  6/4

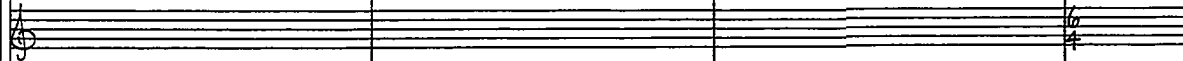
hcn.  6/4

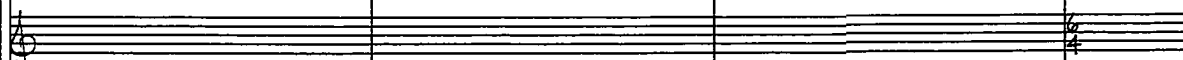
tmpt.  6/4

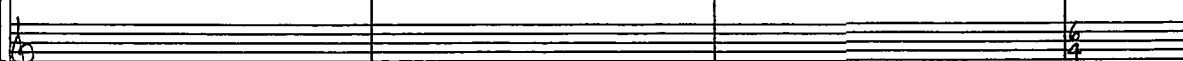
trbn.  6/4

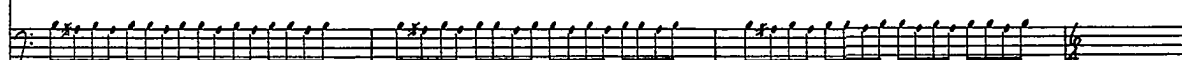
tuba  6/4

timp.  6/4

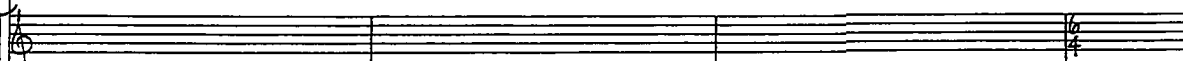
I }  6/4

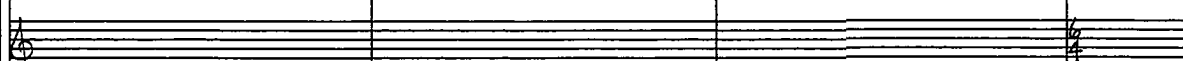
vb. }  6/4

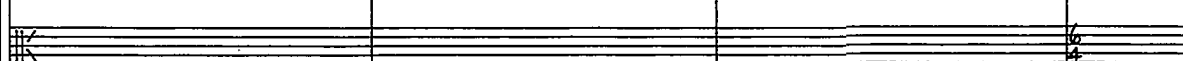
II }  6/4

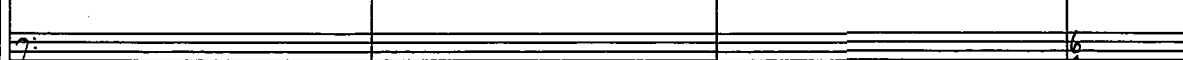
crot.  6/4

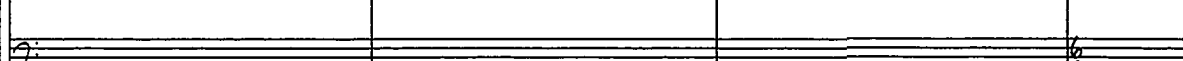
pno.  6/4


I }  6/4

vn. }  6/4

II }  6/4

via.  6/4

vle.  6/4

d.b.  6/4

190

pno. *(cresc.)* ..... 3 ..... *f*

192

bsn. *mf*

pno. *ff*

vlc. *pizz.* *mf*

d.b. *pizz.* *mf*

194

bsn.

hrn. *f*

pno.

vlc.

d.b.

196

fl.

ob.

cl.

bsn.

hrn.

trpt.

trbn.

tuba

timp.

I vib.

II vib.

crot.

pno.

I vln.

II vln.

vla.

vlc.

d.b.

no pulse - very slowly, freely, ethereal

fl.

ob. *ff* solo

cl. *ff*

bsn.

hrn. *ff*

tmpt. *f*

trbn. *f*

tuba *f* *oll.*

timp.

I vib. *mp* bowed - let ring

II vib. *mp* bowed - let ring

crot. *mp*

prn.

I vln.

II vln.

vla.

vcl.

d.b.

Handwritten musical score for the first system, featuring three staves: *timp.*, *H* (with *vib.* bracketed), and *crot.* The *timp.* staff contains a series of notes with accents. The *H* staves contain notes with accents and a *vib.* marking. The *crot.* staff includes the instruction "bowed let ring" and a dynamic marking of *mp*. The system concludes with a double bar line.

Handwritten musical score for the second system, featuring three staves: *timp.*, *H* (with *vib.* bracketed), and *crot.* The *timp.* staff includes a *p* dynamic marking and a complex rhythmic figure. The *H* staves contain notes with accents and a *vib.* marking. The *crot.* staff contains notes with accents. The system concludes with a double bar line.

Handwritten musical score for the third system, featuring three staves: *timp.*, *H* (with *vib.* bracketed), and *crot.* The *timp.* staff includes a complex rhythmic figure. The *H* staves contain notes with accents and a *vib.* marking. The *crot.* staff contains notes with accents. The system concludes with a double bar line.

no pulse - very slowly, freely, ethereal

fi.    ob.    cl.    bsn.    horn.    tmpt.    tbn.    tuba    timp.    I    vib.    II    crot.    pno.    I    vln.    II    vla.    vlc.    db.

timp.    I    vib.    II    crot.    timp.    I    vib.    II    crot.    timp.    I    vib.    II    crot.

Handwritten musical score for the first system. It features four staves: a top staff for timpani (timp.) and three staves for vibraphone (vib.) parts I, II, and crotchet (crot.). The music is written in 7/8 time. The vib. I part has a melodic line with an accent on the first note. The vib. II part has a similar line. The crot. part has a rhythmic pattern of eighth notes with accents.

Handwritten musical score for the second system. It features four staves: a top staff for timpani (timp.) and three staves for vibraphone (vib.) parts I, II, and crotchet (crot.). The music is written in 7/8 time. The vib. I part has a melodic line with an accent on the first note. The vib. II part has a similar line. The crot. part has a rhythmic pattern of eighth notes with accents. A dynamic marking of *mp* is present in the vib. I part.

Handwritten musical score for the third system. It features four staves: a top staff for timpani (timp.) and three staves for vibraphone (vib.) parts I, II, and crotchet (crot.). The music is written in 7/8 time. The vib. I part has a melodic line with an accent on the first note. The vib. II part has a similar line. The crot. part has a rhythmic pattern of eighth notes with accents. A dynamic marking of *mp* is present in the vib. I part.

Handwritten musical score for the first system. It consists of four staves: a top blank staff, a snare drum staff labeled "timp.", and two vibraphone staves labeled "I" and "II". The snare drum staff contains a series of quarter notes with asterisks above them. The vibraphone staves contain notes with asterisks above them, some with slurs. The system ends with a double bar line.

Handwritten musical score for the second system. It consists of four staves: a top blank staff, a snare drum staff labeled "timp.", and two vibraphone staves labeled "I" and "II". The snare drum staff contains a series of quarter notes with asterisks above them. The vibraphone staves contain notes with asterisks above them, some with slurs. The system ends with a double bar line.

Handwritten musical score for the third system. It consists of four staves: a top blank staff, a snare drum staff labeled "timp.", and two vibraphone staves labeled "I" and "II". The snare drum staff contains a series of quarter notes with asterisks above them. The vibraphone staves contain notes with asterisks above them, some with slurs. The system ends with a double bar line.

