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# Once <br> Was WOOD <br> (2002) <br> Concertino for Flute <br> \& Chamber Orchestra 

by Anthony Mosakowski

# Once Was Wood 

approximate duration: 10 minutes

## Instrumentation

Flute Solo
Flute 1/PiccoloFlute 2/Alto Flute
Percussion (1 player):GlockenspielTubular Chimes (pitches used: $\overline{\overline{\bar{\sigma} \bar{\sigma}}}$ )Xylophone
Temple Blocks (5)
Harp
Violin 1
Violin 2
ViolaVioloncello 1
Violoncello 2
Bass

Performance Notes: The Alto Flute sounds as written. Harp harmonics sound one octave higher than written. Bass harmonics sound one octave lower than written. All other harmonics sound as written. The Xylophone sounds one octave higher than written, and the Glockenspiel sounds two octaves higher. Words in square brackets in the percussion part indicate the type of stick or mallet to be used.
















$\geqslant$
quasi caderiac
 $\geqslant 60$
Solo
FI



25 conspirito












140


145







170






185


190









# COMMENTARY 

on the

# Portfolio of Compositions submitted for the degree of Ph.D. in Composition 

by

# Anthony F. Mosakowski 

under the supervision of

Dr. Fabrice Fitch<br>Department of Music<br>University of Durham

February 2002


# ABSTRACT <br> Portfolio of Compositions submitted for the degree of Ph.D. in Composition <br> Anthony Mosakowski <br> University of Durham 

Wear (1996) an electro-acoustic composition employing sounds of water recorded in Durham; Duration: 18 minutes

Slender Rose (1997) for Javanese Gamelan, slendro tuning, 10 players; cipher notation and transcription; Duration: 8 minutes
calling at (1998) an electro-acoustic composition employing sounds recorded in Newcastle-uponTyne Central Railway Station; Duration: 13 minutes

Colloqvivm (2000) 8 movements; Instrumentation: Flute, Oboe, Bass Clarinet, Vibraphone, Violin, Viola, and Violoncello; Duration: 16 minutes and 30 seconds

The Seafarer (2000) a setting of the Old English poem The Seafarer for Soprano Solo, Chorus, \& Orchestra; Instrumentation: 4 Flutes (3rd \& 4th doubling Piccolo), Percussion, Harp, Piano, Soprano Solo, SATB Chorus, and Strings; Duration: 16 minutes

String Quartet (2001) 3 movements based on two string quartet movements by Haydn; Duration: 12 minutes and 50 seconds

Once Was Wood (2002) Concertino for Flute \& Chamber Orchestra; Instrumentation: Flute Solo, Flute 1/Piccolo, Flute 2/Alto Flute, Percussion, Harp, and Strings; Duration: 10 minutes and 30 seconds

Commentary on the above compositions

The compositions contained in this portfolio share several issues and techniques in common, the most notable being experimentation with systematic procedures for the extension of musical material. These systematic procedures range from strict generative processes allied with serialism to mechanically derived formal frameworks which allow more freedom. Other concerns include the marrying of diatonic collections to the complete chromatic set. In the electro-acoustic works, "concrete" sounds are processed, mixed, sequenced, and transformed so that they may be heard in a new context organized to heighten their musical potential.

# COMMENTARY 

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## Acknowledgements

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for Ashwina

## Section 1

## Introduction

Before beginning to comment on the contents of this portfolio, it may be useful to summarize the styles and concerns of my pre-Durham work. This may be most efficiently done by briefly surveying the works included in my Master's degree portfolio. These were a piano sonata, a short movement for piano trio, a song cycle for soprano and piano, a set of four Latin text-settings for SSAA choir, and a tape piece employing synthesizer-generated sounds controlled by MIDI sequencing software. Of these works, the most successful are probably the text settings. The choral set Four Marian Antiphons features the use of four different, purely diatonic collections, one in each movement. The song cycle also makes use of much diatonic material, but begins by dividing the full chromatic set into three parts: the C major triad, the "black key" pentatonic set, and the B half-diminished seventh chord. Procedurally both of these pieces make use of canon, sequence, and inversionally symmetric mirrors to extend musical material. They are short, compact pieces which strive to render their texts sensitively, clearly, and naturalistically with regard to speech rhythm and syllable emphasis. These compositions concisely exemplify most of the major compositional concerns and techniques with which I began my studies at Durham and which I have continued to explore during the creation of this portfolio.

The first issue is the use of pure diatonic materials. The term diatonic here is meant to refer to the "white key" modes and their transpositions which are primarily used in such a way as to deliberately avoid any suggestion of common-practice tonality or harmonic progression. The potential of the pitch collection is explored with special emphasis placed on the inherent dissonances of the set. These dissonances may be measured both individually within each sonority and in relation to a static tonal centre. The emphasis is on the moment-to-moment changes in sonority, especially as they relate to the meaning and imagery of the texts involved. Unfortunately, the limited range of pitch materials tends to make pieces of this type very brief, and it also goes against the twentieth-century tendency to utilize the complete chromatic set in a composition. While this tendency need not be taken for granted, it somehow remains a kind of unspoken assumption that composers must deal with whether that means acceptance or refusal. As these diatonic compositions show, I have never taken the use of the complete chromatic set as a given, but I have felt the presence of a sort of "atonal common practice" in which chromatic saturation seems to be an axiom. However, this is not to imply that I have rejected the chromatic either. There are many sonorities that I find appealing which demand a chromatic context. The challenge is to somehow blend the diatonic and chromatic together in a balanced and musical way. As an undergraduate I was given a composition assignment which was to somehow address the dichotomy of diatonic/chromatic. The song cycle mentioned above shows one attempt to continue to solve that problem. Most of the pieces in this portfolio also represent
further solutions. The motivation for this is twofold: to find ways to extend diatonic materials while continuing to avoid common-practice tonality and to reconcile my own personal diatonic predilections with that "call of the chromatic" mentioned above.

Clearly, I am not the first composer to grapple with this diatonic/chromatic conflict. As best exemplified in the Violin Concerto, Berg's special use of serial techniques shows a desire to keep alive elements of diatonicism (and common-practice tonality) through the incorporation of triadic structures in a system originally intended for music which is chromatic in the purest sense. In the more recent climate of Post-Modernism, composers like George Rochberg have even gone so far as to write music in a deliberately "archaic" tonal idiom, partly in reaction to the assumption of chromatic saturation mentioned above. Rochberg in particular has shed interesting light on the diatonic/chromatic issue especially as it relates to another element found in my work, the use of symmetry. In a talk entitled Polarity in Music: Symmetry and Asymmetry and their Consequences* he sets forth the idea that the tensions between diatonic and chromatic, polyphonic and harmonic, tonal and atonal throughout the entire history of Western music are specific manifestations of a "dance of polar opposites". These poles are symmetry, musically exemplified by the chromatic scale (a uniform series of semitones) and imitative polyphony (music generated by self-referential patterns) and asymmetry, the diatonic scale (an uneven pattern of tones and semitones) and music which features a primary melody with chordal support. He also asserts that now, more than ever, composers are trying to find a balance between these two poles.

The initial reaction in Durham to my earlier compositions indicated that the next best step would be to attempt a more systematic approach to composing, not in opposition to what was perceived to be the rather instinctive handling of materials in the above-mentioned pieces, but to enrich and mediate it. The first three pieces presented here show a variety of systematic approaches: from very strict, mechanical procedures used to generate almost every detail of a piece (Slender Rose \& Colloqvivm VII $\Omega$ ) to more loosely applied systems and rules which govern only certain levels of musical structure, leaving others more free (The Seafarer). All the while these systems continue to expand on the pre-existing issue of diatonic/chromatic and often include aspects of canon, sequence, and symmetry.

An issue which arose later as a result of these attempts at greater systematization is the idea of idiomatic writing. One pitfall of the strict and equal application of systematic processes to all of the instrumental parts of a composition (particularly when compounded by the use of canon) is that the instrumental writing may be too uniform. This approach may in fact generate musical lines that do lie very well on all of the instruments, but the likelihood of it producing lines which are especially well suited for such different instruments as bass clarinet and vibraphone is more remote. The chamber piece Colloqvivm represents the main attempt at dealing with this issue by trying to find a balance between systematic process and idiomatic writing.

The pair of electroacoustic pieces (Wear \& calling at) stand somewhat apart from the first three pieces. While they do employ systematic procedures, they are not nearly as preoccupied with them. Rather than relying on mechanical processes to extend musical material, they offer a different perspective on the form-generating aspects of systematic procedures. These pieces also represent the greatest departure from my previous compositions. They do not contribute in any important way to the diatonic/chromatic debate, and the only technique carried over from my earlier work in the electronic medium is the use of monophonic MIDI sequences to create relatively thick textures. In all other respects, these pieces are original essays inspired by the digital recording and sound processing tech-
*read 20 April 1995, published in Proceedings of the American Philosophical Society, Vol. 141, No. 2, June 1997
niques to which I was introduced for the first time at Durham. Perhaps because of working with these new techniques and in a different medium, these pieces are more freely constructed than the earlier pieces and use systems and processes in a less literal way.

The last two compositions discussed here (String Quartet \& Once Was Wood) were also the last to be composed. They continue the loosening of the restrictions of systematic processes begun in The Seafarer, and attempt to connect the diatonic/chromatic dichotomy of my earlier work to the freer use of mechanical procedures found in the electroacoustic pieces. They therefore, represent the truest synthesis of my compositional concerns to date.

## Section 2

## Slender Rose

The University of Durham is fortunate enough to be in possession of a gamelan, the traditional orchestra of Indonesia. I am also fortunate in that while at Durham I was an active member of Durham Gamelan, the student/community group which meets regularly to play the instruments. Slender Rose was commissioned by the group and subsequently performed in concert. It is perhaps of all the pieces contained in this portfolio, the best example of Gebrauchsmusik. It is also an example of one of my initial attempts at developing a systematic approach to composing (a few other earlier attempts are not included in this portfolio). Slender Rose uses very simple mechanical processes applied recursively to a limited set of materials, but in such a way that the end result is a complex interaction of numerous layers of sound, each working themselves out according to specific sets of rules.

The Durham gamelan is specifically of the Javanese type, and it is not a complete set of instruments. Ordinarily, a gamelan would consist of two separate sets of instruments, one set for each of the two tuning systems used in Javanese music. The pelog system is based on a seven-note scale rather different from the Western diatonic scale, and the slendro system is based on a five-note scale very close to the "black-key" pentatonic scale. The Durham gamelan has only the slendro set of instruments which are of several types including bronze-bar metallophones (peking, saron barung, saron demung, and slenthem); large hanging gongs (kempul, gong suwukan, and gong ageng); sets of horizontally mounted, smaller "pot" gongs (bonang panerus, bonang barung, kenong, and kethuk \& kempyang); and a set of two double-sided, barrel-shaped drums (kendang kalih). All of the instruments are struck with hammer-like beaters or with yarn- or cloth-covered mallets with the exception of the drums which are played with the hands. Again with the exception of the drums (and also of the kethuk which is struck so that it produces a short, dry sound), the instruments have a rather long decay time so that one of the most complicated playing techniques involves damping a bar or gong with one hand while simultaneously striking the next note with the beater in the other hand in order to prevent the notes from overlapping. One of the requests included in the commission was that the composition not exceed the current level of expertise achieved by the performers, who ranged in experience from veterans of several years' standing to absolute beginners. Also, since the membership included both musicians and non-musicians it was requested that the score and parts be notated in the numeric cipher notation usually employed for gamelan music.

The cipher notation system is fairly straightforward. Each of the five notes of the scale is assigned a number: $1,2,3,5,6$. (The pelog tuning system has notes numbered 1 through 7 ; therefore 4 is skipped in the slendro scale to avoid confusion.) These notes (at least on the Durham gamelan) are roughly equivalent to the pitches C D E G A. Dots are placed over or under numbers to distinguish
between high and low notes of the same pitch class. Javanese music is typically based on a very regular, four-beat cycle known as a gatrå which corresponds closely to a bar of common time, the main difference being that the strongest metrical position is at the end of the gatrå as opposed to the downbeat of the bar. In the cipher system, rhythm is indicated by the position of the number (indicating the pitch to be played) in the gatrå. Rests are indicated with dots ( $\cdot$ ), and notes are understood to ring until the next note is struck; so for most of the instruments a legato line is the norm. Further refinements of rhythm are effected with horizontal lines placed over the numbers and dots. A line over two numbers (or a number and an adjacent dot) indicates that they are to be played in the time of one "beat", i.e. twice as fast as usual. Two lines indicate that they are to be played four times as fast, etc. The notation for the drums is slightly different in that it does not use numbers to represent the various sounds produced. And as the drums usually play a very steady pattern which subdivides every beat, the dot indicates one of the standard sounds rather than a rest.

Limitations on space do not permit the inclusion of more information regarding the instruments, their techniques, or cipher notation, but a few words must be said about the basic structure of Javanese music. Although it may be an inappropriate use of the term in an ethnomusicological sense, gamelan music is very canonic in the Medieval sense. All of the performers (again with the exception of the drummer who plays a fixed pattern) read from identical copies of a score (usually on one or two sheets of paper) which shows all the information needed by all the players to derive their individual parts according to certain rules specific to each instrument. A string of notes known as the balungan functions as a sort of cantus firmus. A few instruments such as the sarons and slenthem play the balungan exactly as written, while other instruments may play each note twice at twice the speed or repeat pairs of notes at twice the speed. The result is an emergent polyphony which grows out of the monophonic balungan. In addition to following the restrictions already stated above, Slender Rose also retains this "canonic" aspect of traditional Javanese music but applies it in a more extreme way.

The pitch material of the composition is derived from a very small initial cell (125) which is extended through transposition to generate the series 125351613236562 . This series is rotated by reversing the order of each pair of notes beginning with the second and placing the first note at the end of the resulting row. (This particular permutation is partly related to the way in which the bonangs and the peking derive their parts from the balungan in certain Javanese musical forms.) This process is applied recursively to produce a series of eight fifteen-note rows (Figure 2.1) which are used sequentially throughout the piece as a kind of meta-balungan.

Figure 2.1: Slender Rose Pitch Material

| 1 | 2 | 5 | 3 | 5 | 1 | 6 | 1 | 3 | 2 | 3 | 6 | 5 | 6 | 2 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 5 | 2 | 5 | 3 | 6 | 1 | 3 | 1 | 3 | 2 | 5 | 6 | 2 | 6 | 1 |  |  |  |  |  |  |
|  |  | 5 | 2 | 6 | 3 | 3 | 1 | 3 | 1 | 5 | 2 | 2 | 6 | 1 | 6 | 5 |  |  |  |  |  |
|  |  |  | 6 | 2 | 3 | 3 | 3 | 1 | 5 | 1 | 2 | 2 | 1 | 6 | 5 | 6 | 5 |  |  |  |  |
|  |  |  |  | 3 | 2 | 3 | 3 | 5 | 1 | 2 | 1 | 1 | 2 | 5 | 6 | 5 | 6 | 6 |  |  |  |
|  |  |  |  |  | 3 | 2 | 5 | 3 | 2 | 1 | 1 | 1 | 5 | 2 | 5 | 6 | 6 | 6 | 3 |  |  |
|  |  |  |  |  |  | 5 | 2 | 2 | 3 | 1 | 1 | 5 | 1 | 5 | 2 | 6 | 6 | 3 | 6 | 3 |  |
|  |  |  |  |  |  | 2 | 2 | 1 | 3 | 5 | 1 | 5 | 1 | 6 | 2 | 3 | 6 | 3 | 6 | 5 |  |

The rhythmic material is also based on a very small initial cell (ic) $111 \cdot 11 \cdot \cdot$ ) which is extended through augmentation by multiplying the original rhythm by $1,2,3,5$, and 6 (i.e. the same numbers used as code for the pitches of the slendro scale) (Figure 2.2). The initial rhythmic cell is a stock pattern played by the bonangs in traditional gamelan music. The initial ( 6 ) indicates that it begins immediately after the fourth ("gong") beat of the gatrå.

Figure 2.2: Slender Rose Primary Rhythm Material
1 (G) 111.11 ..
2 (G). 1•1•1••1•1....
3 (G). $1 \cdot 1 \cdot 1 \cdots \cdot \cdot 1 \cdots 1 \cdots \cdot$
5 (G)....1•••1••1••••••1••1


These rhythms are further extended by combining all of the five primary rows in pairs: $1+2,1+3,1+5$, etc. Figure 2.3 shows the process with rhythm rows 2 and 3 as an example.

Figure 2.3: Slender Rose Secondary Rhythm Material

```
2 (G). 1.1.1...1.1....1.1.1...1.1....1.1.1...1.1....
```



```
2+3 (G). 111.1..11.1..1..1.1.1...1.1.1..11.1.11..1.1...
```

All of these rhythmic materials are combined with the series of pitch rows to generate everything in the piece.

Various processes are set up to allow each instrumental part to cycle through the entire series of pitch and rhythm rows at least once. Most of the instruments function as parts of groups while the rest are independent. Two duets are formed by the pair of bonangs and the combination of kenong and gongs. The saron group (which includes the peking) and the slenthem functions as a quartet. The drums and the kethuk \& kempyang are set apart primarily because they are not able to cycle through the pitches of the "balungan" in the same way as the other instruments. The solution for the drums is that the five standard sounds of the kendang kalih are equated with the five notes of the scale. In the case of the kethuk \& kempyang, the kempyang (which has a pitch of i) plays for the odd-numbered notes in the pitch series while the kethuk (which has a pitch of 2 ) plays for the even-numbered notes.

Due to the very traditional performance techniques maintained in this piece, the music sounds very much like traditional Javanese music in a superficial way. The main differences are structural. Whereas in the traditional music all players read from one score showing the balungan with a few additional indications particular to their instruments, the disparity of the "canonic rules" applied to the balungan for the various instruments in Slender Rose demands a full score with each part written out on its own line. Whereas traditional Javanese music depends largely on repetitions of several cycles of music, with sections of a piece demarcated by drastic changes in tempo, Slender Rose is through-composed with very little repetition. The greater-than-usual independence of the instrumental parts and the lack
of repeated patterns was a considerable challenge for the performers and may represent the greatest departure from gamelan tradition.

The strictly applied processes which generate this score serve several important ends. The limitation of using only five pitches presents a challenge that ironically must be very similar to the one faced by the first composers to systematically use the complete chromatic set, specifically in relation to the avoidance of repetition of pitches (and therefore the suggestion of a tonic) and the overall equality of all the pitches of the set.* In both cases, serial procedures provide a way of extending the initial material in a highly organized way. Also, this is not a piece which is about pitch in any meaningful sense. Therefore, the series of pitch rows maintains an overall balance between the pitches, creating a sort of pentatonic "haze" over the piece as a whole. There is no real sense of harmonic motion being attempted or simulated, and forward momentum depends largely on the almost constant quaver pulse. The level of interest in this music lies more in the textural changes created by the overlap and interplay of the various patterns and cycles played out by the different groups of instruments as they progress through the pitch and rhythm rows. (For example, at the beginning of the piece the sarons form two pairs of instruments each playing through the pitch meta-row using a different combination of rhythm rows. The saron barung/demung pair end their quaver-based cycle of rhythms in m .30 . The peking/slenthem pair whose rhythm cycle is based on a crotchet pulse extends beyond this point. The first pair finish out their statement of the pitch meta-row with long notes (whose durations are also derived from the rows) as if waiting for the other pair to finish. The second pair also finishes out the pitch row with long notes until both pairs coincide to begin a completely new texture in m. 49 in which the pitch row is distributed among all four instruments.) Still, on the local level there are harmonic events which cannot be entirely discounted. Whereas in my strictly diatonic pieces I have been content to seek out the best harmonic potential of the collection, with only five notes it seemed more sensible to let the various mechanisms detailed above do most of the work. The results on the local level would have been about the same. Once the mechanisms are defined, the main work of the composer is deciding which one to use and where to use it in order to shape the piece in a sensible way. This relationship of composer to material is at the other extreme from the one I had before coming to Durham, and Slender Rose ${ }^{\dagger}$-as process-driven as it is-is not my last exploration of this issue.

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## Section 3

## COLLOQVIVM

Colloqvivm, like Slender Rose, began as a work composed for a specific occasion: a composers' workshop hosted by members of Northern Sinfonia in Newcastle-upon-Tyne. This piece represents a further attempt at systematization of the compositional process while at the same time beginning to address the issue of idiomatic instrumental writing. It is also an example of my continuing investigation into the diatonic/chromatic issue. Here, serial techniques are used again, but only with respect to pitch.

The initial pitch material is derived from the names of the instruments in a way inspired by Ravel's Menuet sur le nom d'Haydn of 1909. VIIA is the original workshop movement (the others being added later), and it fulfils an introductory function for the set as a whole. At first each instrument's "motto" is treated freely, more as a general pitch-class contour than as a fixed series. However, by the end of the movement each instrument, through the insistent repetition of an ostinato figure, firmly states the final form of its motto which is used as an idée fixe for the rest of the movements. Figure 3.1 shows the initial pitch-class contours for each instrument name on the left and the final forms attained by the end of the movement on the right. Throughout the remaining movements, these final forms are used as pitch rows extended by a variety of transformations, including the original and transposed Prime, Retrograde, Inversion, and Retrograde Inversion forms. The Inversion forms used most frequently are those that fit within the pitch compass of the Prime forms as shown in Figure 3.2.
The primary motivation to compose additional movements based on this material stems from the potential hinted at in the first movement for a more idiomatic style of instrumental writing. This is perhaps more true of the first part of the movement where the texture is more free as the mottos are being explored than in the last part where they become fixed. However, these two modes of operation-improvisatory exploration vs. machine-like process-form the poles between which the set as a whole moves. Aside from the two outer movements which use the full ensemble, each movement has a different instrumentation. The distribution of the instruments themselves among the movements deliberately maintains a certain balance. If taken in sequential order as they are in the score, there is an additive, alternating pattern to the distribution which ensures that each movement (with the exception of I) has a mixed ensemble of winds and strings. However, this sequential ordering of the movements is purposely prevented by the rules set up to determine the order of the movements in performance. While preventing a sequential ordering, these rules still preserve one aspect of the original pattern of distribution: the non-uniformity of instrumentation between successive movements. The result is a shuffling of the original distribution so that on the small scale the relationships from movement to movement are variable, while on the large scale balance is maintained. The reason VI is stipulated to be the penultimate movement is a part of maintaining this balance, since, as will be seen below, VI and

Figure 3.1: Colloqvivm Initial Pitch Material

$\mathrm{VII} \Omega$ are the polar opposites of the set. Another reason for this built-in variability in movement order has to do with the title and extra-musical theme of the piece. By inviting the performers to shape the overall form of the music, they are given the opportunity to take part in the "conversation" in a more proactive way than that allowed by their usual roles as mere interpreters.

Since each instrument carries with it its peculiar series of pitches, each movement presents a different pitch collection which is treated in a characteristic way, some movements being more strict and/or literal than others in their presentation of the pitch material. Once again, canonic techniques are used frequently, and much of the music has a machine-like quality which is a result of setting up processes based on very simple patterns. In each case however, the approach adopted is an attempt to explore the potential of the pitch collection at hand. Movements VI and VII $\Omega$ offer two very different approaches for comparison.

VI is based on a long pitch row which is the result of combining the rows of all the instruments

Figure 3.2: ColloQvivm Extended Pitch Material

used in the movement in a nearly palindromic arrangement. The pitches of this series are distributed among the instruments as long, sustained notes. The duration of these long notes is proportional to the frequency of recurrence of the pitch in the series. For example, FH which appears seven times is held the longest (eight beats) before the attack of the next note in the series, E , which appears six times and is held for six beats. Furthermore, each long note is held-overlapping with the succeeding long note-for an additional length of time equal to half the duration of this succeeding note. This forms the skeleton structure of the composition-a device to be found again later in The Seafarer-, but the rest of the notes are chosen freely from the series and are not bound by the original order. The only other predetermined detail is that each of the freely composed statements must somehow lead into the following long note. Again there are sequential and mechanistic details on the local level, but on the whole the instrumental gestures are more heuristic (and therefore idiomatic) than in other movements.
$\mathrm{VII} \Omega$ however is much more rigidly and tightly structured. It is in fact a veritable jigsaw puzzle. Each instrument plays through a long pitch series which is the result of extension of the original motto through a process of intervallic expansion-also to be found later in The Seafarer. These rows are divided into diatonic segments, each instrumental part progressing through its series one segment at a time, with concurrent statements in other instruments linked by the circle of fifths. The first bar of the movement shows this relationship: the diatonic collections (i.e. major scales) connected to the
statements of the vibraphone, violin, viola, and cello are $A, E, A / E$, and $B$ respectively, all adjacent on the circle of fifths. (The two notes in the oboe also fall within this range of scales.) In addition to predetermining the order of pitches for each instrument, the process of intervallic expansion also results in a fixed registral placement for these pitches which is retained note-for-note in the music. Here, the primary focus of compositional decision-making is to rhythmically accommodate each of the row segments - some of which involve very large leaps due to the fixed registers of the pitches so that it is playable, and also to assemble all of these row segments into a coherent whole.

In the case of VI, the individual gestures of each instrument are freely composed, restricted only by the skeleton of the long pitch series which provides only an underlying framework and does not dictate very much on the local level. With VII $\Omega$, the pitch series and the processes related to them generate the whole piece in a way similar to Slender Rose. The difference is that whereas in Slender Rose the mechanical devices are used to move within a pitch collection wherein the tension between consonance and dissonance is negligible, here they are used to bind disparate elements, some of which on their own are quite awkward.

Another way in which mechanical processes are controlled and counterbalanced is the reaction to "accidents" thrown out by the processes. An accident here is some detail which stands out from the rest of the music generated by following a process strictly. These accidents need not mean that the process which generated them must be abandoned or applied in a different way in order to create a more uniform result. Rather, they present an additional opportunity for the composer to interact with the material, or at the very least they invite the composer to comment on their presence.

In Collopvivm II for example, the bass clarinet and cello cycle through each other's pitch collections extended by a series of transpositions based on their own collections. The result is that several unisons occur between the two instruments. These unisons may simply be seen as one of the possible pitch events of the piece alongside dyads, single notes, and rests. However, fleeting as they are, it may not be possible for a listener to hear these unisons on a par with these other events due to the peculiar history of the treatment of the unison in counterpoint. The solution here is to highlight the occurrences of these unisons by multiplying their durations by $1,2,3$, or 4 , the same numbers used to generate the rhythm of the piece. Additionally these unisons are distinguished by a quick dynamic/timbral cross-fade between the instruments. A similar effect is applied to several consecutive, hocket-like unisons which occur. These additional interactions with the material effect a mediation of the output of the strictly applied process. Also, as in the case here where the augmentation used to highlight the unisons is itself systematically related to the original process, these interactions mean that the process/material/composer relationship is not completely relegated to the area of precomposition but operates on varying levels throughout the piece.

One additional particular opportunity/pitfall of this type of process music is that one shape or contour can be replicated on many different levels, in a manner similar to a computer-generated fractal design. However, although the theory behind this technique is inspired by certain properties found in nature, the imitation of this type of formal symmetry may inadvertently lead to rigid, sterile results, regardless of how many accidents are built into the design. The realization of this potential problem led me to explore various alternatives in the later pieces contained in this portfolio.

## Section 4

## The Seafarer

The Seafarer is an Old English poem contained in the collection known as the Exeter Book. (The specific edition of the text used in my setting is based on several standard, published editions with further emendations made through consultation and personal correspondence with John Vickrey, an Anglo-Saxonist who has published many articles on the poem.) The text of the poem presents several challenges not usually faced when setting words to music. First of all there is the language itself. Old English (sometimes also called Anglo-Saxon) has not been spoken as a living language for nearly a millennium. There is a fairly large amount of well-preserved Old English literature, most of which probably had an oral-formulaic genesis, at least in part. Ironically the sound of the spoken language is all but lost to modern students, who must content themselves with reading poetry which was almost certainly intended only to be recited aloud. However, the sound of the language can be reconstructed approximately through the application of various phonological laws and theories and by comparing words with cognates in related modern Germanic languages. Regardless of the procedures used to recapture the sounds of any dead language, there will always be a certain amount of guesswork involved and a fairly large margin of error associated with the end result. Therefore information has been synthesized from a variety of sources to produce a practical singers' diction of Old English. The reason this is given such prominence in the score-the IPA (International Phonetic Alphabet) transcription appearing under the Old English text in each voice part - is that the sound of the language must be given very careful and special consideration in rehearsal and performance. The sound of the words are as important and interesting a feature of the music in performance as anything else. It is therefore necessary to be sure the words can be sung correctly without a great deal of difficulty before putting them to music. From the compositional perspective, however, the sound of the language is not quite as important as the rhythm.

Rhythm is perhaps the most important factor in creating a text-setting which sounds natural and meaningful, specifically with regard to word emphasis and syllable stress. (Of course, a naturalistic text-setting is not necessarily a foregone conclusion in any style of music, but when dealing with an unfamiliar language, an approach which attempts at first to represent a faithful if somewhat stylized version of natural speech patterns will enjoy the added historical interest that accompanies this type of project.) A stressed syllable or important word can most effectively be made to stand out by setting it on a metrically strong beat or through the use of syncopation. Pitch, melodic contour, articulation, and dynamics can either enhance or undermine the effect of rhythm, but rhythm remains the main determining factor. Again, Old English provides a challenge in this regard. Like Modern English, Old English depends on heavy emphasis (mainly through relative loudness) on certain syllables for
meaning and the flow of the language in general. Similarly Modern and Old English verse rely on patterns of stressed and unstressed syllables. One of the main distinguishing features of Old English verse, however, is the importance of alliteration. In each line of verse there will usually be three or four heavily stressed syllables at least two of which must alliterate. However, unlike Modern English, Old English also has a fixed system of syllabic quantity or duration. This is primarily important in determining which syllables may be stressed, but it may also have some bearing on the natural rhythm of the language as well. Modern English does have some degree of quantity, but it is fairly flexible. One may say a word slowly or quickly without changing its meaning. It is possible however that this flexibility did not exist in spoken Old English, that the quantity of syllables was fixed or perhaps flexible but only within a narrow range. While presenting a challenge, this possibility also presents an opportunity for experiment. Whereas in Modern English (for example) there may be many rhythmic interpretations of a line of verse all of which are equally natural in that they may represent variant readings of the text which may emphasize different things, Old English may be much more limited in this regard. The nature of the language and its poetic style may impose more restrictions on the range of interpretations while allowing the possibility of approaching what may be considered to be an ideal reading of the text.

In order to be able to begin to reproduce the natural rhythm of Old English poetry the following types of syllables must be taken into account: long/stressed, short/stressed, long/unstressed, and short/unstressed. By assigning each of these values a fixed duration or a narrow range of possible durations and combining this with the above-mentioned principal of highlighting stressed words or syllables through the use of metric accent or syncopation, a rhythmic "skeleton" of the entire text may be produced. This forms a blueprint from which to work, a necessity when there is no available tradition of text setting in this type of poetry. It need not be adhered to strictly, but it will at least show the norm against which any deviations may be gauged.

There is in fact very little deviation at all in the piece from the original rhythmic skeleton of the entire poem, i.e. the word-to-word and phrase-to-phrase relationships and proportions are as naturalistic as possible. This means that there is not a great deal of rhythmic variety in the vocal parts. Short rhythmic formulæ recur over and over again. But, rather than limiting the expression of the poem, this repetition serves to highlight the formulaic nature of the text. It mirrors the tight-knit structure of the verse in which other elements such as meaning and imagery are more free to move. And, from a musical perspective, the constantly shifting play of long and short, stressed and unstressed syllables, and the frequent changes in meter which this implies create a movement which at least on the local level is quite dynamic and fluid.

The rhythmic skeleton of the first five lines of the poem (Figure 4.1) shows most of these details and several of the recurring rhythmic formulæ. Throughout the piece, short/unstressed syllables are generally given the value of a quaver (or crotchet triplet or quadruplet); long/unstressed syllables are crotchets; long/stressed syllables are either minims or dotted crotchets; and short/stressed syllables range from quaver to crotchet quadruplet but are always placed on a downbeat. The resulting formulæ are relatively varied considering the small range of note values involved, and their juxtaposition creates a fair amount of rhythmic interest without being unduly taxing on the choir who may have their hands (or rather their mouths) full just coping with the language. The meter changes mentioned above are entirely dependent on the rhythm of the words. Whereas the pattern of long and short syllables is mirrored in the rhythm according to the scheme outlined above, the meter changes as necessary both to accommodate the varying length of phrases (which depends primarily on the number of unstressed syllables) and also to ensure that an unstressed syllable falls on a weak beat while a stressed syllable

Figure 4.1: Seafarer Rhythmic Skeleton: Lines̄ 1-5

falls on a downbeat or on a weak beat where syncopation can occur. That these changes in meter are subsidiary to the rhythm is further emphasized by the fact that they may or may not be heard depending on the way they are articulated in the music. In the opening section of the piece (through m. 32) for example, the only line which supports the metrical changes is the soprano, and conceivably this line might have been notated otherwise; some of the stressed syllables falling on downbeats could have been syncopated instead, or vice versa. The other lines-particularly the rising, four-note pattern in the flutes-are made to fit into the meter changes, but they do not support them. In this case, the changes in meter serve mainly to inform the vocal part, emphasizing the syllables to be accented, and may not be felt very strongly at all. In the section which immediately follows (mm. 33-70) the chord changes in the flutes and strings articulate the downbeats at the start of each phrase, making the changes in meter here slightly more apparent. In the first parts of Paragraphs VI and VII (mm. 274-295 and 333-354 respectively) however, the voices, strings, and percussion all work together to articulate the metrical changes very clearly. It is only the piano which is entirely independent. This shifting of meter from background to foreground is another element which adds variety to the fixed rhythmic movement defined by the text. The only other time element in the music is the change of tempo from one section to the next. By keeping the tempo constant within each section the quantitative proportions of the words are maintained on the local level. But by changing tempo from section to section, more variety of rhythmic movement is introduced as the various formulæ are heard at different speeds. The relationship of the adjacent tempi is for the most part by the same simple proportions shared by the note values connected to the various types of syllables. For example, the relationship of the change from $d=96$ in the first part of Paragraph I to $d=128$ in the second part is a ratio of 3:4, the same ratio as that for dotted crotchet to minim, the two values employed for long/stressed syllables.

Figure 4.2: Seafarer Expanded Phrygian Sets


All of the above discussion of rhythm and meter applies primarily to the vocal parts. The instrumental parts are not directly dependent on the predetermined skeleton but rather serve to either accentuate or undermine it. One primary role of the orchestra is to highlight the punctuation in the text. Where punctuation is signified in the vocal parts by a rest, the orchestra at times fills up the rest, alternating with the voice(s) in a hocket-like manner. In the second section of Paragraph I, already mentioned above, the strings and flutes play on the rests separating each of the soprano's phrases. All but two of these fall on a downbeat, so that in addition to emphasizing the short pauses between phrases, the downbeat is reinforced, thus clarifying the context of the initial notes of each successive vocal phrase, helping to make the distinction between an unstressed syllable (anacrusis) and a stressed syllable (syncopation). The first parts of Paragraphs VI and VII, also mentioned above, illustrate a more pronounced example of this reinforcement of meter and support of the metric accent articulated by the voices. Other rhythmic structures in the orchestra either fill in gaps between punctuating figures by dividing the intervening duration into equal (or roughly equal) parts, or set up layers of rhythmic movement based on simple cycles which may or may not coincide with the prevailing meter. An example of the division of the time between punctuations may be found in the piano in mm. 94-97 where a total duration of $13 \frac{1}{2}$ crotchets is divided into seven dotted crotchets and one minim. Here this almost-equal division happens to coincide with the metrical changes dictated by the rhythmic skeleton. However, as mentioned above, in the first parts of Paragraphs VI and VII the piano's seven-crotchet ostinato does nothing to underline the changes in meter and may serve instead to partly undermine it. There is therefore a varying tension between the voices and the orchestra, at times working together within the meter changes defined by the rhythmic skeleton and at times working on two different planes which may or may not share points of convergence.

Thus far, rhythm and meter have been discussed without regard to pitch. This is no accident since the two areas are really quite independent in the piece. Whereas rhythm and meter are rather uniform throughout the entire piece, changing only locally as dictated by the poetry, the pitch structure of the music is based on a separate plan only coincidentally aligned with the structure of the text. The pitch material is based on an intervallic expansion of the Phrygian-mode collection which begins the piece. Figure 4.2 shows all of the pitch collections in the order in which they appear in the piece. With the notes of the original collection ( $\mathrm{P}+0$ ) stacked vertically, one semitone is added to the intervals between adjacent pitches resulting in the first expansion ( $\mathrm{P}+1$ ), the third in the series. The expansion is roughly centred on the midpoint of the original set so that the outer notes of each successive expansion are roughly equidistant from the outer notes of the previous set with the restriction that the bass note must be a part of the original Phrygian collection. The expansion halts at $P+9$ since $P+10$ would yield the three-note set FF\# G. The same expansion principle applied to the inversion of the original Phrygian set (the E Ionian set) generates a further nine pitch collections making a total of twenty. In Figure 4.2 each collection is shown in two forms, the upper one showing the vertical arrangement of the collection and the lower one showing the collection collapsed into a scale starting on the bass note of the vertical arrangement. Rather than being arranged in sequential order ( $\mathrm{P}+0, \mathrm{P}+1, \mathrm{P}+2$, etc.) the sets succeed each other following an outward/inward contour which mirrors the wave imagery that pervades the first part of the poem. Once the climax of the expansion $(\mathrm{P}+9)$ is reached, the order reverses as the sets derived from the inversion of the original set collapse inward towards $I+0$, with the restriction here that the bass notes must belong to the Ionian set. Again here, the principle of symmetry is apparent on two levels: the roughly equal outward/inward expansion of the sets and the palindromic/mirror-image ordering of the entire series of pitch collections.

In addition to the wave-imagery aspect, this ordering of the pitch sets also coincides very well with the changes of mood and tone throughout the poem. The poem may be divided into ten paragraphs, and each paragraph into two parts usually signalled by a change in mood, tone, and/or meaning. The twenty pitch sets therefore correspond very neatly to the twenty sections of the text. The fact that this arrangement works on both the mechanical, sequential level of the ordering of the pitch sets and the more fluid, semantic level of the poem makes it a strong foundation for the large-scale structure of the piece. For example, the almost-complete diatonic set $\mathrm{P}+3$ is suggestive of the suddenly softer nature imagery of the first part of Paragraph IV, while the gloomier mood of the second part of the paragraph is supported by the more dissonant chromatic content of the succeeding $\mathrm{P}+8$ set. Each section of the text is treated as a somewhat static tableau, coloured by the overall sonority of its accompanying pitch set. Within each section, the designated pitch set is used freely as an unordered collection based on its collapsed scale form, but there is also in each section at least one prominent reference to the registrally fixed vertical form produced by the process of expansion, the outer sections of the piece being exceptions to this since their sets are already scales. Many sections begin with this reference to the vertical form of the set; again, the second section of Paragraph I is an example of this. The gradual rising motion of the first section of Paragraph I purposefully leads into this widely spaced chord which then gradually collapses towards the fixed vertical form of $\mathrm{P}+1$ at the beginning of Paragraph II, the result being that the outward/inward contour of the whole series of sets is made audible on a large scale throughout the composition. Another result of using the vertical forms as points of reference is that the bass notes of each sonority function as tonal centres adding to the impression that each section is individually coloured by its particular pitch set. Many of the local harmonic events in the orchestra are simply the result of moving sequentially (often with inversional symmetry) from one vertical pitch set to the next as in the connection of $\mathrm{P}+5$ in the second part of Paragraph I to $\mathrm{P}+1$ at the beginning of Paragraph II (mm. 33-71). Other possibilities include fragmentation of the full sonority so that individual portions of the total verticality are heard either as separate harmonies or as a gradual unfolding of the full chord. Examples of this include the stripping away of notes from the full string chord ( $\mathrm{P}+6$ ) in the second section of Paragraph II (mm. 91-97) and conversely the layer-by-layer building up of $\mathrm{P}+7$ in the full orchestra in part two of Paragraph III (mm. 179-195). The vertical forms of the two sets $\mathrm{P}+3$ and $\mathrm{I}+3$ appear not as points of departure or arrival in their respective sections (Paragraphs IVa, mm. 199-218 and VIIb, mm. 355-375) but rather as static, delimiting frames for the music of the voices; they are both sounded as punctuating chords played by the harp in IVa and pizzicato strings in Vlib.

In contrast to the rather process-oriented way in which the pitch material is treated in the orchestra, the voices exploit and explore more of the expressive potential of the material. As stated above, melodic contour is one means by which the rhythmic declaration of the words may be enhanced or undermined. Although they are not as predetermined as the rhythmic formulæ which constantly recur, there are numerous recurring melodic formulæ present in the piece as well. For example, threesyllable, compound words such as brēostceare and cearselda found in the opening lines of the poem are frequently given a melodic contour of three, descending pitches. As opposed to the rhythmic formula which remain fixed throughout the piece, these melodic formulæ vary considerably from section to section depending on the interval content of the corresponding pitch set. So whereas in Paragraph Ia the nature of the wholly conjunct $\mathrm{P}+0$ collection allows this descending, three-note formula to be conjunct regardless of the starting pitch (mm. 15 and 19), in Paragraph IIb the P+6 collection dictates that this same contour starting on certain scale degrees must yield disjunct motion (m. 92 and following). Thus by applying similar melodic formulæ to different pitch collections, the differences between
those sections are emphasized:*
The distribution of the sections of the poem among the voices is based mainly on their meaning, so that passages written in the first person are sung by the soloist, the remaining ones being sung by the chorus. There is however no first-person narrative in the second half of the poem, so here the soloist and choir alternate more freely. Aside from the formulaic melodic aspects discussed above, the pitch material in the voices is treated in a way that is characteristic of almost all the choral music which precedes The Seafarer in my output. The main difference is that whereas previously this style has been most frequently applied to purely diatonic collections, here most of the piece is based on collections which are non-diatonic. This composition represents a revisiting of some of the styles and procedures with which I was preoccupied before beginning my studies at Durham. Now however they have been enriched with elements of the results of my experimentation with the other more strictly processoriented pieces presented here. More importantly, I believe that the composition of The Seafarer must have been influenced (largely unconsciously) by the way in which I had already begun to use systematic procedures in my electroacoustic pieces. This synthesis of old and new will be more fully realized in the last two pieces presented here.

A final word must be added concerning the unusual orchestration of this piece. It is intended to represent a kind of updated version of the Anglo-Saxon "orchestra". There are many instruments mentioned in Old English literature, but the most famous is the harp (or lyre) which is a part of the hoard of goods found at the Sutton Hoo ship burial site. The harp is mentioned frequently in Old English literature as the instrument which accompanies the recitation (which may have been more like singing than speaking) of the poetry itself. The piano and strings alongside the harp may be seen as its distant, modern relatives. The flutes, drums, and other percussion instruments, although not as poetically important as the harp must certainly have been known to the Anglo-Saxons in some primitive form also. The instrumentation, as is also the case with the systems of pronunciation and rhythm applied here to the Old English language, is meant to be more of a stylized, practical evocation of the past rather than a scientifically rigorous recreation of it.

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## Section 5

## Wear and calling at

Wear and calling at belong to a different category of music from the pieces discussed in this portfolio thus far, not only because they are electroacoustic works, but because they share concerns which are different from those dealt with in most of the other pieces. Although they were composed two years apart from each other, they form a kind of diptych. Both pieces make use of source sounds recorded outside the studio, and although the source sounds differ considerably between the two pieces, the techniques used to extend them are practically the same, and the overall forms of the pieces are very similar.

Wear was composed for the Durham University Festival of Environment held in May of 1996 where it appeared as part of the Music Department's contribution to the festival: a series of performances of "water" music. Wear uses a series of sounds recorded on the banks of the River Wear in Durham and also in my bedroom in one of the Graduate Society halls of residence. In keeping with the theme of the festival, the prevalent sound used is that of water. The fairly long segment of sound recorded by the river does not actually contain any sounds of water but rather of birds singing on the riverbanks and the noise of traffic and construction machinery on nearby streets. The water sounds come instead from the bedroom washbasin, and one other group of sounds not directly related to water comes from the "Grad Soc Disco" that was in progress in the adjacent residence hall on the night the other sounds were recorded.
calling at was not composed for any specific occasion, and its choice of theme came about quite by accident. A few of the women who make the announcements over the public address system in Newcastle Central Railway Station have a particular style of declamation which to some ears sounds more like singing than speaking. It is possible that when in the right frame of mind and with circumstances coinciding in just the right way, a person can have a very musical experience in a train station. The song-like announcements echoing under the long roof; the horns, bells, and whistles; the laughter of young children - all of these mesh together to form a kind of "un-composed" tone poem. calling at is an attempt to capture this elusive moment, but in a decidedly composed way. The source material for this piece consists of recordings made in Newcastle Central Station on two different days. Very little attempt was made to capture specific sounds other than ensuring that the announcements - the main inspiration for the piece-were well represented. Other captured sounds include trains arriving and departing and the sounds of passengers coming and going.

There are two contrasting approaches to the material used in both pieces. Some sounds are taken as short, isolated entities which are used as individual musical events and/or combined with other such sounds to build more complex events and gestures. Other sounds are used very much in their raw state,
particularly those longer sequences of uninterrupted recording which capture a whole series of events. In Wear, the sounds of splashing heard in the second section of the piece are examples of the short, isolated type of sound. By sampling the sounds and triggering them with a sequencer they are used as a type of percussion instrument. Sounds of individual water droplets and short gushes of water produced by quickly raising and lowering the drain-plug with the sink full of water are used in a similar way. The very first sound heard in calling at is another example of the isolated type of sound, but one that is derived and used in a different way. As the splash used in Wear is already a discrete sound there is not much difficulty in getting a clean sample from it. However, the opening sound of calling at is the result of much more editing and signal processing. It is a segment of one of the train announcements: only the words "calling at". These words are first excised from the rest of the announcement and then heavily filtered to remove as much of the ambient noise as possible. The first sound heard is this filtered "calling at" time-stretched to 128 times its original length. At the halfway point of this first sound, the words are repeated, stretched to 64 times their length, and then again to 32 times, etc. to build up one layer of the opening section of the piece.

The long sequence of sound recorded on the banks of the River Wear is an example of a sound consisting of multiple events used in its entirety. This is the only such source sound used in Wear, and it appears in several of the layers that make up the first section of the piece, both time-stretched and compressed as well as transposed and panned from side to side. In contrast, almost all of the source sounds in calling at are of this type as there is no way to get a clean recording of individual sounds in the noisy environment of a train station. (There is always the background hum of engines, even in the quietest segments.) Several different complete announcements are used in the piece, including one in the first section which is time-stretched and played forwards and backwards simultaneously. Another long sequence of sound is used in the following section. Rather than being altered in duration or pitch, this sequence which includes many sounds of people coming and going is gated so that the continuity of the sound is broken.

Some of the processing techniques used have already been mentioned above, but it may be useful here to summarize the most frequently used techniques and briefly to describe the devices used to obtain them. Both pieces make use of software and hardware signal processing. All of the primary sound editing (truncating, filtering, reversing) as well as time stretching and compression was done on the Macintosh. Panning, reverb, and gating were applied using external hardware devices such as the Eventide Harmonizer. This device is mainly responsible for those surf-like, "watery" flange effects used in both pieces and also for the ringing comb filters at the end of Wear. The MIDI passages which make use of short, sampled sounds were sequenced using Digital Performer on the Macintosh. The final mix of all sounds and sequences for Wear was done on a digital 8-track, whereas for calling at, all of the mixing was done using Digidesign Pro Tools on the Macintosh.

As mentioned above, another similarity shared by the pieces is their overall form. Both pieces can be divided into several connected sections which act almost like movements played attacca. This is the result of using the same approach in assembling all of the sounds. In both cases, the sounds are ordered and layered in such a way that there is a timbral (and sometimes melodic/harmonic) connection between adjacent sounds and also between the larger complexes formed by them. For these pieces, this assembly of sounds was performed largely "by ear" and by intuition. Some complexes of sound are made up of excerpts from the same source recording, such as the time- stretched/compressed riverbank sequence which comprises most of the first part of Wear. Other complexes are made up of sounds from different sources that have a similar timbral quality as a result of processing. In calling at, sounds of doors closing and conductors' whistles are transposed, filtered, and stretched in similar ways and
then used together as a kind of percussion instrument in the second section of the piece. The effect of assembling sounds in this way is of a type of musical journey in which similar sounds are heard throughout the piece in a variety of contexts. In fact, when I have played Wear for groups of nonmusicians not at all accustomed to hearing electro-acoustic müsic, I have suggested an extramusical program to help them follow the piece: a journey along the entire length of the River Wear, from its source in the bleakness of the Durham Dales to the place where it empties into the sea through the mouth of the once busy shipbuilding centre of Sunderland. The aspect of journey also binds these pieces together with The Seafarer. In addition to the obvious transportation analogies that can be made with the subject-matter of all three pieces, there are also formal similarities between the pieces. This primarily involves the episodic stringing together of sections which within themselves are somewhat static, like discrete steps along the way from the point of departure to the place of arrival. However, there is an important difference here also. The type of journey suggested by Wear and calling at is an incomplete one, or perhaps each piece shows a glimpse of a much larger journey. This is due perhaps to the manner in which both pieces end: a gradual receding into the distance of a static haze which may hide further episodes yet unheard. The Seafarer however suggests a different type of journey. Here, the narrative of the poem and the palindromic nature of the pitch structures coincide to reinforce the idea of a circular journey which is completed by a return to the point of departure, albeit in a transformative way.

On a more mundane level, the way in which the sounds are assembled in Wear and calling at shows a difference in approach to the idea of systematic composition. There are systems and processes at work in these pieces, just as in the first three discussed, but it seems that in these two electroacoustic pieces they are used in a less literal way. It máy have something to do with the musique concrète nature of these pieces: the source materials are already created and not themselves the result of any process or system. Perhaps when my musical materials are themselves the result of, or bound up in a systematic process it is difficult for me ever to let these processes come to a halt; whereas when the materials are "found", I feel more free to adopt a dual approach including both the rigour of mechanical processes (as in the assembly of the variously time-stretched versions of the words "calling at") as well as the spontaneity of intuition (as in the method of combining sounds according to timbral resemblance) and improvisation. This notion is investigated further in the last two pieces included in this portfolio.

## Section 6

## String Quartet and Once Was Wood

String Quartet and Once Was Wood are both part of an effort to loosen up the restrictions encountered in the earlier acoustic compositions presented here. As has been stated above, the first three compositions were the result of an attempt at developing a systematic approach to composing. However, it is possible that some of those early efforts (not included in this portfolio) may have yielded results that are at times sterile and impersonal. Therefore, in these two latest compositions, a change of approach may be noted. Rather than allowing systematic processes to govern the composition of a piece from the genesis of the basic material to its extension and development, here processes are applied in a freer way to material which prëexists in a spirit similar to that encountered in the electroacoustic pieces. This change of approach was the result of the realization that my composing seems to benefit from using some sort of "found object" - whether that be a text, a "concrete" sound, or borrowed material-as a starting point.

### 6.1 String Quartet

The first inspiration for String Quartet came during a performance given by the Kreutzer Quartet during one of Durham University Music Department's Lunchtime Concerts. The programme included Haydn's String Quartet Op. 64, No. 2 in B minor. I was struck by the opening few bars of this piece and immediately imagined that the opening motive might make an interesting subject for a minimalist-style composition. I have never been particularly interested in minimalism, but recent investigations into the music of John Adams (particularly Part I. of Harmonielehre and Short Riḍe in a Fast Machine) have broadened my appreciation of the potential of this compositional æsthetic. String Quartet is therefore a belated realization of this moment of inspiration.

Perhaps the most notable thing about those opening bars of Haydn's Op. 64 quartet is their tonal ambiguity. The first violin's motive at first seems to imply the key of D major. It is only when the rest of the quartet enters on the last quaver of $m$. 2 that $B$ minor is confirmed as the tonic. Haydn had used this musical "joke" in the first movement of an earlier quartet as well: Op. 33, No. 1, also in B minor. In this quartet, the implication of a D major opening is even stronger, and again it is only at the end of the second full bar that the listener is directed towards B minor as the tonic. Material from the openings of both of these works by Haydn is used in String Quartet, and it is primarily this use of borrowed vs. original material that separates String Quartet from Once Was Wood.

Figure 6.1: Haydn, String Quartet Op. 64, No. 2 in B minor; Mvt. I, mm. 1-4


The three-movement structure of String Quartet and in particular the order of movements - fast, slow, fast (Scherzo) - is modelled on Karol Szymanowski’s String Quartet I in C major, Op. 37.* There is no intended significance in the cross-referencing of Haydn with Szymanowski. It is rather that this order of movements provides a suitable frame for the exploration of Haydn's material, and at the same time gives the Scherzo special prominence. (Emphasizing the Scherzo was one of my primary intentions in composing this piece, in part because of the joke-like nature of Haydn's opening material.) The two outer movements were composed first, each based on one of Haydn's opening themes, while the second movement acts as a bridge by combining the themes used in the outer movements.

The opening music of Haydn's Op. 64, No. 2 provides the material for mvt. I. (Vivace), which is a sort of moto perpetuo. Figure 6.1 shows Haydn's original music and labels the parts of the first violin's opening statement that are used. The movement is made up of four sections, each of which moves from one point of stasis to another. After the exact quotation of Haydn's opening music in m. 1, the four notes ( $G F \sharp C \sharp D$ ) of motive ' $B$ ' are constantly repeated, varied only by duration until this opening episode is broken down beginning in $m$. 30. Then the demisemiquavers of motive ' $A$ ' gradually reappear amongst the repeated notes in the violins. These eventually spread to the increasingly compressed statements of motive ' C ' in the viola and cello until a new point of momentary stasis is reached in m .43 . The third section which follows is marked by a very gradual move from one point of stasis to the next, and is an illustration of the type of minimalist procedure that I admire in the work of John Adams, particularly in reference to the pacing of the musical change or metamorphosis. There are several mechanical processes at work here simultaneously. Initially (m. 43) both pairs of instruments share a similar kind of musical figuration. Then the ostinato in the upper strings is extended intervallically, tending towards staccato, increasingly disjunct motion. Concurrently, the lower strings' ostinato is also extended as more notes are added to the ending scale figure, tending towards legato, conjunct motion. However, not long into these processes, interpolations are made into the music of each pair of strings. The material interpolated into each pair of instruments is related to the music of the opposite pair, so that by the climax of the section in m . 77, a different kind of stasis has been reached by way of

[^2]a combination of contradictory processes that assures an overall balance of motion (disjunct/conjunct) and articulation (staccato/legato). The climax is interrupted by the abrupt return of ' B ' in m .7 .8 which also signals the gradual unwinding of the processes of the third section and another move towards a new point of stasis: the return of the predominance of ' $B$ ' itself at the end of the movement.

This movement may seem to progress no further than the most systematic of the process-driven compositions among the earlier works presented here, and although it does revisit many of their techniques, I believe there are several differences. First of all, in the earlier pieces, mechanical processes are most often used to generate and/or maintain fairly static textures or episodes, whereas here they are used to move from one point of stasis to another. In general it is this impression of movement that may be the most important difference. Obviously the diatonic/chromatic issue is still in evidence. This movement represents the diatonic extreme of the three of the quartet. Its use of decidedly non-chromatic material-it even avoids the raised leading-tone of Haydn's B minor-is reminiscent of Slender Rose, but here there is a little more room for movement within the pitch collection: from the four-note ' B ' set of the opening to the diatonically saturated third section and back, vs. the constant pentatonicism of Slender Rose. In general, the processes in this movement are not uniformly applied as strictly as they are in some of the èarlier pieces. For example, although there is a systematic plan which determines the positions and lengths of the interpolated fragments in the third section, the pitches of the interpolations are not strictly regulated, being chosen rather according to vertical sonority. It is in the relationship of the music to its original source material that this movement differs most significantly from the previous acoustic compositions.

An analogy may be made between the way Haydn's music is used in this movement as a found object and the way in which some of the short; discrete sounds are used in the electroacoustic pieces. In both cases the motives/sounds are used as fragments taken from larger contexts. In both cases they are then subjected to various processes and transformations. They are filtered, transposed, stretched, compressed, combined, truncated, and sequenced to create larger complexes of sound. Both the way in which the individual sounds are combined to create these larger complexes and also the way in which the larger complexes are layered and ordered to generate the music of the piece represent a combination of mechanical processes and heuristic decision-making. Another aspect of this analogy can be seen in the third movement.

In mvt. III. (Scherzo), the borrowed material is treated more like one of the extended source recordings that are used in the electroacoustic pieces. Here the opening of Haydn's Op. 33, No. 1 (Figure 6.2 ) is quoted in full, albeit transformed into a scherzo. Then it is fragmented and used in a way similar to that found in the first movement, including gradual shifts from one point of stasis to another, largely controlled by mechanical processes. One such shift occurs beginning in m. 105. This section eventually leads to the return of the opening material in m. 135, again stated in full, but transformed differently. Here, as in the electroacoustic pieces, there is another level of interplay between the original material and the resulting music. The incorporation of full statements of the original material as well as short fragments allows additional points of reference to be set up. For example, in both Wear and calling at, long stretches of source recording are allowed to run their original lengths, modified but unimpeded. These statements then form layers of sound over, within, and around which other sounds (both complex and discrete) are heard and with which they interact. In String. Quartet III., the sounds are not layered, but are rather used as horizontal points of reference and moments of stasis. In both cases the materials are allowed to stand in their (nearly) original states and are not the result of arbitrary processes.

Figure 6.2: Haydn, String Quartet Op. 33, No. 1 in B minor; Mvt. I, mm. 1-11

(Obviously there are clear and important differences between the ways the material borrowed from Haydn and the source sounds are used as found objects in String Quartet and the electroacoustic pieces respectively. In Wear and calling at, the source sounds are taken from contexts that are not musical in a traditional sense. They are then recontextualized and treated as musical entities with a considerable amount of freedom. In String Quartet, the found objects are themselves already music, and furthermore, music in the very same genre. Therefore, the treatments and transformations are far less drastic and the recontextualization is much more subtle. It is mainly the idea of using "found objects" as a starting point that forms the link between these pieces.)

As stated above, the second movement (Largo) forms a thematic bridge between the outer two. However, from the points of view of style and technique it is more of an excursion. The thematic links are found at the very beginning of the movement. The viola's figure in m .1 is an inversion of the cello figure (' $D$ ') found in m. 3 of Haydn's Op. 33, No. 1 (minus the anacrusis) and which figures so prominently as an ostinato in mvt. III. A transposition of motive ' $B$ ' from mvt. I (starting on the downbeat rather than the anacrusis) is presented by the viola and cello together in the first two beats of m .2 . These two small motivic cells are rather freely developed and extended for the remainder of the movement using primarily traditional types of techniques. The importance of mechanical processes is negligible in this movement, perhaps the most mechanistic section being the rising sequence in
$\mathrm{mm} .32-38$. The most obvious issue here is that of the chromatic, tonal style of the music. This is best discussed in reference to the two other movements.

The very use of borrowed material in this quartet raises several issues, perhaps the most important of which is the relationship between the borrowed material and what is produced from it. Since, in this case, the borrowed material is in the Classical style, some sort of comment on common-practice tonality is unavoidable. Each movement positions itself differently in relation to Haydn's original music and to tonality. In Haydn's original Op. 64, No. 2 movement, the initial perception of D major is quickly dispelled by the half cadence in $B$ minor in mm. $3 \& 4$. However, the music does return to D major at the end of the exposition, and assuming this section is repeated, the impression of D major in $\mathrm{mm} .1 \& 2$ will be even stronger the second time. Haydn seems to be capitalizing on the relative minor/major key relationship to create a tonal ambiguity which at least momentarily makes the listener uncertain as to exactly which mode the movement is in. The first movement of String Quartet does not play on ambiguity as does Haydn, but rather prolongs the feeling of uncertainty by choosing to avoid the $A \sharp$ leading-tone. In the end it hints at neither $D$ major nor $B$ minor, but perhaps most strongly suggests a tonic of $\mathrm{F} \sharp$ (Phrygian). As many of my pieces do, this movement uses the diatonic scale as an artefact of tonality, but in a non-tonal way.

Mvt. II leaves diatonicism behind and enters a rather different sound world. Here tonality is explored in a much more chromatic milieu. Aside from a more overt reference to tonality, this movement may seem to have hardly any relation to Haydn's music at all. However, I have always felt that Haydn's use of chromaticism is very much a prefiguration of the Romantic style. Whereas mvt. I quotes Haydn's quartet literally but avoids common-practice tonality, this movement "paraphrases" Haydn's material, but provides a tonal context. It is up to the third movement to bring these two opposites together.

The Scherzo begins with a literal "translation" of Haydn's original material with the original tonality intact. However, rather than the diatonic scale being used as an artefact, it is tonality itself that is used. Harmonic progression is small-scale only, and not of structural importance. Haydn's material is heard both in tonal episodes and as an element in areas of non-tonal (and non-diatonic) development. On the whole, String Quartet explores Haydn's original material in relation to the axis of diatonic-chromaticalready common in many of my earlier pieces-as well the axis of tonal-atonal-one which I have not used as frequently. In contrast to a piece such as Schnittke's 3rd String Quartet which quotes and uses material from three different sources/styles/eras, my String Quartet uses two very similar sources in three different ways.

### 6.2 Once Was Wood

The last piece presented here, Once Was Wood, is perhaps the best example of a synthesis of my compositional concerns and techniques to date. It is envisaged as a summation of the various trends present in my compositions both before and during my studies in Durham. Once again, the diatonic/chromatic issue is revisited but without the common-practice tonality of the borrowed material of String Quartet. Systematic procedures are used, but in the freer manner of the electroacoustic pieces, the musical materials being treated somewhat as found objects. Also, in Once Was Wood, greater attention is paid to the concern of idiomatic writing which was first taken up in Colloqvivm. A new concern which this piece addresses is the dynamic of soloist vs. ensemble. This generally goes against the grain of my tendency towards an "egalitarian" type of canonic polyphony and is perhaps the biggest personal challenge contained in composing this piece.

There are four motives that provide the material for Once Was Wood. Although these motives are original, resulting from precompositional improvisations, they are used as if they were found objects (unlike those which are the result of mechanical processes or sets of rules as in my three earlier acoustic pieces) in order to tap into the freer spirit of the treatment of material found in the electroacoustic pieces. The first motive - which is diatonic but somewhat modally ambiguous-is found in the solo flute's first measure and in the immediate extension found in m. 2. This is answered by an extended chromatic variation of the opening gesture beginning in m. 3, the most important part of which is the descending arpeggio heard first in the second half of m. 4. The third motive begins with the viola in m .8 and continues with the lower strings. It is diatonic, more modally stable than the flute's opening music, and is also given a polyphonic, imitative texture. Out of this grows the fourth motive beginning with the viola in m .10 and continuing with the violins. Like the second flute motive, it is an extension of the preceding one; however, it remains diatonic and combines motive 3 with the rising demisemiquaver figure of the flute's motive 1. Presented in fairly quick succession as they are, these motives establish a considerable degree of instability in the opening section of the piece. This provides the impetus for the forward motion of the music as various strategies for developing and reconciling these four opening motives are explored. Unlike The Seafarer (and to some extent String Quartet), where the music is contained within a predetermined formal framework, this exploration takes place in a way similar to that of the electroacoustic pieces: the form of the piece is generated as it is composed and is the result of a combination of mechanical procedures and improvisation.

After a brief recapitulation of motives 1 and 2 (mm. 16-20), the harp's version of the downward arpeggio of motive 2 becomes an accompaniment figure for a passacaglia episode. The inclusion of a passacaglia was one of my initial ideas for the piece. I have always liked this form, and here it serves a dual purpose: allowing for a rather free development of the musical material in a soloistic manner while also providing an episode of relative stasis following the instability of the opening music. In fact, the regular meter combined with the somewhat ambiguous E Ionian/B Mixolydian diatonic collection mark this section as the pole of maximum stability of the composition. The flute begins in an improvisational way, mainly developing elements of motives 1 and 2 with occasional hints of motive 3. As more instruments enter, the flute begins to incorporate elements of motive 3 and also to introduce a new figure marked by short, repeated notes (e.g. m. 41). This signals a change from diatonic to chromatic as well as a movement away from the first point of stasis. For the climactic, final "variation" of the passacaglia (mm. 49-55), the full ensemble (minus the solo flute) join to combine motives 3 and 4 with a hybrid consisting of the rising figure of motive 1 and the downward arpeggio of motive 2.

Following a brief solo cadenza based primarily on motive 2 (mm. 56-64) there is an obvious change of tempo and mood. In response to the previous section, there is now another episode, but one of relative instability. Most of the music is derived from motive 1 only, and although locally the diatonic identities of the motivic elements are maintained, the rapid movement from one diatonic area to another through sequential transpositions results in a cumulative chromaticism. This chromaticism is further emphasized by short interruptions such as those found in mm. 73-76 and 85-90 which are based on intervallic expansions of elements of motives 1 and 2 . When the strings enter in m .99 , the diatonic/chromatic relationship is reversed: now the sequential statements result in a denser cumulative chromaticism while the interruptions (mm. 103-106, 112-115) are more diatonic. The last two of these interruptions (beginning in m. 120) introduce a new theme which is based on an inversion of the melodic contour of motive 1 .

This new theme figures prominently in the following section (mm. 124-151) which represents the
second episode of relative stasis. Here, instead of in the ground bass of the Western passacaglia, that stability is found in a reference to the style of Javanese gamelan music. The new theme begins the melodic statement in the lower strings and is also used as part of the "balungan" (found in the accented line of crotchets in the harp). ${ }^{\dagger}$ This section leads to another episode of instability which climaxes in m. 175 (at which point elements of motives 1,3 , and 4 are combined) and gradually winds down to the end of the piece, recalling earlier sections on its way.

The relationship of the soloist to the ensemble varies throughout the piece. At first the solo flute is a sort of narrator or presenter of themes. During the passacaglia episode, it may be seen as the leader of the whole ensemble until it grows larger, at which point the solo flute steps aside to allow the ensemble to take the lead momentarily. In the following section, the soloist takes part in the ensemble in a more egalitarian way until once again, it steps aside for a longer period of time during the gamelan episode. Then the solo flute combines its roles of narrator/presenter and leader for the final section of the piece.

In general this composition attempts to present and develop musical ideas in a balanced way without resorting to the tight restrictions and rules imposed by some of the systems I have experimented with in earlier pieces. As mentioned above, the overall form of the piece was not predetermined at all (other than my wish to include a passacaglia). The construction of the piece from the four initial motives is analogous in principle (and perhaps more so here than in String Quartet) to the way in which sounds were combined in the electroacoustic pieces: a mixture of mechanical process and improvisation. A freer interaction and juxtaposition of diatonic and chromatic materials (rather than the codification of their relationship in a systematic way) more fully realizes the expressive potential of both types of materials. For example, whereas in a piece such as Colloqvivm, I was very interested to apply a strict set of rules to some material and then puzzle out the best way to utilize the results (which was a meaningful exercise in expanding the range of my musical vocabulary and adding new ideas to my repertoire), in Once Was Woód I have not applied rules and processes in as literal a manner. This allows for different possibilities: the non-literal transformation of motive 1 mentioned above becomes a new motive suggestive of gamelan music, something which is already part of my musical experience on which I now have an opportunity to shed a new light.

The title, Once Was Wood, is meant to be vaguely poetic and suggestive of two things primarily: wood as the original material used to make many types of flute, and wood as a raw material for craftsmanship generally (Jeffrey W. Prichard to whom the composition is dedicated was a maker of fine, handcrafted historical furniture reproductions). This work is one of my most personal creations, in which I feel that I have been able to combine techniques and sounds gleaned from previous (and perhaps more "academic") experiments with both large issues and small details that have always been central to my identity as a composer.

[^3]
## Section 7

## Conclusion

From the canonic and diatonic/chromatic preoccupations of my pre-Durhàm work to the results of my experiments with systematization and attempts at more idiomatic instrumental writing and finally to my latest efforts to synthesize and mediate all of thesë concerns, there are several threads which run throughout the compositions in this portfolio. First of all, those early issues are still present throughout the works in one way or another. I still regard canon as a very effective and economical means for extending musical material in an organic way. The unifying function of strict imitation and the transformation of a single melodic line into polyphony remains a phenomenon that still has potential for much exploration. Besides obvious examples of canon such as Colloqvivm $V$ and the "gamelan" episode in Once Was Wood, there are canonic procedures at work even in Wear and calling at, in which as alluded to briefly in the introduction, certain passages are generated by the distribution of the notes of a monophonic MIDI sequence among several different sampled sounds to produce a texture much thicker than that implied by the original line. Symmetry is also seen in several different ways in this portfolio, most notably in the palindromic and inversionally symmetric series of pitch collections of The Seafarer. There is something in the neatness of palindromes and inversional symmetries that I find very attractive. Perhäps the next step will be to look at ways of counterbalancing them so that the interaction of symmetry and asymmetry may be developed as another layer of musical dialogue.

The issues surrounding pitch also invite further exploration. Although these concerns began with an undergraduate assignment and may still seem to be elementary to some, I hope to remain flexible with regard to my use of pitch collections. Part of this concern has to do with my desire to write for different audiences. From my purely diatonic choral pieces to the chromatic/diatonic serialism of ColloQvivm, I would hope to be able to reach many different kinds of people with my music. I am too much of a realist to ignore the fact that diatonicism is alive and well in the musical experience of the vast majority of my prospective audience. One goal of my diatonic music has been to use the diatonic collection in unusual ways. In a piece such as Collopvivm VII $\Omega$, the diatonic collection functions only as a link between chromatic musical entities. In either case, the listeners are given a thread which may connect their experience of my music to their experience of the larger musical world. However, the most important reason that this issue remains is that I still like the sounds of both the diatonic and chromatic collections, and I hope that by continuing to find new ways to bring them together I will continue to be able to enjoy the best of both worlds. I am obviously not the first modern composer to question the assumption of a chromatic/atonal axiom vs. continuing possibilities for diatonic/tonal language. And as Berg, for one, shows so skilfully in his Violin Concerto, the two worlds need not be kept apart.

The experimentation with systematic processes-sometimes to extremes-was at first an attempt to mediate what was seen to be the largely "instinctive" nature of many of my earlier pieces. An additional result of following some of these mechanical constructs through to their conclusions is the creation of musical ideas which I might never have discovered through more traditional practices alone. In very strict process-driven pieces such as Slender Rose and certain of the movements of Colloqvivm, there is a sense in which the process is the piece. In a rather circular way, the processes which generate the piece can be justified only as long as they produce musically meaningful results. If the above-mentioned pieces are fair representatives of this type of composing, then it seems that the most important details involved are the choice and/or generation of the initial materials, a great deal of trial and error in order to find combinations of material and process that produce satisfactory results, and perhaps a bit of luck. Here the burden of compositional decision-making is shifted to the front end of the whole process - the area of precomposition. The distinction between process music and other types of composition is that with process music, most of the composer's work is done before the notes are written. This however does not necessarily invalidate the music nor does it release the composer from any responsibility once the processes are allowed to run their individual courses. The composer's first responsibility is to ensure that the material and processes are well designed and well matched so as to produce the desired output. Of course there is a middle ground here as suggested above. Processes may sometimes produce results not previously considered which may later be deemed suitable for inclusion in a composition provided that they fit in with the logic/æsthetic of the piece as a whole. For example, if a process generates something truly unplayable, then this result may not be justified simply because it was produced by the process - unless of course an important aspect of the composition involves playability/un-playability. In the case of Colloqvivm, one of the main objects of the composition was to develop my idiomatic instrumental writing. It was therefore necessary that I intervened occasionally-as in movement $V I I \Omega$ - to ensure that some of the events generated by the processes would fit well on a certain instrument.

A further evolution of the use of systematic processes is represented by movement VI of Colloqvivm and The Seafarer. Here a systematic, pre-compositional design lies behind the form of the piece as a type of skeleton or blueprint, partly determining and limiting local events, but not subordinating their generation to the rules of any one process or set of processes. In these two pieces, systematically conceived formal designs are embellished by musical gestures which are partly limited by certain restrictions of the designs but which on the whole are the result of heuristic reactions to local events. They may also be the result of separate, small-scale systematic procedures which in turn interact with the large-scale structural design forming another level of musical dialogue. The structural designs may be completely arbitrary arrangements of elements like that in ColloQvivm VI or, as in the case with The Seafarer, a convergence of mathematical pattern and extramusical congruence. Whatever the combination, the interaction of formal and local levels holds many interesting possibilities for musical expression and for the role of the composer. It is a further development of the process/material/composer relationship described previously in relation to Colloqvivm II (p. 12). Here instead of reacting to accidents in the output of mechanical processes, the composer deliberately inserts a whole layer of "accidental" music thus allowing for a much more complex musical narrative. The relative freedom provided by this approach also allows for more attention to idiomatic writing while still maintaining the balance between gestures, and between gesture and form.

The electroacoustic pieces operate on different principles, and the relationship of local event to formal design is the opposite of that described above. With Wear and calling at, there are no predetermined moulds into which the sounds are poured. Instead, the sounds are assembled in an almost
stream-of-consciousness manner to build up the formal structure event by event. Here, the important compositional decisions include choosing the sounds to be recorded, the subsequent editing and processing of these sounds to transform them by varying degrees, and finally determining how they may be put together into a coherent whole. Possible new directions for my electroacoustic work inclüde returning to pieces with computer-generated sounds as well às source recordings, investigation into non-equal tempered tuning systems and microtonal pitch structures, and experimentation with the generation and destabilization of tonal/rhythmic/aural symmetries.

The final two compositions benefit from the combined experience of all of the previous ones, especially the use of new possibilities that might not have been encountered except as the result of mechanical processes and the realization that my composing seems most fruitful when it begins with a found object. They also display a less literal dialogue of diatonic and chromatic elements, especially in Once Was Wood.

The pieces contained in this portfolio represent various steps along the way of musical discovery. Some of the devices and techniques employed may be nearing the end of their usefulness and may soon need to be discarded or recycled, while others have perhaps been used in an incomplete way. This portfolio is part of a continuous evolution of compositional thought and process, which as demonstrated above, comes full circle to revisit old ideas while at the same time suggesting new directions for further exploration.

# The Seafarer <br> (2000) 

## for Soprano Solo, Chorus, \& Orchestra

by Anthony Mosakowski

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## Instrumentation

4 Flutes (3rd and 4th doubling Piccolo)
Percussion (2 players):
Bass Drum, Single-Headed Hand Drum, Tambourine, Suspended Cymbal, Crash Cymbals, Triangle, Woodblock, Claves, Shaker (Maracas)
Harp
Piano
Soprano Solo
SATB Chorus
Strings

Performance Notes: Harp harmonics sound one octave higher than written. Bass harmonics sound one octave lower than written. Words in square brackets in the percussion parts indicate the type of stick or beater to be used.

Acknowledgements: I first encountered The Seafarer in the dual language edition of Richard Hamer. My understanding and appreciation of the poem were then increased by the edition of Ida Gordon, the tutelage of Ann Squires, and many articles by numerous Anglo-Saxonists. I am most greatly indebted however to Mr. John Vickrey whose writings on the poem and whose personal assistance to me in preparing my edition made this work possible. This composition is therefore dedicated to him.

The Seafarer
I Mæg ic be mē sylfum sōð̋gied wrecan, sibas secgan, hū ic geswincdagum earfoठhwile oft prōwade, bitre brēostceare gebiden hæbbe, gecunnad in cēole cearselda fela, atol ȳpa gewealc, pǣr mec oft bigeat nearo nihtwaco æt nacan stefnan, ponne hē be clifum cnossã, calde geprungen.
Wāron mine fēt forste gebunden, caldum clommum, p̄̄̄ pā ceare seofedun hāt' ymb heortan; hungor innan slāt merewērges mōd. Prot se mon ne wāt
pe him on foldan fagrost limpeof:
hū ic earmcearig iscealdne s $\bar{x}$
winter wunade wræccan lāstum,
winemāgum bidroren,
bihongen hrimgicelum.
Hægl scūrum flēag,
pār ic ne gehȳrde būtan hlimman $s \bar{x}$,
īscaldne wāg. Hwīlum ylfete song
dyde ic mē tō gomene, ganetes hlēopor ond huilpan swèg fore hleator wera, māw singende fore medodrince.
Stormas pār stānclifu bēotan pē̄r him stearn oncwæð̃,
isigfepera; ful oft pæt earn bigeal,
hyrnednebba. N N̄̄nig hlēomǣga
fēasceaftig ferò frēfran meahte,
for pon him gylȳfeð lȳt, se pe āh lifes wyn
gebiden in burgum, bealosiba hwōn,
wlonc ond wīngāl, hū ic wērig oft
in brimlāde bidan sceolde.
III Nāp nihtscūa, norpan snīwde, hrïm hrūsan bond, hægl fēol on eorpan, corna caldast. For pon cnyssaö nū heortan gepōhtas, pæt ic hēan strēamas, sealtȳpa gelāc, sylf cunnige;

I I will recite a true story about myself, tell of journeys; how I in days of hardship often suffered times of trouble, and experienced bitter heart-ache;
[5] how I on board ships explored many abodes of sorrow, hateful rolling of waves, where anxious night-waking often befell me at the stem of the ship, whenever it would crash along the cliffs, pressed on by the cold. My feet were bound with frost,
[10] with cold fetters, while worries sighed
hot around my heart; hunger from within tore the spirit of the sea-weary one. All this is unknown to those who fare most happily on land: how I, wretched and sorrowful on the ice-cold sea, spent the winter in paths of exile, deprived of friendly kinsmen, hung around with icicles. wherein I heard nothing but the roaring of the sea, the ice-cold wave. At times I had the swan's song
[20] as my entertainment, the cry of the gannet and the sound of the curlew instead of men's laughter, the singing sea-gull in place of mead-drink. Storms beat the rock-cliffs where the tern answered them, icy-feathered; very often the eagle screamed round about, horny-beaked. None of the protecting kinsmen could console the wretched spirit, because he who has experienced the joy of life in cities, few painful journeys, proud and flushed with wine, little believes how I
[30] often had to remain weary on the sea-way.
III The night-shadow grew dark, from the north it snowed, frost gripped the earth, hail fell on the ground, the coldest of grains. Therefore thoughts now impel the heart that I myself, humble, venture upon the ocean, the salt-waves' tumult;
monað̃ mōdes lust māla gehwylce
ferð̃ tō fēran, bæt ic feor heonan
elpēodigra eard gesēce:
for pon nis pæs mōdwlonc mon ofer eorban,ne his gifena bæs gōd, ne in geogube tō pæs hwæt,ne in his dǣdum tō pæs dēor, ne him his dryhten tō pæs hold,pæt hē ä his sāföre sorge næbbe.
Tō hwon hine dryhten gedōn wille:
ne bip him tō hearpan hyge, ne tō hringpege,
ne tō wife wyn, ne tō worulde hyht,ne ymbe ōwiht elles, nefne ymb ȳða gewealc;
ac à hafad longunge se pe on lagu fundad.
IV Bearwas blōstmum nimað̃, byrig fægriad,
wongas wlitigað̃, woruld ōnetteð;
ealle pā gemoniad mōdes fūsne
sefan tō sïpe, pām pe swā penceð
on flödwegas feor gewitan.
Swylce gēac monað̆ gēomran reorde,
singeð sumeres weard, sorge bēodeð
bitter in brēosthord. Pæt se beorn ne wāt,eftēadig secg: hwat pā sume drēogaŏpe pā wræclāstas wīdost lecgã.
v For pon nũ min hyge hweorfeð ofer hreperlocan,min mōdsefa mid mereflöde,ofer hwæles èpel hweorfed wide,eorpan scēatas, cymeđ̃ eft tō mēgifre ond grēdig, gielleð ānfloga,hweteð on hwalweg hreper unwearnum,ofer holma gelagu; forbon mē hātran sind
Dryhtnes drēamas ponne pis dēade lif,lāne on londe.
VIIc gelȳfe nō
pæt him eorờwelan èce stondad.
Simle prēora sum pinga gehwylce,
$\bar{æ} r$ his tīddege, tō twēon weorpeơ:
ādl oppe yldo oppe ecghete
făgum fromweardum feorh oôringeठ.
the spirit's desire constantly urges me
to journey, that 1 far away from here
seek the dwelling-place of pilgrims:
because no man throughout the earth is so proud in spirit,
that earth-wealth remains forever.
Always one of three things in every circumstance
brings uncertainty before his final hour:
sickness or age or violence
wrests life from one doomed to die, about to depart.
nor so generous with his gifts, nor in youth so vigorous, nor in his deeds so brave, nor his lord so gracious to him, that he does not always have sorrow of a sea-voyage.
His lord will do too little for him:
his thought is not of the harp, nor of receiving of rings, nor of the delight of woman, nor of the joy of the world, nor about anything else, except the tossing of the waves; but he who eagerly sets out on the sea always has longing. meadows become beautiful, the world hastens; all these things urge one eager of spirit, urge the heart to journey in one who thinks to depart on the far flood-ways.
Likewise urges the cuckoo with melancholy voice, summer's guardian sings, forbodes sorrow
bitter in the heart. All this is unknown to the man prosperous in turn: what is endured by those who lay the tracks of furthest exile.
v Therefore my mind now travels beyond the heart's enclosure, my spirit with the sea-flood,
travels wide over the whale's home, the world's surface, comes back to me again ravenous and greedy, the lone-fier yells, irresistably incites the heart on the whale-way, over the ocean's waters, because to me the Lord's delights are warmer than this dead, transitory life on land.

For pon bip eorla gehwām aftercwependra
lof lifgendra lāstworda betst, pæt hē gewyrce, $\overline{\text { x̀r hē on weg scyle, }}$ fremum on foldan wiồ fēonda nīp, dēorum dǣdum dēofle tōgēanes, pæt hine ælda bearn æfter hergen, ond his lof sippan lifge mid englum āwā tō ealdre, ēcan līfes bl̄̄d, drēam mid dugepum.
VII
ealle onmēdlan eorban rices;
nearon nū cyningas ne cāseras
ne goldgiefan swylce iū w戸̄̈ron, ponne hi mǣst mid him mæ̈rpa gefremedon ond on dryhtlicestum dōme lifdon.
Gedroren is pēos duguð̃ eal, drēamas sind gewitene;
wuniaồ pā wācran ond thās woruld healdap,
brūcað̃ purh bisgo. Blæ̈d is gehnǣged,
eorban indryhto ealdađ̃ ond sēaraõ,
swā nū monna gehwylc geond middangeard.
VIII Yldo him on fareô, onsȳn blācaô, gomelfeax gnornað̃, wāt his iūwine, æpelinga bearn, eorpan forgiefene.
Ne mæg him ponne se fl̄̈schoma, ponne him pæt feorg losaõ, ne swēte forswelgan, ne sār gefēlan, ne hond onhrēran, ne mid hyge pencan.
pēah pe græf wille golde strēgan
brōpor his geborenum, byrgan be dēadum
māpmum mislicum pæt hine mid wille,
ne mæg pāre sāwle pe bip synna ful
gold tō gēoce for Godes egsan,

IX Micel bip se Meotudes egsa, for pon hī sēo molde oncyrreơ;
se gestapelade stīpe grundas,
eorpan scēatas ond ūprodor.
Dol bip se him his Dryhten ne ondrø̄dep; cymeô him se dēaó̉ unpinged.
Eadig biơ se pe ēapmōd leofap; cymeđ̃ him sēo ār of heofonum.

Therefore for every warrior the praise of posterity, the living, is the best epitaph, which he may earn before he must go away,
[75] by good deeds on earth against the hatred of the enemy, by brave deeds against the devil, so that children of men praise him afterwards, and his praise live from then on among the angels for ever and ever, in the glory of eternal life,
[80] bliss among the heavenly host.
all the magnificence of the kingdoms of earth; now there are neither kings nor caesars nor gold-givers such as there formerly were, when among themselves they accomplished the greatest of glorious deeds and lived in the most lordly glory.
Fallen is all this noble company, pleasures are gone;
weaker men live and hold this world, possess it through toil. Glory is brought low, the nobility of earth grows old and withers, as does everyone now throughout this world.
VIII Old age overtakes him, the face grows pale, the gray-haired one mourns, realizes that is former friends, children of princes, are given to the earth.
When he loses his life, his body will be of no use to him, neither to swallow sweetness, nor to feel pain, nor to move the hand, nor to think with the mind.
Even though a brother will strew with gold
his sibling's grave, bury beside the dead one
various gifts which he wishes to go with him
[100] gold can be of no help to the soul which is full of sin in the presence of the terrible power of God, when he hides that gold while he lives here.
IX Great is the Creator's terrible power, before which the earth turns itself aside; he established firm ground,
[105] the surface of the world and the heavens above.
Foolish is he who dreads not his Lord; death will come to him unprepared for.
Blessed is he who lives humbly; the grace of heaven will come to him.


[^4]The Creator establishes his spirit in him, because he believes in his might: a man must control a strong spirit, and hold it steadfast;
[110] and true to his pledges, pure in his ways, should each man hold himself with moderation.
[(III.1)] He who follows wealth abandons the Ruler; he loves the one and despises the other, even though he will know himself full of fire or his wrought friend burned up
[115] in fire; fate is stronger, the Creator mightier than anyone can comprehend.
$\mathbf{x}$ Let us think where we have a home, and then consider how we may come to that place, and then also strive that we may go there
[120] into that eternal blessedness, where there is long life in the love of the Lord, bliss in heaven. Let there be thanks to the Holy One, that he may honor us, Prince of Glories, Eternal Lord, for all time. Amen.

## Old English Pronunciation Guide



Consonants: b, d, m, p, t, and $x$ are pronounced as in English or Latin.

| cg | $\left[\mathrm{d}_{3}\right]$ | English edge |
| :--- | :--- | :--- |
| sc | $[\mathrm{J}]$ | English ship |

The remaining consonants have more than one sound value depending on their environment. Please consult the IPA transcription in the score to determine which sound is called for.

| c | $[\mathrm{k}] /[\mathrm{t} 5] /[\mathrm{c}]$ | English cat/English chat/German Ich |
| :---: | :---: | :---: |
| f | [ f$] /[\mathrm{v}]$ | English foot/English heaven |
| $g$ | $[\mathrm{g}] /[\mathrm{j}] /[\mathrm{\gamma}]$ | English God/English yet/voiced form of [x] (See ' h ' below.) |
| h | [h] [x] | English house/German macht/h also has the effect of devoicing an immediately following $\mathrm{l}, \mathrm{r}, \mathrm{n}$, or w . |
| 1 | [1]/[!] | English [uck/[l] devoiced by preceding $h$ |
| n | [ n$] /[\mathrm{y}] /[\mathrm{n}]$ | English nice/English ring/[n] devoiced by preceding $h$ |
| r | $[\mathbf{r}] /[\mathrm{s}] /[\mathrm{r}]$ | Latin gloria/English word/[r] devoiced by preceding h |
| $s$ | [s]/[z] | English self/English wiser |
| \%/p | $[$ [ $] / /[\theta]$ | These letters interchangeably represent both the voiced [ $\delta$ ] and unvoiced [0] "th" sounds in English weather and thick respectively. |
| w | $[w] /[\mathrm{M}]$ | English will $/[w]$ devoiced by preceding $h$ (carefully pronounced English why) |

# to John Vickrey <br> <br> The Seafarer 

 <br> <br> The Seafarer}

Old English Poem ca. gth-loth century
(2000)

(10)
(15)





(20)



(45)

(50)





II $d=144$


(35)



(85)








(105) (10)


(120)




(150)



(155)
(160)


Solo


(175)






(205)
(210)





A




B

(215)





(250)

(255)

(260)



VI
$\int=96$
Sus. Cym.
lhard. nci

(275)



## (290)


[



3 (
(

\footnotetext{
Vn 1


(315) The Seafarer


Solo





## VII

$$
\begin{equation*}
d=96 \tag{335}
\end{equation*}
$$

(30)




(35)




(370)



(375)


(39)

Salo

(400)
$d=128$

(410)

(415)
(420)


Solo



(435)


(450)





Pea. Hoid until sound dies away.


(480)


(490)




## $\mathbf{X}$







# String Quartet 

(2001)

by Anthony Mosakowski

## String Quartet

| Contents |  |  |
| :---: | :---: | :---: |
| MOVEMENT | PAGE | DURATION |
| I. Vivace | 1 | $3^{\prime} 17^{\prime \prime}$ |
| II. Largo | 12 | $6^{\prime}$ |
| III. Scherzo | 17 | $3^{\prime} 30^{\prime \prime}$ |

Note: This string quartet is based on themes from the first movements of two string quartets by Franz Joseph Haydn: Op. 33, No. 1 and Op. 64, No. 2, both in B minor.











$$
\begin{aligned}
& \text { 为 }
\end{aligned}
$$



40





65



 $\bar{\sim} m p$









II. Largo




intense, frozen, but gradually relaxing
$d=42$
60





## III. Scherzo










155
160

arco







$$
\begin{aligned}
& \text { 多": }
\end{aligned}
$$

$$
\begin{aligned}
& \text { 荤 }
\end{aligned}
$$

$$
\begin{aligned}
& =
\end{aligned}
$$



 ff

$=$

## 280


奇厝




# Colloqvivm (2000) 

## for VII instruments

 by Anthony Mosakowski| Contents |  |
| :--- | :--- |
| VIIA | p. 1 |
| I | p. 9 |
| II | p. 10 |
| III | p. 11 |
| IV | p. 13 |
| V | p. 17 |
| VI | p. 24 |
| VII $\Omega$ | p. 30 |

## Approximate duration: 16 minutes and 30 seconds

## Instrumentation

Flute
Oboe
Bb Bass Clarinet
Vibraphone
Violin
Viola
Violoncello

Performance note: The numerical title of each movement indicates the number of instruments and not the order of performance which is flexible within the following guidelines:

- VIIA must be the first movement.
- VII $\Omega$ must be the last movement and VI the penultimate.
- The remaining movements may be arranged in any order with these restrictions:
$\diamond$ There may be no more than two adjacent consecutive numbers, ascending or descending.
$\diamond$ There may be no more than two adjacent odd numbers.
© There may be no more than two adjacent even numbers.
e.g. I may follow VIIA, but then III or V may not follow I. V may not precede VI.


## ColloQvivm <br> (2000)

Anthony Mosakowski

## VIIA



This score is in $C$.








vb


Vb



10


15






* Play ossia if flute does not have low B.

IV


5







* Play ossia if flute does not have low B.

Colloqvivm




40








Violin





15



non dim.








$=$



15


Vb


$=$















Vb



Vb


p. 1
p. 10
p. 11

## Contents <br> Cipher Nota <br> Transcription Key \& Notes Transcription

Instrumentation Instrumentation

Bonang Panerus
Bonang Barung
Peking (Saron Panerus)
Saron Barung
Saron Demung
Slenthem
Saron Barung
Saron Demung
Slenthem
Saron Barung
Saron Demung
Slenthem
Kendang Kalih
Kethuk \& Kempyang
Kenong
Gongs

## Duration: approximately 8 minutes

Performance Note: The initial $\circ$ in the Kendang Kalih part indicates a rest. Acknowledgement: The cipher notation ver-
 document preparation system developed by the computer scientist Leslie Lamport to facilitate the production of complex (especially scientific and mathematical) documents. I am greatly indebted
 me to $\mathrm{IAT}_{\mathrm{E}} \mathrm{X}$ as a possible means of producing all of the dots and lines necessary for cipher notation and secondly for patiently and generously helping
 this score.





$$
\begin{aligned}
& \text { 圂 } \\
& \begin{array}{cccccccccc}
\cdot & \cdot & \cdot & \cdot & \cdot & \cdot & - & \cdot & \cdot & \cdot \\
\cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot \\
\cdot & \infty & 0 & \cdot & \cdot & \bullet & + & \circ & \bullet & \cdot \\
\mathbf{N}^{+} & \cdot & \mathbf{N} & \cdot & \cdot & \mathbf{N} & \cdot & + & \cdot & \cdot
\end{array}
\end{aligned}
$$

әsoy


Slender Rose



for Durham Gamelan
uondjassused.

## Delicately $d=72$









a


$21$






స




[^0]:    *"The construction of a basic set of twelve tones derives from the intention to postpone the repetition of every tone as long as possible. I have stated in my Harmonielehre that the emphasis given to a tone by a premature repetition is capable of heightening it to the rank of a tonic. But the regular application of a set of twelve tones emphasises all the other tones in the same manner, thus depriving one single tone of the privilege of supremacy." [Arnold Schoenberg, Style and Idea Ed. Leonard Stein. Trans. Leo Black. (Berkeley: University of California Press, 1984) 246]
    ${ }^{\dagger}$ The title of this composition is a pun on the words "slendro" and "rows".

[^1]:    *The idea of melodic formulæ as an inherent feature of Old English poetry is most notably explored by Thomas Cable in his book The Meter and Melody of Beowulf (Urbana: University of Illinois Press, 1974) in which he suggests a system based on melodic contour as an alternative to more traditional analyses of Old English prosody based on rhythm.

[^2]:    *The first movement of Szymanowski's quartet has a variety of tempi, but for the most part the tempo is fast.

[^3]:    ${ }^{\dagger}$ The use of gamelan technique and tradition here differs from that found in Slender Rose. The accompaniment figures are derived from the "balungan" in a very traditionally Javanese way rather than serially. Also, the pitch collection employed is intended to evoke the sound of pathet barang (Pathet is very roughly equivalent to mode.) which I had occasion to experiment with in another composition of mine not included in this portfolio: Missa Veni Sancte Spiritus Filius Leonis (2001), a setting of the Latin mass for choir and Javanese gamelan which uses the pelog tuning system rather than the slendro used in Slender Rose.

[^4]:    *This and the following three lines have been emended and reconstructed by John Vickrey; they are used by his permission.

