Acknowledgement

Excerpts from the score of Morton Feldman’s *Crippled Symmetry* and *Bass Clarinet and Percussion* in the article ‘Notational Image, Transformation and the Grid in the Late Music of Morton Feldman’ by Tom Hall (pp 7 – 24) are used by permission of Universal Edition, Vienna.

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Excerpts from the scores of works by Edgard Varèse, Jackson Pollock and Robert Penn Warren in the article ‘Non-Linear Temporal Constructs and the Loss of Self in Edgard Varèse’s *Octandre*, Jackson Pollock’s *Lavender Mist*, and Robert Penn Warren’s *Being Here*’ by Bruce Mahin (pp 37 – 56) are used by permission of Colfranc Music (New York), The National Gallery of Art (Washington) and Secker & Warburg (London).

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Editorial

Graham Hair

Current Issues in Music is a new journal of Australian provenance which incorporates writing about any aspect of music by authors of international provenance. However, no attempt will be made to disguise the ‘local accent’ with which the journal speaks, and each issue will include at least one article by an Australian-based author and at least one article about an Australian-based composer, or an issue relevant to Australian music.

Nevertheless, despite our intention to avoid making Current Issues in Music a parochial publication, we have chosen to give this first issue a predominantly Australian flavour. Of the seven authors represented in this first issue, four are Australian, one is Scottish, one is German and one is American. Three of the four Australian authors discuss Australian music, although Bradley Cummings’s approach to Don Banks (1923-1980) gives his discussion an ‘international’ slant, by discussing Banks’s relationship to his teacher Mátyás Seiber in London in the 1950s. Australian composer, Tom Hall, now resident in Cambridge in the United Kingdom, writes about the idiosyncratic late music of one of the most eminent American figures of the same generation as Banks, Morton Feldman. The remaining Australian contributions are by Ruth Lee Martin (writing on Helen Gifford) and Roger Covell (writing on Martin Wesley-Smith), who complement Cummings’s perspective with essays on two Australian composers born a generation after Banks.

The American contribution is also about American music, but also quite a bit more. Many authors have in the past believed that works of art in different media express something of the same zeitgeist in different ways. Bruce Mahin here considers the relationship between three ‘iconic’ American artists: composer Edgard Varese, poet Robert Penn Warren and painter Jackson Pollock, with this in mind. Scottish author Stephen Broad also considers an aspect of music in his own native country: an institution of considerable significance in Scottish musical life, the Scottish International Piano Competition. His essay concerns the heterogeneous collection of works for solo piano commissioned by the committee of the competition for performance at the competition, from UK-based composers, some of them local, with a particular connection to the piano and its repertoire. Finally, the contribution from Carola Boehm considers an international phenomenon rapidly transforming musical life everywhere: a mushrooming in the scope and extent of applications of technology to music. The representation of music in computers is a ‘hot topic’ in this area, and the author evaluates the current state of research.
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Notational Image, Transformation and the Grid in the Late Music of Morton Feldman

Tom Hall

Four and forty / all in place / eventually / edges disappear

Introduction
Analysis of conventionally notated Western music typically ignores how a score looks on the page. This article is about the precise visual appearance of the late period manuscripts of Morton Feldman (1926–1987), and how this appearance relates to processes and transformations that occur in other musical domains within the pieces, presenting challenges, dilemmas and opportunities for the analyst, performer and publisher. The notational techniques employed by Feldman underwent many changes in the 1950s and 60s, in sympathy with his later belief of 'the almost hierarchical prominence I attribute to the notation's effect on composition.' These techniques ranged from conventional notation, graphic notation, to a more standard notation where either the note durations or pitches were not specified. With a few exceptions, from 1969 Feldman employed entirely conventional notation, but on closer inspection this notation is often less conventional than it at first appears, and is our starting point here.

The majority of Feldman's late manuscripts have a fixed number of bars per system – usually nine – and these bars are evenly spaced across the page, giving the manuscripts a striking visual appearance. (The starting point of Feldman's late period is a matter of debate, but for our purposes could be said to begin in the late 1970s). Given Feldman's well known self-professed interest in painting and later, Near and Middle Eastern rugs, this visual feature of his manuscripts, if remarked upon, has usually been related to the visual arts and rugs. There has been good deal of research in this area, most exhaustively by Sebastian Claren, and more recently by Steven Johnson, writing on the relationship between the paintings of Jasper Johns and Why Patterns? (1978). But possible relationships to other artforms has arguably been an interesting but too easy way in to what is famously difficult music to analyse. Furthermore, Feldman himself claimed that most of his work was not inspired by the non-musical, stating that Why Patterns? was 'one of the few pieces I ever wrote where I was actually inspired by an extraneous idea, outside of the music itself.' Our approach here, then, is to consider Feldman's layout of his manuscripts in relation to other aspects of the music itself. In this context it is useful to compile a kind of taxonomy of Feldman's unusual notational techniques which relate to the synchronisation of parts and layout of scores.

The 'grid' and notational types
The manuscript layout of the late pieces, in which bars – since each is the same width – are aligned in periodic sequences, forms a grid, creating a consistent visual segmentation, which invites comparison of bars in the same column (or even across diagonal positions) between systems and pages. As such, these pieces bear a relationship to Feldman's graph notation pieces of the 1950s and 60s, in which horizontal space in the form of each box of the graph represents the duration of a single pulse. In a 1983 interview Feldman explained, 'I still use a grid. But now the grid encompasses conventional notation.'

The grid in the late pieces, however, differs in an important respect from the earlier graph pieces, in which the relationship between notated space as represented by a box in the grid and duration remains uniform, a constant duration. In the late pieces where the grid is comprised of bars notated on the page with uniform widths, there are whole pages where the time signature is constant – typically in 3/8 – for example Neither (1977), Triadic Memories (1981) and For Samuel Beckett (1986). But more typical is a constant change of time signature (sometimes in groups, to be discussed presently), in which, in contrast to the graph pieces, the relationship between notated space on the page, and the duration it represents is constantly changing.
In the late pieces, the grid functions in conjunction with other notational temporal aspects of the scores, which from a notational perspective, can be divided into two main groups. Pieces where:

1) conventional notation is used, laid out according to the grid, such as *Palais de Mari* (1986); *Clarinet and String Quartet* (1983);

2) the alignment of parts on the page does not coincide with their alignment in performance. Within which there are pieces with:
   a. totally unsynchronised parts: in performance, the bars align only on the first beat of the bar, notably *Crippled Symmetry* (1983) and *Why Patterns?* (1978);[18]
   b. periodic synchronisation: Pieces where in performance the bars align only after a given number of bars, such as *String Quartet* (1979) and *For Phillip Guston* (1984).

Nils Vigeland, one of the performers with whom Feldman often toured during this late period, sums up the performance reality of these pieces (type 2a above), when writing of *Why Patterns?* he states, ‘The score consists of three completely notated but metrically unaligned parts. Theoretically one could say the notation is fixed but in playing the piece many times, one discovers a fair degree of latitude concerning vertical coincidence.’[18]

The first page of the score of *Crippled Symmetry* illustrates this: downbeats in each part coincide only on the page, a fact indicated by the lack of a solid bar-line joining instruments in each system (see Example 1). To understand what is going on here, we look at the bar level, each bar usually contains a single motive (Feldman called these patterns),[19] or silence. And since motives – and therefore bars – are of various durations, there is a more than usually complex relationship between the look of the score and its performance, compounded further by different patterns of repeated bars in each instrument. Thus these evenly spaced bars function not to line up the same ‘vertical’ space played by the other instruments, but to divide the score into motives. In one of the pages of the score where all instruments share the same time signature, Feldman inserts the following comment (page 25): ‘(a reminder that this page and what follows is not a synchronised score)’. As an example of this, Example 2 shows one of these pages.

Turning to the second subcategory of non-synchronised score in which the parts realign every so often, it can be noted that there are more of these type than of 2a. Examples include *String Quartet II* (1983), *For Philip Guston* (1984), and *Bass Clarinet and Percussion* (1981). Feldman discusses an example of this technique as found in his first *String Quartet* (1979), in his 1981 essay, ‘Crippled Symmetry’. In the example cells align in performance either side of the phrase, in the silent bars (Example 3a). Feldman writes of this phrase in the piece, ‘Only after rehearsals, and by following the score, could I catch an individual pattern as it criss-crossed from one instrument to another.’[20] Note here how this technique functions in conjunction with its notation within the grid, so that as in the piece *Crippled Symmetry*, visually disjunct sounding bars are aligned, but also conjunct sounding bars that begin and end the phrase are correctly aligned in the manner of standard notation. The phrase is also notable in that when it occurs, as it does a number of times in slightly different guises in the first half of the piece, it is always *fortississimo*, in stark contrast to otherwise very quiet dynamics employed throughout.

The grid as transformational constant

One of Milton Babbitt’s fundamental insights into the nature of so-called 12-tone music was the observation that transposition of the 12-tone chromatic aggregate ‘can be regarded as effecting a permutation of order numbers [of the set]’.[21] This is because the aggregate is a closed system – in twelve-tone equal temperament there are only theoretically 12 pitch-classes – and so transposition just rearranges the same notes. Speaking in 1984, Feldman told a story that described Leo Tolstoy cutting up and rearranging the sentences of *War and Peace*, in the manner of a film editor, stating of his own work, ‘If I have something [comprising parts] A to F, I’m talking about a complete set. I’m also very interested in retrograde. And I have pieces where I don’t repeat the tones retrograde, but I repeat the whole module retrograde.’[22]

The ordering of the bars in the phrase from the *String Quartet* just discussed can be thought of in these terms. The phrase has an obvious correspondence between the vertical and the horizontal: a quartet both of instruments and number of cells. Furthermore we notice that each instrument gets a different ordering of the same four time signatures and rhythmic subdivisions in each cell, whereas in all other instances of this phrase in the piece, rhythmic unison is used between the
Example 1: *Crippled Symmetry*, page 1
Example 2: *Crippled Symmetry*, page 30
Example 3a: *String Quartet*, page 40, first system, bars 1-6

But we can regard the arrangement as the swapping of the order of pairs of bars, one that can be more formally expressed in terms of rotation and/or retrograde of the top line, as shown in Example 3b. In fact order x in this example is itself derived in a similar manner from the previous instance (in rhythmic unison) of the phrase on page 33, whose relation to x is r₁ (i.e. order DABC). Note that in Example 3b the order of time signatures form retrogrades between the inner and outer instruments as notated, and matching diagonals (5/2s and 7/4s). A way to describe the symmetry in the result of these operations is to consider the changes in order intervals between the bars. If we can say that the sequence of intervals (the interval vector) between the sequence A, B, C, D of is <1, 1, 1> (i.e. the difference between successive elements), then the interval vector of the second violin line (in relation to the first), arrived at by the retrograde and rotational transformations R₄x, is the symmetrical <-1, 3, -1>. This compositional structure forms a visual game, as it were, a structural organisation arguably as much for the eye as the ear.

<table>
<thead>
<tr>
<th>x</th>
<th>A</th>
<th>B</th>
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<tr>
<td>R₄x</td>
<td>B</td>
<td>A</td>
<td>D</td>
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<td>r₄x</td>
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</tr>
<tr>
<td>Rx</td>
<td>D</td>
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Example 3b: Bar structure of Example 3a

The chord that is articulated in Example 3a is an octachord of evenly distributed double-stops between instruments, as Feldman puts it, ‘dispersed in an overlay of four different speeds’. Within the rhythmic cell of each bar, divisions of 3, 4 or 5 are found, forming in Violin I and the ‘cello ‘crippled symmetries’ of sequence: the two fastest pulses of 3 divisions per bar surrounded one side by a slower group of 5 iterations and at the other end by a slow group of 4 divisions: a total of 15 attacks per instrument in four groups (slow, fast, fast, slow).

The octachord is formed, typically for Feldman, from a chromatic segment in this case whose segmentation into dyads between instruments is entirely symmetrical (Example 3c). What we have here, then, as Babbitt reminds us, is a correspondence...
between the time and pitch domains, as well as the visual: musical materials moved around – transposed – according to various symmetrical operations. Thus a retrograde is a time-based inversion of sequence (order), comparable to an inversion of pitch, both operations form kinds of symmetries with their original material. An ascending (that is, prime-form) chromatic segment is itself symmetrical in terms of adjacent intervals (semi-tones), as it is ‘self-inversional’ under inversion and transposition. It is this arrangement of the segment that reveals the symmetrical partitioning used to create the dyad in each instrument, as shown in Example 3c\(^7\).

**Example 3c. Pitch structure of Example 3a**

*Bass Clarinet and Percussion* (1981) demonstrates another example of periodic synchronisation of bars in terms of the visual alignment of parts on the page and their reality in performance. Throughout this piece, the two percussion parts are aligned through a time signature (3/4) that does not change, but in the bass clarinet part the time signature varies with each bar. In contrast to *Crippled Symmetry*, however, the score is not unsynchronised throughout. At the bottom of the first page, Feldman placed an explanatory note, as follows: ‘Every five systems = 135 [crotchet symbol] for both the B.Cl. and Perc.’ This turns out to be true, and leads to a few observations in comparison with previous examples.

Firstly, like the small example from the *String Quartet*, it shares the qualities of having asynchronous bars realign after every so often, with two main differences:

1. The realignment occurs not as a result of a permutation of the same combination of time signatures among instruments, but because here we have different combination of time signatures whose total durations are the same (in this case 135 crotchets).
2. The realignment occurs not at phrase level, but at a higher level of form, see below.

The whole of *Bass Clarinet and Percussion* – the piece is ten pages long – is organised around these five system blocks. At four systems per page, there are in total eight sections of five blocks, each division being easily heard as the piece unfolds, a relatively unambiguous aurally perceivable form for a late Feldman piece. At the lower level, the subdivisions within these blocks in the bass clarinet part that warrant attention. On the first page of the piece, subgroups are of 45 crotchets’ duration over 15 bars, with a suggestion of further segmentation into five bar sub-groups related to register and rhythm (Example 4). Note also the characteristic use of a chromatic (tetrachord) segment in the clarinet part, and how that within its unfolding over the first six bars, there is a lovely simple pitch symmetry around the third note (E-flat), which forms a pivot between two overlapping chromatic trichords (D-flat to E-flat and D-flat to E-natural). Expressed another way, this symmetry can be
shown by the interval succession around the central E-flat: -1, +2 [E-flat], -1, +2.

Page four of the piece comprises the last three systems of section three, followed by the first system of section four, and is also a good illustration of the type of sectional and sub-sectional divisions mentioned above (Example 5). These sub-sections are in groups of nine bars, coinciding with the grid boundaries as partitioned by the chromatic descending bass clarinet line. Here we can observe a 1:1 relationship between the grid – the piece as it sits on the page – and the structure of the heard piece. At a higher level, we have a kind of giant 4:5 (or 8:10) polyrhythm between the beginning of each of the five sections that group the piece, and the transposition of their placement on the page (page 1, system 1; page 2, system 2, etc.). We know we’re halfway through the piece when we reach section five, as it begins on the first system of page 6. It is worth noting that this piece is exceptional among Feldman’s late pieces, in the clarity and regularity of its sectional and sub-sectional divisions, and their ease of segmentation, both on the page and off, as it were.

For Philip Guston, at around four hours long, is one of the very long late pieces, the only piece that Feldman wrote in 1984. It is one of a four pieces that Feldman wrote for his touring group ‘Morton Feldman and Soloists’, that began in 1978 with Why Patterns?, included Crippled Symmetry (1983) and ended with For Christian Wolff (1986). In common with other pieces from the period, the notational style of For Philip Guston includes both regularly-aligned and periodically synchronised bars on the familiar nine bar grid.

Example 6 shows the opening page of the piece, the first system of which comprises four bar phrases of equal duration placed symmetrically around a single empty bar (4+1+4 = 9). The neat symmetry of this first system is broken in the next by a second empty bar, establishing a five bar phrase division that phases in a manner described previously for the entire form of Bass Clarinet and Percussion, but which here operates at a more local level on a single page against the grid (a ratio of 10:9). This augenmusik aspect of the first page, which continues in one form or another for several further pages can be contrasted and compared with later pages in the piece, where phrases or blocks comprise groups of three bars, thus fitting evenly onto the grid, as though the piece can’t resist the pull of this visual aspect of its notation (Example 7).

Another example of the use of transposition and symmetry is in the pitch material of the piece, its well-known motto. As can be seen in the heterophonic opening of the piece, the reordered note names spell out Cage: C, A-flat, G, E-flat (Example 6). Note here the accidentals, which change the pitch-classes of the collection from one kind of symmetrical chord, a minor 7th, into another, a major 7th chord (Feldman once joked that he had to add the accidentals, otherwise the music would sound Indonesian). In its normal order (A-flat, C, E-flat, G), the inversional symmetry of collection can be seen as in its interval-class succession of 4, 3, 4. The inherent symmetry is reflected in the sequence of notes as they appear in the motto, C, G, A-flat, E-flat: two Perfect 4ths/5ths (interval-class 5) symmetrically placed around a second interval, a semitone, forming an ordered pitch interval succession of -5, +1, +7). Again we find a correspondence between the types of symmetrical structures found in different parameters of the piece, such that, for example, we can observe that this pitch symmetry finds a correspondence with the unfolding of the sequence of opening phrases in the first system as described above.

In Feldman’s last solo piano piece, Palais de Mari (1986), there is a similar large-scale polyrhythmic phasing between the grid and some sense of phrases of durational blocks in the music, producing the same visual design on the page (lost unfortunately in the typeset score, more on this below). The visual effect is less clear than in For Philip Guston, however (Example 8). Here we have, as in For Philip Guston, a ten bar unit of sorts, against the familiar nine bar grid. Bar 11 returns to a variation of the opening cell of the piece, bar 21 introduces the first 4-note chord (simultaneity) which in bar 31 is varied with voice exchanges, and bar 41 contains another large chord, a septachord – more on this below.

There are a number of other symmetrical features present on the page. Since the grid is comprised of odd numbered elements in this piece (nine bars by five systems), a visual central point exists, on page 1 bar 23, the central bar of the central system. As can be seen in Example 8, this centre is distinguished from its surrounds by a relative ‘still-point’, a bar and its neighbour where only one note is sounded per bar (the only single note bars in the piece). Further symmetry around this point can be seen in the correspondence between second bar of the next system (bar 29), and the second last bar of the previous system (2).
For Philip Guston
for flute, percussion and pianoforte

Morton Feldman
(1926–1987)

Example 6. For Philip Guston, page 1.
Example 7. For Philip Guston, page 29.
Example 8, Palais de Mari, page 1, manuscript.
– bar 17. Another example of such symmetry is shown in Example 8, in which bar 42 contains a shortened version of the cell in bar 33, and recurs in accordance with the periodicity of the grid (after 9 bars). Around this is formed an inversion of cell positions which is caused by an inversion or sequence, in other words through a retrograde or bar orders (Example 8).

At this point it’s worth reiterating the correspondences between what is happening to the ordering of the cells in time and visual space, and what is happening to the ordering of pitches within the cells. In both cases, there are transpositional and inversional relationships: cells and pitches are being moved around inversionally – transposed and rotated in both visual and pitch space. One example of this is the (registral) voice exchange (and, for the performer, hand exchange) between bars 21 and 31, which is also visually a spatial inversion between staves (Example 8).

**Notational image**

Discussing his early graph pieces in relation to Jackson Pollock’s working method, Feldman wrote that, ‘each sheet [of graph paper] framed the same duration and was, in effect, a visual rhythmic structure’ (emphasis mine). The manuscripts of the late period arguably are also rhythmic structures, but ones in which the grid does not form segments of same the duration. This results in a more complex relation between duration and its visual representation, corresponding perhaps with the composer’s interest in the ‘crippling’ of symmetrical relations. What is needed is a descriptive term that mediates between the acoustic and visual domains of these scores, something to which Feldman’s phrase ‘notational image’ seems well suited. He uses this term to describe the small rhythmic patterns in his music, as being ‘in part notational images that do not make a direct impact on the ear as we listen.’

His term ‘notational image’ has since been picked up by theorists in relation to analysis of Feldman’s music in this context, but we can extend its use to include the notational image of a page of manuscript, the grid and its parts. These notational images exist as the result of particular notational practice, a ‘visual rhythmic structure’ that holds interpretive significance for the analyst, performer and, thus, at the very least indirectly, the listener. Considering Feldman’s notation in this manner takes us beyond debates about correspondences between his manuscripts and the Abstract Expressionist painters, towards regarding his notational practices as part of the usual prescriptions for performance, but a part that expands the ways in which traditional notation functions.

Walter Zimmerman drew in 1984 a graphical ‘pattern carpet’ (‘Muster Teppich’) representation / analysis of Feldman’s *String Quartet II* (1983), which formed part of a 1985 essay ‘Morton Feldman – Der Ikonoklast’. The drawing, which appears spread over two pages in the essay, was described by Feldman as a ‘duplication graphically of the kind of material that comes and goes in the piece.’ The drawing is made up of a grid, wherein each box represents one of the 124 pages of the quartet’s manuscript, and each box is divided into three parts, one for each system of the score. Musical ‘material’ is represented by straight or wavy lines, asterisks, squares, dots, circles, triangles and so on, and even a quick glance shows the significance of the Feldman’s page and system grids – changes of material occur at the page and system level. The drawing also shows that, as with most of Feldman’s late scores, the final manuscript page of *String Quartet II* is completely composed out (followed by a blank page of score cover) – the piece is over when the bottom of the page is reached, reinforcing the visual primacy of the page grid as a notational image within which the music sits. Furthermore, it can be argued that Zimmerman’s drawing is not only in itself a notational image of sorts, the notation being graphical as described above, but therefore a meta-notational image of *String Quartet II*.

**Musical typesetting and the notational image**

The roughly quarter of a century since the beginning of Feldman’s late period has witnessed a number of changes in how Feldman’s scores have been made available to the public, coinciding with changes within the classical music publishing industry involving financial constraints and technological advances. In addition, since his death in 1987, Feldman’s reputation, or at least public profile, has increased markedly, as measured for instance by the number of CDs of his music released. In the 1970s, many of Feldman’s scores were ‘engraved’ by Universal Edition in the traditional manner, however by the 1980s the majority of Feldman’s scores were available only as ‘special order’ copies of the original manuscripts. Since the 1990s, UE have typeset a few more of the compositions (mainly the piano pieces) using the by now ubiquitous computer software typesetting programmes.
Example 9, *Palais de Mari*, page 1, score.
In the typesetting of conventionally notated music, the horizontal space a bar is accorded is determined by in general the number of notes or rests therein. Thus space for a bar is a function of the density of its musical activity, bars are given just so much space as needed to be clearly legible and allow for suitable page breaks, and so on. Example 9 shows the opening page of Feldman’s manuscript score of the same piece (Example 8), where as a result of the notational image of the grid, each bar has the same space, regardless of its contents; in the typeset version all sense of the grid is lost. According to Bill Colleran – who signed up Feldman to UE in 1967 – Feldman never brought up the issue of typesetting to the grid, though once quipped that he liked UE typesetting his scores, as they made him a ‘legitimate’ composer. In any case typesetting the grid presents practical problems. In the case of piano scores, for example, to fit the nine bar grid in a system would require either a large score (Feldman’s manuscripts are usually A3) or a small typeface – neither considered practical for a performer. In the typesetting of the initial pages of Triadic Memories (1981) a compromise has been reached in which a six bar grid realigns with the nine bar grid of in the original manuscript every three systems.

In 2000 Edition Peters collected Feldman’s piano music for which they held the rights into a single volume, Solo Piano Works 1950–1964. With the exception of the graph pieces included, the works were re-typeset in a manner showing awareness and sensitivity towards Feldman’s grid. In a note to the edition, the volume’s editor Volker Straebel writes, ‘We have attempted to retain the design of Feldman’s original manuscripts in this newly engraved edition,’ noting that in the Variations (1951), ‘the chords […] clearly reflect a visual structure that in fact may have determined the musical structure’ (the piece is laid out on an eight bar grid). In what rapidly becomes an apologia however, Straebel then writes that with the exception of the Variations, ‘using modern technology for these new engravings, it proved impossible to maintain the original length of the individual measures and the same number of measures on each system’. The compromise that Peters has used is similar to UE’s typesetting of Triadic Memories as described above, in that for the most part a grid (fixed per piece) of a four or six bars has been used. The problematic aspect here is that both the notational image and for the most part, the position of a given bar within Feldman’s original grid, has been lost. It is ironic that the advance of the personal computer, which has made music typesetting available (and largely compulsory) to the unpublished composer, also has to date largely resulted in a compromised typesetting of Feldman’s music.

Conclusion

It is clear that Feldman was concerned from his early days with the visual aspect of his manuscripts, however far from these elements being interesting as augenmusik or metaphor for painting or something else, this visual aspect adds an additional parameter to the complex musical interrelationships that exists in Feldman’s late pieces. If Feldman’s notational images, as he claims, ‘do not make a direct impact on the ear as we listen’, they make an impact all the same which has a bearing on the music’s analysis, performance and publishing.

In the interview with Jan Williams earlier quoted from, Feldman says, ‘One of the problems I had with the early grid is that there was a tendency for it to be too design-oriented. It was very easy to make wonderful designs on the page, which I did.’ The implication here is that these early grid designs had little musical significance in comparison to later ones which were more involved with the musical design. In considering notational images formed by the grid as worthy of serious examination, we gain a layer of musical segmentation that can be related to traditional musical transformational domains. We thus have an appreciation of richer field of associational modes within Feldman’s work, one that can help us to move towards a better understanding of the sounding music itself.

Endnotes

1 Cage (1996): 1. The poem was written for Feldman’s 60th birthday in 1986.

2 An earlier version of this article was presented at the Third Biennial International Conference on Twentieth-Century Music at the University of Nottingham, UK, 29 June 2003. This article may not have been written without the memory of a talk on Feldman’s piano piece For Bunita Marcus given by its dedicatee in 1996 at the Huddersfield Contemporary Music Festival, UK. To my knowledge Marcus has not published her work, and my memory of her talk was distant enough in 2003 so as to not be able to reference any points that may have been made by her.
there.


Franco Donatoni is another composer to layout his manuscripts in this manner, however a comparison between the two composers’s scores is beyond the scope of this article.

6 Eberhard Blum states that the late work had ‘already began in 1978 with Why Patterns?’, and argues against Sebastien Claren’s date for the late work of 1984. Blum (2000).

Claren (2000).


9 All compositions copyright Universal Edition unless stated otherwise.

Hanninen (2004): 226 sums up well the frustrations and challenges of the analysis of Feldman’s late work.

11 In this case by the idea of colour variation and patterning in oriental rugs, not, as Johnson would have it, by Jasper John’s techniques (see note 8, above). ‘Johannesburg Lecture 2: Feldman on Feldman’. In Villars (2006): 178.

13 An exception to this occurs towards the end of Intersection 2 (1951) for solo piano (© 1962 Edition Peters). From box 1250 there are five tempo changes where the duration of the box/pulse changes over the course of 61 pulses.

14 Laws (1998). Laws points out that in Neither, there are two such episodes of a single time signature, at one point 18 bars of 3/8 (from one bar before Fig. 72), and later, 31 bars of 3/8 (Fig. 104). Skempton (1977): 6 notes that in Neither, each system of the grid sets half a line of Samuel Beckett’s source text (in Villars (2006): 75–76).

15 The first 17 pages (of 25) of the manuscript of this piece are notated in 3/8, after which the time signatures vary to the end.

16 For example, the first five pages are in 3/8.


19 Feldman (2000a): 140. The composition Why Patterns? also points to this terminology.

20 Feldman (2000a): 141. The example reproduced in the essay is the first six bars of Example 3a here.


22 Feldman (2003c): 182. Page 165 reproduces a drawing Feldman made illustrating this point, with letter names A to F shown first in alphabetical order, then transformed to B, F, A, E, C, D. Note that example illustrates a number of symmetrical rotations rather than retrograde.

23 On p.27, first system (2 bars: 5/2 and 7/4); p.28, first system (2 bars: 7/8 and 14/16); p.33, second system (7/4, 5/2, 9/8, 2/2). After the instance shown in Example 3, a version of the phrase occurs one more time, on p.44, fourth system, (3 bars: 5/2, 9/8, 2/2). Note the durational ‘crippled’ symmetry in terms of the sequential number of bars of these occurrences, the opening and closing instances being two or three bars long, the inner ones four bars long (2, 2, 4, 4, 3).
Retrograde (R) and rotation (r) as defined in Morris (1991): 98

Johnson (2000): 235–240 discusses a similar rotational strategy evident in the piano part of Why Patterns?, and relates this to similar techniques found in some of Jasper Johns’ so-called crosshatch drawings. This is arguably the most convincing work done to date that concretely and measurably relates a correspondence between Feldman’s musical techniques and those employed by a visual artist. It is a moot point as to whether or not the convincing nature of this research is a function the demonstrability of the correspondence.


The only other example of this material in the piece that differs with respect to dyad arrangement, is that on p.28, where the same octachord pitch material is distributed also symmetrically, but in the following fashion: F-natural to C-natural ascending chromatically, the dyads go to Vln I, Vc, Vla, Vln II – the symmetry here is the violins at either end, surrounding the dyads of the lower instruments. This distribution forms and is articulated as double-stopped major 7th, registrally distributed bottom to top in the standard notated order Vc, Vla, Vln II, Vln I.

Vigeland (1992b).


Feldman (2000a): 143

See for example, Hanninen(2004): 247.


Thus the default settings in current music notation software usually ‘reflows’ the spacing and number of bars per system and page of music as it is inputted, as is the case for example in Finale 2004 and Sibelius 3.

Personal correspondence.


**Bibliography**


‘Purification by Fire’:

The Commissioned Works of the Scottish International Piano Competition

Stephen Broad

The Scottish International Piano Competition (SIPC) was founded in 1986 as the Scottish Piano Competition, with 25 ‘young pianists with Scottish connections embarking on concert careers’. In the twenty years and five further competitions that have followed, the competition has gradually grown in scope and ambition, opening to European competitors in 1990 and to the rest of the world in 1993. By the most recent competition in 2004, 38 pianists from 5 continents were taking part in what had become a major international competition, sponsored by Yamaha and Blüthner and affiliated to the World Federation of International Music Competitions.

One aspect of the competition has remained unchanged since the competition’s inception – the compulsory performance of a new work. In the first competition, the work chosen by the organisers was a recently composed Sonata by Martin Dalby, then head of music at BBC Scotland. Since 1990, however, the SIPC organisers have commissioned a new work for each competition from a Scottish composer.

Of course, the SIPC is by no means alone in requiring the performance of a new or specially-commissioned work – many of the world’s piano competitions (such as the Van Cliburn and Queen Elisabeth of Belgium competitions) do so, and there is also the long tradition of soli de concours composed for conservatory competitions. But as a case study, the commissioned works of the SIPC present the opportunity to explore some facets of the ‘compulsory test piece’. Here, I will consider the rationale for new music being a component of the competition, look briefly at the music that has been written for the SIPC and consider some characteristics the commissions share. Finally, I will look at some of the implications of the inclusion of new music in the competitive process of a piano competition.

<table>
<thead>
<tr>
<th>Year</th>
<th>Composer</th>
<th>Title</th>
<th>Publication details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>Graham Hair</td>
<td>Wild Cherries and Honeycomb (from: Twelve Transcendental Concert Studies on Themes from the Australian Poets)</td>
<td>Canberra, Aust: Southern Voices, 2007</td>
</tr>
<tr>
<td>2001</td>
<td>John McCabe</td>
<td>Evening Harmonies (Study No. 7 – Hommage à Dukas)</td>
<td>London: Novello, 2001</td>
</tr>
<tr>
<td>2004</td>
<td>Edward Harper</td>
<td>Ballad</td>
<td>Glasgow: Scottish Music Centre, 2004</td>
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</tbody>
</table>

Table 1: The Commissions of the Scottish International Piano Competition

The form of the SIPC is largely typical of international piano competitions: competitors apply for entry to the competition by submitting recordings and testimonies. These are sifted by the judges, and between 30 and 40 are chosen to take part: these
competitors are then sent the commissioned work, about eight weeks before the competition commences. The competition itself involves three stages: the first two are solo recitals, the third, a concerto final. The repertoire for the first round is restricted to certain composers – and all competitors must play either J. S. Bach or Domenico Scarlatti, and either Mozart or Chopin. A maximum of 12 competitors are admitted to the second round, and it is at this stage that the commissioned work is performed, with an otherwise free choice of repertoire in a programme of at most 55 minutes. Four competitors are admitted to the concerto final, and, in accordance with World Federation of International Music Competitions rules, prizes are subsequently awarded on the basis of all performances. The exception to this is a special prize awarded for the performance of the commissioned work.5

The purpose of the commissioned work is twofold: to enrich the contemporary literature; and to challenge the contestant to acquire and shape music he has never heard played.6

Joseph Horowitz’s rationale for the commissioned piece in the Van Cliburn competition is equally relevant to the SIPC, but it should be seen in the light of the SIPC committee’s explicit support for musical life in Scotland.

The Scottish pianist Frederic Lamond (1868 – 1948), who was one of Liszt’s last pupils, takes pride of place in SIPC brochures, and the first prize carries with it the Frederic Lamond Gold Medal. The competition literature across the span of the six competitions makes clear the organisers’ belief that the competition should support and celebrate the musical life of Scotland – encouraging Scottish musicians (as explicitly expressed in the first competition, and now carried on in masterclasses for young Scots, which accompany the main competition); bringing international performers to Scotland; and providing inspiring listening for audiences, both during the competition itself and in a raft of pre-arranged engagements in Scotland that await the prize-winners.

The competition brochures of the SIPC give little away as to the rationale for the inclusion of a specially commissioned work, but it is clear that it is, in part, an outlet for the competition committee’s desire to support Scotland’s musical life. Since the popular audience for the competition is likely to be larger – and perhaps more widely distributed – than new Scottish piano music might usually command, the commissioned work promotes new Scottish music through its high profile, and also reinforces the ‘Scottishness’ of the competition.7

The second part of Horowitz’s comment on the Van Cliburn commissioned work is also apposite. The commission creates a single point of musical reference that each competitor will encounter, allowing them to be judged ‘like for like’ in their performance of music that comes to them without an established performance tradition. To some extent, the challenge posed to the performer is clear – they must prepare a convincing performance of a work for which they have no reference points except their own musicianship, experience as a pianist and the score. A panel that includes the composer will judge the interpretation they give, and it will be judged against the interpretations given of the same piece by the other competitors. The commissioned work also poses a secondary test of all-round musicianship for the semi-finalists: the rest of the repertoire for Stage 2 is a free choice for participants, and so the commissioned work must be situated within a wider programme – the design of which may be used as a basis of judgments by the jury.8

The composer, too, is set something of a challenge in the commission. The brief given in 2004 stipulated a range of criteria that shaped the commission:

...
The Commission

| “The piece should be of a character reflecting the composer’s own style and repertoire” |
| “The piece should explore areas which are as demanding intellectually and emotionally as they are technically.” |
| “The piece should be technically pitched at a performer who is capable of virtuosity and flare, but should also require reflective and emotive interpretation.” |

Table 2: Selected criteria from the 2004 SIPC commission

As we might expect, the composers’ responses to the challenge of writing ‘the compulsory work’ have been varied, but they also share certain characteristics. A detailed analysis of each work is out of the question in an article like this, but it is nonetheless useful to get a sense of each composer’s approach. I will focus here on the most overtly pianistic elements of each work; compare them with each other, and to some works from the piano canon. (I will omit in this discussion Martin Dalby’s Sonata, which, although it was used in the first competition, was not in itself commissioned by the SIPC, and also Rory Boyle’s excellent ‘audience-piece’, commissioned by the 2004 competition as a focus for the young Scottish pianists taking part the accompanying masterclass series.)

Ronald Stevenson’s work for the 1990 competition – the first of the SIPC commissions for the first truly international competition – was Beltane Bonfire, an effervescent work that according to the composer relates ‘by analogy’ to the Scottish spring festival of the Beltane – ‘a druidic act of sun-worship on May Day, when the sun and buds burst and winter is banished’.

Beltane’s symbology is purification by fire. (There’s also trial-by-fire in The Magic Flute, you’ll remember.) It’s also a token of the interdependency of people, creatures, nature – in a word, ecology.

Stevenson’s note on the work (from which I have drawn the title of this article) elegantly ties together a range of images that we might associate with the competition itself – Scottishness, or at least ‘Celticness’, by evoking a specifically Celtic festival; the idea of festivity itself; trial (perhaps dangerous trial?); and the notion of ‘interdependence’ (an idea that is reflected in any competition since winner’s position is derived from her position with respect to each other competitor). Stevenson’s note also mentions the more mischief image of the ‘May Queen’, the Queen-for-a-day who is ‘crowned in hawthorn’ during the Beltane – perhaps a sideways comment on the nature of the coronation that awaits the winner?

The music is exuberant – at the composer’s insistence, in fact, since he gives the work the indication Allegro esuberante. Stevenson’s distinguished career as a pianist-composer – and his authoritative knowledge of Busoni – ensure that the piece is crammed with gestures from the traditions of piano writing. Liszt and Busoni, to be sure (especially in the filigree from m. 15 that Stevenson marks guizzando (flickering) and in the glistening accompaniment to the theme from m. 33, see Figure 1), but also possibly Bartók or Messiaen in the opening bars and their climactic recurrence at m.98.
'A pianists' piece, straight from the virtuoso tradition', is how one 1990 competitor, John Thwaites, recalls it, 'many of the textures are 19th-century, as is the Lisztian manner of ongoing variation, presenting principal themes in differing pianistic garb.'

Robert Crawford's *Sonata Breve: Homage to Domenico Scarlatti*, commissioned for the 1992 competition, is music composed of great contrasts. 'A very good piece indeed. Concise in its material but with textural variety', was the verdict of fellow-composer Janet Beat in reviewing the second round of the 1992 competition. Bell-like *pesante* passages and hand-over-hand *martellato* are interspersed with *sospirando* scallic and arpeggiated figures. The delicate passagework and staccatissimo section recall Judith Weir's *The Art of Touching the Keyboard* (1983), but, in contrast with Weir's relatively economical approach to notation, Crawford describes and notates his music with extreme detail. The writing is lighter and more transparent in some respects than Stevenson's, in keeping with the work's dedication in homage to Domenico Scarlatti, and there is considerable (and crucial) use of the third (*sostenuto*) pedal. In a brief but insightful comment, Michael Tumelty, the distinguished critic of Glasgow's *Herald*, suggested that the combination of clarity and detail in Crawford's piece was proving a challenge to competitors: 'A deceptively simple little piece which is finding some of them out. (Follow the instructions.)'

Frank Spedding's *Capriccio: In memoriam Lawrence Glover*, which was the commission for the 1995 competition, shares some characteristics with Crawford's piece – in particular, the contrasting sections of *cantando* melody and vigorous *martellato*. Spedding's *Capriccio* is sparer, though, and where Crawford creates 'washes' of sound with his combinations of passagework and precise pedalling, Spedding is more concerned with working through his melodic material. In its textures and harmonic language, it shares something with the piano music of Alan Rawsthorne.

The 1998 commission, *Wild Cherries and Honeycomb* by Graham Hair is a gloriously *déboussonné* étude, and possibly the most technically challenging of the pieces written for the SIPC. The title is drawn from *The Poor, Poor Country*, a poem by the Australian poet John Shaw Neilson, written in 1927:
My riches all went into dreams that never yet came home,
They touched upon the wild cherries and the slabs of honeycomb;
They were not of the desolate brood that men can sell or buy:
Down in that poor country no pauper was I.18

*Wild Cherries and Honeycomb* moves in a seamless stream of sixteenth notes through a series of shorter sections that each have their own distinct character: I. Presto, *ma non troppo pesante*; II. Giocoso; III. *Fluido e lirico*; IV. *Con fuoco, ma non troppo pesante*; V. *Tempestoso*; VI. *Brillante, con slancio*; VII. (*secco e leggiero*); VIII. *Molto energetico e con fuoco, ma non troppo pesante*; IX. (*con poco pedale*); CODA (*sospirando*). In addition to coping with the considerable technical challenges presented throughout, the performer also has the problem of dealing with many subtly modulated turns of mood. Hair gives detailed performance indications – especially of dynamic and articulation – though he restricts himself mainly to notations that describe the music, rather than the technical aspects of performance (there is very little pedalling marked, for example – only when it is absolutely necessary to point up a moment's pedal amongst otherwise *secco* passagework).

In conversation with the author, Graham Hair informally compared the piece with Ravel's *Jeu d'eau* – and certainly the aural connection with Ravel is unmistakable, whether it is with *Jeu d'eau* or with works like *Gaspard de la Nuit* (whose *Scarbo* is briefly alluded to in the eighth section, see: Figure 2 and Figure 3).

A small shadow of *Scarbo* may also be perceived in the commission for the 2001 competition: *Evening Harmonies (Study No. 7 – Hommage à Dukas)*, by John McCabe, whose first notes create a minor ninth in the bass that is reminiscent of the striking rising semi-tone that opens Ravel's piece.19 What follows is quite different, however. In his note, McCabe explains:
The music particularly exploits several kinds of pianistic sensibility and pays tribute to two composers whose music means a great deal to me.

One is Liszt, obviously – the title comes from one of the finest of his Études d’exécution transcendante, the lovely Harmonies du soir, from which I have almost borrowed a couple of musical gestures and one tempo marking (as well as the overall shape, though worked out very differently). The other is Dukas, hence the acknowledgement in the subtitles – in particular, his beautiful Prélude élagiaque for piano, his Poème danse for orchestra, La Péri, perhaps above all his masterly opera Ariane et Barbebleu [sic], are a constant source of inspiration.

McCabe’s borrowed tempo indication is Più lento con intimo sentimento, and he also borrows the corresponding texture from Liszt at this point too – a monody against which are set dry grappeti-like spread staccato chords (see Figure 4 and Figure 5).

Other Liszt influences are found in the opening gesture (in which McCabe expands Liszt’s octaves into a minor 9th) and the rapidly repeated notes. Though the harmonic language is different, there are also hints in the dazzling ‘bell-like’ chords of Messiaen’s piano writing – perhaps related to Messiaen and McCabe’s shared love of Ariane, filtered through the sonorities of the piano?

‘Bell-like’ is McCabe’s own indication in the score – a further borrowing from Liszt, who used the expression in an early version of his Harmonies du soir. The connection with Dukas is a little more difficult to pin down, and despite the fireworks of the central section, this seems like the most contemplative of the commissions, with the sense of narrative generated through the carefully controlled thematic and textural transformations. The piece ends with a simple but effective use of sympathetic resonance, upon which is laid a fleeting echo of earlier music.

Edward Harper’s Ballad of 2004 draws on material that Harper had used the previous year in work for orchestra, organ and school choirs: The Voice of a City.
The material of the piano piece is taken from the fourth movement, a setting of a sad evocation of unrequited affection which I found in an anthology of poems by Edinburgh school children. The most recent of the SIPC commissions, it begins with a simple and delicate *moderato* introduction of sustained repeated chords, before launching into a vigorous toccatta-like central section, the texture of which builds gradually to a long *fortissimo* passage marked *con tutta forza*. Harper uses alternating and strongly accented groups of two and three quavers in this central section to striking effect. The final part of the *Ballad* is slower and more lyrical, with a chorale-like element set off with other lines that contrast texturally (at first, *poco agitato* staccato chords against sustained chorale chords, making use of the sostenuto pedal; later a rippling accompaniment marked *molto delicato*). Like McCabe's *Evening Harmonies*, the *Ballad* ends with a use of sympathetic resonance, though Harper's use of this technique is given greater development—the silently held notes change and different resonances are drawn out one-by-one by the other notes that are played.

When these commissions are considered together, it is remarkable how the open brief provided by the SIPC has, in fact, brought forth a set of piano pieces that share many points of contact. Chief among these are the response to the brief, and the ways in which the composers have chosen to notate their music, as well as the approach to texture and the related issue of the composers’ references to historical antecedents. I should like to look briefly at each of these aspects in turn.

The brief requests that ‘the piece should be technically pitched at a performer who is capable of virtuosity and flare, but should also require reflective and emotive interpretation’. This is an intriguingly ambiguous remit – at once reminding the composer that the performer will be of the highest technical proficiency, whilst shying away from explicitly requesting virtuosic music (‘capable of virtuosity and flare’) and emphasising instead other aspects of interpretation. Most of the composers have nevertheless responded with music that is clearly virtuosic or contains extended virtuosic passages – even the most straightforward of the commissions (probably Frank Spedding’s *Capriccio*) is a fairly demanding piece. At the risk of oversimplification, the commissions may be split into two broad camps – those that are unremittingly ‘technical’ and whose musical challenges are integrated within the technical work (Stevenson, Crawford, Hair); and those in which the music turns alternately from (roughly) musical challenges in a ‘simple’ technical context to technical challenges in a more straightforward musical context (Spedding, Harper, McCabe).

None of the composers has explored the possibility of a whole work of demandingly ‘simple’ music (music whose demands are similar to those of the Mozart or Scarlatti that is required in other stages of the competition). Perhaps this is because of ambiguity of the remit; alternatively, the SIPC composers may have considered virtuosic music to be more interesting compositionally (one might imagine that the commission presents an unmissable opportunity for composers to go to town in their piano writing, in the knowledge that the performers – especially those who reach the second round – will have a very high level of technical skill). Whatever the reason, it is clear that the SIPC commissions are all virtuosic music that, in this sense at least, fall squarely within the tradition of *soli de concours*.

The notation decisions made by the six SIPC composers are also worth examining. The most striking aspect of the notation is that, in general, the pieces are notated with great precision – each composer gives copious directions to the performers and even in the most sparsely notated work (Frank Spedding’s *Capriccio*), there is a range of performance indications underlining the unfolding character of the music: *scorrevoile, ben articolato* (m. 1); *scherzando* (m. 12); *cantando, nervoso* (m. 17) etc.

This may simply reflect a shared aesthetic orientation amongst the SIPC composers, but once again (and with the same caveats as to oversimplification), it is possible to discern across the commissions two flavours of notation, the use of which might, I suggest, affect how performers approach the challenge of performing the new work. The first of these is the notation of what might be called ‘the music itself’ – that is to say, the description of the composer’s conception of the music: articulations and inflexions, ‘character’ indications, and pointers to the *cantilena* or
hauptstimme. In addition to these representations of ‘the music itself’, there are also indications from the composer of how, in mechanical terms, it should be approached. Naturally, these two are closely related (some will consider the distinction spurious), but distinct approaches can, I think, be perceived among the SIPC composers.

The notation of pedaling gives the best case-in-point (though fingering, and elements of phrasing and articulation could also provide examples). Some – such as John McCabe – have restricted themselves to only the most essential pedal indications. One gets the impression from the sparse pedal indications in McCabe’s score that these are there for clarity in ambiguous cases, and that pedaling elsewhere would be entirely permissible depending on the effect created. At the other end of the spectrum is Robert Crawford, whose pedal notations are so precise that they suggest no room for decision making on the part of the performer (of the first 60 measures in Crawford’s Sonata Breve, only one contains no pedal mark – and the performance notes explain in detail the largely conventional or intuitive notation that he uses). Most composers take an approach that falls between these two extremes – such as Stevenson, who notates the pedaling of a crucial passage (mm. 86-92) in detail, whilst trusting to the musicianship of the performer elsewhere, with general indications like con pedale. Hair’s approach is similar, with key moments notated, and others left to the performer, with the encouragement con pedale.

There is a certain irony that, in an element of the competition designed (at least in part) to reveal the performer’s autonomy as an interpreter, such detailed specification is given by some of the composers – but of course this is part of the challenge to the performers. The danger that lurks behind the foliage of detail in the commissioned work is that, with limited time available to them, the unwary performer will privilege slavish production of every notated nuance at the expense of cultivating and refining their own insights. Of course, the best will transcend this problem, no matter the detail – but it is another aspect of the challenge that the compulsory work presents.

A wide range of pianistic textures is explored in the commissions of the SIPC, but several distinctive textural ideas recur across the pieces. While it would be simplistic to assume that the given Italian indications can be a surrogate for the sorts of subtle textures that the SIPC composers have conjured up in their music, the recurring use of certain expression is nonetheless notable. Sospirando, for example (used by Crawford and Hair; McCabe uses the related Murmurando); Lontano (McCabe and Spedding); Secco (Harper and Hair); Nervoso (Harper and Spedding); Martellato (Spedding and Crawford); and Pesante (Hair, Crawford and McCabe). Likewise, Harper, Crawford, Stevenson and McCabe all stipulate the use of sostenuto pedal, facilitating the distinctive textures created by the separation of lines that this pedal allows (Hair offers opportunities for its use, too, though he doesn’t require it). However, each stipulated use of the sostenuto pedal is more or less conventional – to sustain a bass pedal note or large chord whilst another line is separately given out. This line might be contrastingly secco (the stock-in-trade of the sostenuto pedal) or merely requiring clarity that would be destroyed if the sustain pedestal were to be used.

There is, I would suggest, quite a clear textural ‘repertoire’ across the SIPC commissions that, while effectively deployed in the individual pieces, creating drama and contrasts, is nonetheless quite clearly bounded by convention. Texture is clearly pre-eminent among the compositional considerations in these works, and all the composers have made contrasts or modulations of texture a crucial feature of their music. In general, however, these variations fall within well-established traditions of piano
writing, be they Lisztian bravura, the whisperings of Ravel or the martellati of Bartók or Messiaen.

This leads on to the final point of contact between the commissions that I should like to mention here: their tendency to refer (either overtly or implicitly) to music in the pianistic tradition. Many of these references have been mentioned above, but it is worth reviewing them: the connections between Ronald Stevenson’s Beltane Bonfire and the music of Liszt and Busoni; Robert Crawford’s Sonata Breve being subtitled a ‘hommage to Domenico Scarlatti’; Graham Hair’s reference to Ravel connection with his Wild Cherries and Honeycomb; John McCabe’s overt references to Liszt and his dedication to Dukas in Evening Harmonies. Each reference is to a major plank of the pianist’s repertoire and I would go so far as to propose that these works are united by a conscious decision on the part of their composers to situate them primarily within the history and traditions of piano performance, as distinct from any traditions of composition. (Identifying this trend in the course of the research for this article affected my own response to these works – I moved away from considering them in more or less structural terms towards an approach that prioritised pianistic matters.) This approach might be criticised by some as conservative or reactionary, but I propose that it is these very points of contact with canonical piano works (through textural and gestural references, for example) that make the commissions an integral and convincing part of the competition. The composer joins the performer in the extending and enacting the traditions of the virtuoso.

Tumelty’s critical reaction to performances of Crawford’s Sonata Breve has already been mentioned. The same critic’s comments on the performances of some of the other commissions are possibly even more telling, particularly his reviews of the second rounds of the 1995 and 1998 competitions, which suggest that the commissions for these years produced highly divergent performances. Spedding’s Capriccio ‘brought a bewildering range of interpretations’, whilst Hair’s Wild Cherries and Honeycomb apparently ‘produced an astonishing variety of interpretations’.

Tumelty points to an interesting question about performance traditions in the piano canon, and the role of the commission in the SIPC and other piano competitions. If the SIPC commissions, specially-commissioned precisely so that they have no performance tradition, produce ‘bewildering’ or ‘astonishing’ divergences of interpretation (and this despite the detailed notation), then presumably the other works performed in the same round (usually relatively standard repertoire) are much more convergent in terms of interpretation. Most probably, the competitors’ performances of the repertoire are highly conditioned by established performance traditions.

On the one hand, the commissioned work could be seen as a vital instrument for revealing the competitor’s ability to build their interpretation ‘from the ground up’ – Horowitz’s rationale for the inclusion of a new work in the Van Cliburn competition. From this perspective, the commission would seem to have an important role to play by allowing discrimination between competitors by supposedly revealing their musical autonomy. The notion of a hermetically personal interpretation is highlighted in some other competitions, such as the Queen Elisabeth of Belgium Competition, where competitors learn the new work in a week of enforced isolation at a venue supplied by the competition. A word-that-dare-not-speak-its-name – ‘authenticity’ – springs to mind here, both in the sense that this is supposedly an unmediated response (unmediated, that is, by a long procession of teachers, by countless other performers, by a crushing weight of performance tradition), but also in the related notion of ‘authorship’ and ‘authority’: competitors’ performances of a new work, whether successful or not, are entirely their own – they make what they can of the music. In some key respects, we might expect success in the commissioned work to be a vital test of musicianship.

On the other hand, we might ask how much, in reality, the successful performance of the new work is a determinant of competition success? Is it possible that the finer points of divergence in the canonical repertoire are more important in competition terms than the apparently large variations in the performances of the commissioned works?

Eileen Cline gives an insight into some of these questions in her comments on the position of contemporary music in piano competitions (but note her first clause, which I have italicized):
Except [...] in the case of works commissioned especially for a given competition, contemporary repertoire does not seem to function as determinative of performance excellence. When the judges make choices from the repertoire lists, contemporary compositions often are left until last, little is heard of them, or they are not asked for at all. It may be that the judges usually chosen, who often are veterans of the standard-repertoire era, are not comfortable with newer idioms. In a number of the competitions observed, the performance of contemporary compositions was greeted by the jury with much whispering of the nature of ‘Have you heard this before?’ and ‘What do you think of this piece?’ This is likely to be accompanied by much rustling of papers as jurors try to follow the score, and sometimes with falling asleep.

There seems to be some kind of contradiction here. Cline claims that, from her observations, contemporary music in general is not regarded as a litmus test of ‘performance excellence’. Elsewhere, however, she notes the prevalence of some kind of set contemporary repertoire or new work in piano competitions – and clearly they are there for a reason. The implication must be that a commissioned work is apparently more useful in the competitive process than a competitor-selected contemporary work.

In the SIPC, the composer is available to act as a reference – he has been a member of the jury. Naturally, jury discussions are subject to the confidentiality of Chatham-house rules, but it would be fascinating to know the position of the composer as arbiter of the competitors’ interpretations. Are they judged against the composer’s conception (or conceptions) of the piece, or do the jury reach a majority view on who ‘makes the best of’ the music, whether it happens to be what the composer has in mind or not? Of course, the judges themselves have had ample time to reach their own understanding of the commission, so there need be no consensus. In fact, there is an irony that while the commission seems to offer a chance to judge competitors ‘like-for-like’, commission performances will probably be assessed on very different terms from the performance of other repertoire. Cline’s comments suggest that the presence of the composer, or the panel’s familiarity with the set work, put it in an entirely different position from other contemporary music.

The presence of the composer on the panel provokes an array of questions as to its judgments on the performances, but, happily, there has been considerable consistency in the case of the SIPC. The prize given for the best performance of the new work is very frequently awarded to a high-ranking prizewinner (see Table 3), suggesting that, in the SIPC at least, there is no great tension between the new work’s test of musical autonomy and the other rigours of the competition.

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Prize</th>
<th>2nd Prize</th>
<th>Commissioned work prize</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>Graeme McNaught</td>
<td>Susan Tomes</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>Daniel Wiesner</td>
<td>Balazs Szokolay</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>Sergei Babayan</td>
<td>Michael Injae Kim</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>Giampaolo Stuani</td>
<td>Charles Owen</td>
<td>Charles Owen</td>
</tr>
<tr>
<td>1998</td>
<td>Alexander Kobrin</td>
<td>Katya Apekisheva &amp; Alexander Taylor</td>
<td>Alexander Taylor</td>
</tr>
<tr>
<td>2001</td>
<td>Chenyin Li</td>
<td>Marina Nadiradze</td>
<td>Marina Nadiradze</td>
</tr>
<tr>
<td>2004</td>
<td>Tanya Gabrielian</td>
<td></td>
<td>Danny Driver</td>
</tr>
</tbody>
</table>

Table 3: SIPC Prizewinners

The Scottish International Piano Competition has now added six significant works by Scottish composers to the repertoires of many internationally successful young pianists. The commissions of the SIPC are diverse examples of technically and musically challenging piano pieces that both refer to and are a part of the tradition of virtuoso piano writing. They make stringent demands on the performer, but, I have suggested, are made meaningful in the context of a piano competition
by virtue of the way they take the canonical piano literature as their starting point. They have played a vital role in the deliberations of SIPC juries through six international competitions – and have been part of each finalist’s ‘purification by fire’.

Endnotes

1 Scottish Piano Competition: 8th-13th September 1986 [competition programme] (Glasgow, 1986), frontispiece. [Item in the possession of Mr Robin Barr]. I am very grateful to Robin Barr (Glasgow), who was the principal administrator of the competition for many years and has generously made items from his personal collection available. I am also grateful to Philip Jenkins, the Frederic Lamond Distinguished Professor of Piano at the Royal Scottish Academy of Music and Drama for his insights, to John Thwaites, former SIPC competitor and lecturer in keyboard studies at the RSAMD and to the staffs of the Whittaker Library and the Scottish Music Centre.

2 Scottish International Piano Competition 2004: Competition Brochure (Glasgow, 2004), 20-29. [Item in the possession of Mr Robin Barr].

3 The competition organisers’ implicit definition of a ‘Scottish composer’ is identical with Jamie Syer’s formulation for what constitutes ‘Canadian music’, that is to say a composer working in Scotland or who calls Scotland home.

4 The bibliography for piano competitions and their like is surprisingly small, despite almost endless primary material in the form of popular criticism. Two notable studies are Joseph Horowitz’s The Ivory Trade, an engaging account of the 1989 Van Cliburn competition, and Eileen T Cline’s dissertation on piano competitions, which takes a range of social science approaches to explore various aspects of the piano competition, and was based on a close study of 18 international competitions, many of which she observed in person. See: Joseph Horowitz, The Ivory Trade: Piano Competitions and the Business of Music (Boston MA: Northeastern University Press, 1990); Eileen T’ Cline, Piano Competitions: An Analysis of their Structure, Value, and Educational Implications (Doc. Diss.: Indiana University, 1985).


7 In this regard, it is not unlike the Sydney Piano Competition, which at the time of Cline’s research, required ‘a contemporary piece written since 1950, by an Australian composer or a composer from the contestant’s own country’ or the Moscow Tchaikovsky which then included a compulsory piece by a Soviet composer. See: Eileen T’ Cline, Piano Competitions: An Analysis of their Structure, Value, and Educational Implications (Doc. Diss.: Indiana University, 1985), 624 & 625.


9 Scottish International Piano Competition: Commission for 2004. [MS item in the possession of Mr Robin Barr].


12 John Thwaites, private correspondence with the author (18 Oct 2006).
Robert Crawford (b. 1925). Studied privately with Hans Gal and then at Guildhall School of Music and Drama with Benjamin Frankel. He had early success with two string quartets, and was a BBC music producer from 1970-1985.


Frank Spedding (1929 – 2000) Studied at the Royal College of Music with Bernard Stevens. Twice a winner of the Royal Philharmonic Society’s prize for orchestral composition, he joined the staff of the Royal Scottish Academy of Music and Drama in 1958. Lawrence Glover, a friend and colleague of Frank Spedding, was the much-loved Head of the Piano Department at the Royal Scottish Academy of Music and Drama and a juror at the first Scottish Piano Competition in 1986.

Graham Hair (b. 1943). An Australian-born composer. He studied at the University of Melbourne, then Elder Conservatorium with Maxwell Davies. He worked in universities and music institutions in Australia (Sydney Conservatorium), UK, Europe (IRCAM) and the USA (Princeton) before settling in Scotland in 1990. He is Professor of Music at the University of Glasgow.


John McCabe (b. 1939). He studied at Manchester University, the Royal Manchester College of Music and Munich Hochschule. He then embarked on a diverse career as pianist and composer, which included seven years as Principal of the London College of Music. He has been prolific and diverse in his output.

John McCabe, ‘Composer’s Note’, Evening Harmonies (Study No. 7 – Hommage à Dukas) for Piano (London: Novello, 2001), [n.p.].


For Messiaen’s love of Ariane et Barbe-bleue, see: Olivier Messiaen, ‘Ariane et Barbe-bleue de Paul Dukas’, La Revue musicale, 166 (1936), 79-86.


Scottish International Piano Competition: Commission for 2004. [MS item in the possession of Mr Robin Barr]. My italics.

In his written indications, Hair gives the impression of fraternal collaboration – his exclamation marks (‘secco!’), clear flagging of the hauptstimme, and written-in confirmation of notes with many leger lines give a clear sense of what is required, while avoiding the almost dictatorial effect of Crawford’s approach.


Eileen T Cline, Piano Competitions: An Analysis of their Structure, Value, and Educational Implications (Doc. Diss.: Indiana University, 1985), 470. My emphasis.
Non-Linear Temporal Constructs and the Loss of Self in Edgard Varese’s Octandre, Jackson Pollock’s Lavender Mist, and Robert Penn Warren’s Being Here

Bruce Mahin

Abstract
Prior studies in art, music and poetry have explored the use and meaning of non-linear time, some of which also examine the loss of ‘self’ as a corollary to the disruption of continuous time constructs. Kaelin (1988), Warren (1990), Jackson (1988) and others, focus on the role of the ‘self’ in modernist poetry which uses what Warren calls ‘freeze time’ or the ‘frozen moment.’ Altieri (1989), and Crozier (1984) explore general relationships between modernist art and poetry without touching specifically on the element of time. Kramer (1988) explores the ways in which time functions in music and defines three temporal modes which exist along the continuum between goal-directed linear time, on one hand, and non-linear (vertical) time on the other. Kramer and Neytcheva (2001) also offer analyses of musical works as examples of ways in which these modes may be articulated. Morgan (1977) provides especially insightful revelations into the minimalization of time in the work of composer Charles Ives. Yet, no one has explored parallels which exist with regard to the use of time in all three (art, music, poetry) disciplines. For example, Jackson’s thorough understanding of the changed relationship between the poet and ‘the other self’ found in non-linear poetry can assist us in our understanding of music which exists in multiply-directed time (Kramer 1988) and also in our interpretation of abstract art which provides no obvious framework for the definition of time and space. This article will focus on parallels which exist between works by Jackson Pollock, Edgard Varese and Robert Penn Warren in order to demonstrate that similarities in these disparate art forms, once realized, can assist in the interpretation and understanding of works by other modernist and post-modern artists.

The sound of water flowing is

An image of Time, and therefore
Truth is all and
Must be respected, and
On the other side of the mirror into which
At morning, you will stare, History
Gathers, condenses, crouches, breathes, waits. History
Stares forth at you through the eyes which
You think are the reflections of
Your own eyes in the mirror.
Ah, Monsieur du Mirror!

Your whole position must be reconsidered.

– Robert Penn Warren, Tale of Time

Time and the Awareness of ‘Self’
The awareness of time helps define our existence as human beings. Recent studies in the cognitive sciences support the notion that because human beings function within a well-defined timescape, our perception of reality and relationship to objects in that reality is largely defined by the measure of time (past, present, future). Creative works existing outside ‘the three extases of time’ become encapsulated into the here and now, causing ‘a new understanding of self’ or a ‘presencing’ on the part of the observer. In this case, the interpreter of a non-linear work constructs an awareness of the work based on a personal view of reality rather than one grounded within predominate cultural or social boundaries. Works which exhibit a linear depiction of time more closely resemble the patterns found in life. It follows that the ability to comprehend and respond to a work of artistic expression must then depend largely on the capacity for determining a frame of reference for the passage of time.
Modernist work, by definition, often disassociates itself with works of the past and accordingly the notion of a shared tradition between creator and viewer. The absence of a shared tradition puts into question the existence of the past as an element in the continuum of time, its relationship to the present and the perception of the future. The Modernist's explicit need to make creative work personal and individual cause it to be viewed outside pre-determined historical contexts, thus disorienting the receptor’s sense of past in relation to the present or the future expressed (or not expressed) by the work.

If the identity of 'self' is determined by one's perception of the present, its past and the future, the loss of time in a creative work might then cause a re-evaluation of the 'self'. Because text references are more literal than sounds and abstract visual objects, the poet, more than the artist or the composer, uses the passage of time to create the boundaries of reality found in a poem. It follows that the reader's own existence is thus threatened when the passage of time is denied. The manipulation of time, in a poetic sense, causes one to re-evaluate the place of 'self' in relation to the poetry and to the 'real' world.

This article will begin by examining non-linear time constructs in the poetry of Robert Penn Warren. It will then examine the music of Edgard Varese and the drip paintings of Jackson Pollock in order to demonstrate that, though the non-linear relationships in a musical composition or a painting may be less obvious than those in literature, they are still extremely important to our understanding of the role of 'self' in these art forms. Works by Warren, Varese and Pollock were chosen because each presents clear examples of Modernist principles with regard to the treatment of time. Each work moves through time without a clear depiction of past, present or future, and each defines relationships between elements through a non-linear ordering of events.

In addition, this study will demonstrate that:

a) art, music and poetry which exists in a non-linear time frame requires a different interpretive criteria than works which are conceived with a linear structure,
b) the new perspective found in non-linear work changes the relationship of the observer to the artist,
c) the observer's unique personal awareness and perception of reality (as opposed to a reality shared by others) gains increased importance in the understanding of the expression,
d) the new perspective causes elements in the expression to form a hierarchy of importance which is different from those in works which exist in a linear time perspective), and
e) parallels exist between works of art, music and poetry which can be useful in understanding the new relationship.

Poet Wallace Stevens explored relationships between reality and imagined reality in much of his work. Therefore, a study which focuses on the relationship between non-linear creative work and an observer's perception of reality rightly begins with a brief examination of Stevens' aesthetic. Much of Stevens' poetry constructs a unique reality as seen through the poet's imaginative sense, a process achieved when the poet distances himself from the text, often by disrupting the natural flow of time. The passage of time has little significance for a reality which exists only in the mind:

The subject matter of poetry is not that collection of solid objects extended in space but the life that is lived in the scene that it composes; and so reality is not that external scene but the life that is lived in it. His own measure as a poet, in spite of all the passions of all the lovers of truth, is the measure of a power to abstract himself, and to withdraw with him into his abstraction the reality on which lovers of truth insist. He must be able to abstract himself and also to abstract reality, which he does by placing it in his imagination.

Stevens points to the ability of the poet to construct a reality embedded in the imagination. ‘Abstract’ is the key word in this quote, particularly because it is used as a verb to describe the poet's abstraction from reality. Stevens might have also used the word as a noun to describe something which is non-representational. Both uses of the term are appropriate in the context of this article. Certainly, the works by Warren, Varese and Pollock in the present discussion are examples of abstract expression. But here we are concerned about the ‘act’ of abstraction, the process which occurs when one is confronted by a non-linear representation of time in a creative work which results in the removal of one's self from a pre-conceived reality.
Stevens suggests that the process of abstraction begins with the poet. I will suggest that the process does not end there. Rather, the interpreter of creative work also abstracts himself from perceived reality when confronted by a creative work which fails to represent time in the linear progression perceived in everyday life. A constructivist viewpoint in the cognitive sciences maintains that the perception of reality is the result of an ongoing constructive process. If this is true, I posit that non-linear time constructs require the observer to construct a new reality based on the modulation provided by the stimulus of the creative work. This new reality can be extremely personal and may have no bearing on the original inspiration for the work's creation. The individuality of the response may also help to explain why non-linear works inspire wide ranging interpretations in published literature.

**Non-linearity in Robert Penn Warren’s Safe in Shade**

This article will begin by examining the passage of time in the poetry of Robert Penn Warren, a poet of the generation following Stevens who, in his late works, explored the nature of existence in direct relation to the perception of time. Like philosopher Martin Heidegger, Warren viewed the passage of time as the purveyor of one’s identity, a concept deeply connected with Heidegger’s idea of self-referential ‘presencing’ in which the ‘self’ defines its own history in relation to its past and future, but especially through its relation to the ‘now.’

Numerous works of art, music and poetry created in the 20th-century modernist and post-modern movements are meant to be understood in a perspective outside the boundaries of linear time, something poet Robert Penn Warren calls ‘freeze time’ or the ‘frozen moment’ when referring to the work of William Faulkner. Poems in Warren’s collection Being Here (1977-1980) contain examples of ‘frozen time’ which jumps suddenly, like a startled horse, and runs galloping at full tilt into the future, only to stop at the brink of a timeless nothingness as suddenly as the poem begins.

When viewed as a time continuum, Warren’s description of a soft summer day in the poem Safe in Shade divides into three principle sections. The poem presents an interesting example for study because the time frame in which it exists is outside of the boundaries of a natural existence. Time refuses to behave in expected ways partly due to the absence of any meaningful action, nor dialogue, on the part of the protagonists. Rather, the elements in the prose appear to be frozen, as if in a still frame, waiting with pregnant pause for something vital to happen.

For Warren, time defines existence, the ‘self’. The awareness of one’s predecessors creates a link between those who lived in the past with those who exist in the present, and those who will come in the future. Warren and his characters ponder the meaning of time with a mysticism which permits the past, present, and future to exist simultaneously. Richard Jackson explains that ‘the very structure of ‘links’ and ‘chains,’ which establishes presence in so many of Warren’s poems, also produces gaps between sections where absence opens up.’ This referential structure of presence is most vulnerable when the continuity of the ‘now’ is broken. Warren’s depiction of time is influenced by Faulkner’s technique of the ‘still moment’ as Warren attests in an interview:

That’s the frozen moment. Freeze time. Somewhere, almost in a kind of pun, Faulkner himself uses the image of a frieze for such a moment of frozen action. Some of those moments harden up an event, give it its meaning by holding it fixed. Time fluid versus time fixed - In Faulkner’s work that’s the drone behind the drama. Take a look at Hemingway; there’s no time in Hemingway, there are only moments in themselves, moments of action...Everything is outside of the time process...But in Faulkner...a tremendous flux is there, things flowing away in all directions... You have the sense of the small becoming large in time, the large becoming small, the sweep of time over things. That, and the balance of the frozen, abstracted moment against violent significant action.

In Safe in Shade, the first section (six stanzas) describes a single moment. when a boy sits ‘safe and secure’ in the shadow of the cedar tree in the company of an elder. Two generations sit side by side, one looking at the past, the other trying to make sense of the past by looking into the future. The first stanza describes an old man. The second introduces the narrator as a boy, waiting for the old man to speak. Here the two generations sit motionless together, the boy yearning to know about life,
the old man contemplating its meaning. Through the first six stanzas time appears frozen. Though steeped in description, no action is recorded save the indistinct stirring of the ambience around them in stanza five:

Around us in our shade and hush
Roared summer’s fierce fecundity,
And the sun struck down,
In blare and dazzle, on the myth of the world, but we
Safe in the bourne of distance and shade,
Sat so silent that, from woods coming down
To the whitewashed fence but yards behind me,
I heard the secret murmur and hum
That in earth, on leaf, in air, seethed. Heard
One jay, outraged, scream.
The old blue eyes, they fixed on me."

Stanza six repeats the single sentence from stanza three: ‘I waited for him to speak.’ and adds ‘He spoke.’ Yet the old man doesn’t speak. We learn nothing about the old man for he offers nothing the reader can use which might assist in the development of his character.

The second major section begins at stanza seven which shifts at warp speed into a timeless vortex of unknown, but significant, events in the life of the narrator who reflects on ‘That paradox the world exemplifies’. Time reels forward to the present where, in stanza eight, the narrator takes fleeting time as his subject and he looks to the future.

The final section starts when stanza nine asks simply ‘Where is my cedar tree?’ Stanza ten asks ‘Where is the Truth-oh, unambiguous-Thereof?’ This final stanza leaves the reader hanging somewhere between the present and the future, yet cycles back to the start of the poem with an unanswerable question. We are left unfulfilled in a timeless nether-land, hanging in mid-air like the wisp of smoke rising from the old man’s pipe ‘to thread the cedar bark’.

Non-linearity in the first movement of Octandre by Edgard Varese
Music exists fundamentally within the domain of time; art in less obvious ways. Thus the passage of time is more clearly represented in music than in art or poetry and can be considered one of the most basic elements controlled by the composer in the creation of a musical work. This is affirmed by composer Earle Brown when he states, ‘One should compose as little as possible, because the more one composes the more one gets in the way of time becoming the governing metaphor of music’. Brown’s quote has two parts: the first confirms a detachment between artist and work, and the second expresses the importance time plays in the formation of musical meaning. Here a common theme emerges with the previous discussion of ‘Safe in Shade’ regarding the detachment of narrator (i.e. poet) from the work itself. In music, as in poetry, the detachment of ‘self’, and the increased focus on the Other, results from the temporary suspension of time, an odd attribute for an artistic form (music) so based in the domain of time.

The notion of non-linear vs. linear time in music is particularly complex owing to the interaction of pulse, meter, rhythmic pattern and tempo on the perception of passing time. Indeed, Jonathan Kramer has compiled a list of over 850 publications which discuss the role of time in music. However, as I will demonstrate in this article, the five classifications of time in music defined by Kramer can also be used when drawing parallels between art, music and poetry. These classifications are: goal-directed linear time, multiply-directed time, moment time, non-directed linear time, and vertical time.

This article will focus on the premise that the perceived disruption of linear time in music causes musical themes to be understood equally as objects in their own right as well as parts of a larger whole. Elements (musical themes) in a non-linear, i.e. non-developmental, context establish more complex relationships than in music perceived to progress linearly because
pre-existing assumptions about vertical and horizontal pitch relations, musical intervals, levels of dissonance, rhythmic patterns, timbral and textural changes, do not operate as in works which progress linearly. Relationships are determined anew with each work, unfolding as the work progresses until finally revealed when the work concludes. Edward T. Cone calls this process ‘synthesis’ when referring to the work of Stravinsky. Kramer classifies a piece consisting of multiple linear sections ordered in a manner which does not suggest logical continuity as being in ‘multiply-directed time’. He uses Debussy’s Jeux as an early example of work functioning in this temporal mode, one which set the stage for later works by Stravinsky, Messiaen, and Stockhausen. Multiply-directed time becomes ‘moment’ time when internally static sections appear to be self-contained and do not appear to connect with other sections within the work. Karlheinz Stockhausen describes moment form as one where ‘Every present moment counts, as well as no moment at all; a given moment is not merely regarded as the consequence of the previous one and the prelude to the coming one, but as something individual, independent, and centered in itself, capable of existing on its own.’

The use of non-linear time in the music of Varese may relate to Varese’s awareness of Debussy. Malcolm MacDonald confirms this notion when he traces Varese’s lineage to ‘three of Europe’s leading composers – Debussy, Busoni, and Richard Strauss’. The first movement of Varese’s Octandre, Debussy’s Jeux and Stravinsky’s Symphonies of Wind Instruments all juxtapose sections consisting of contrasting musical material and avoid the use of transitional material. One can find numerous Modernist works which exhibit these characteristics.

Formally, the entire first movement of Octandre can be viewed as an arch comprised of five sections consisting of the initial oboe melody (‘A’ in mm. 1-9) followed by a ‘repeated’ note pattern (‘B’ in mm. 10-18), a center section built around a theme consisting of alternating semitonal clusters ‘C’ in mm. 19-24), a return of the repeated note pattern (‘B’ in mm. 26-29) and a transposed shortened version of the initial oboe solo (‘A’ in mm. 30-32) based on the initial four notes of the piece or a pattern ABCBA.

Typically, the arch form consists of five sections which work toward the middle and then back to the beginning as it moves toward the end of the piece. When the fourth and fifth sections develop material from the first and second sections (ABCB’A’), the arch form could be construed as a linear, developmental form bearing the shape of a Western dramatic curve. The piece under discussion does not present developed material. Rather, section B’ presents material from section B in highly altered form which bears little resemblance to the initial presentation, and section A’ presents material from section A in truncated and transposed form, thus denying the suggestion of true development. More significantly, the reverse ordering of sections after the half-way point suggests time stalling. Thus the arch form can be considered analogous to the poetic ‘frozen moment.’ When a piece avoids a developmental progression of ideas in the second B and A sections, Paul Wilson (1992) sees a unidirectional process in which ‘The large symmetrical design seems initially to create a static framework that denies or constricts the process.’ In his analysis of Bartok’s Fifth Quartet, Wilson continues:

The basic point here is simply that, no matter how much emphasis Bartok (or subsequent commentators on his music) have placed upon the symmetry and balance of the arch form, the musical actuality is a far more evolutionary and directional process than the symmetrical plan alone suggests. Within that evolution the first two movements of the Quartet are originating events, while the last two serve both as transforming memories and as opening to the (uncompleted?) future. One effect of the arch is thus the tension between corresponding similarities and the transforming passage of time. These two movements embody that tension within the larger setting of the Quartet.

Because the first movement of Octandre (1924) is non-developmental, a factor which contributes to its non-linearity, this piece presents the listener ‘not that collection of solid objects extended in space but the life that is lived in the scene that it composes.’ Musical themes do not transform into varied forms, rather they present themselves to the listener in different guises, as though observed from different angles through altering shades of light. They reveal themselves as multi-dimensional objects whose details are observed in no particular order not, as in the bulk of Western literature, as objects which develop in a single dimension from beginning to end.
On a more minute structural level, the first movement of Octandre exhibits elements of linearity and non-linearity within individual sections as well. Despite the angular, wide intervals of the oboe solo and the juxtaposition of sections based on contrasting material, section 'A' exhibits an overall melodic fluidity of the cantabile style which permeates the melodic texture.

Peremptory hints of future events occur rarely, the only obvious instance occurring in mm. 5-6 where the initial clarinet entrance introduces characteristics of the repeated-note motif on which the second section is built.

While the movement consists of three principal themes, the ingredients for the entire piece can be found in the initial oboe solo. The inter-connectedness of pitch materials in the piece, stemming from the creation of secondary and tertiary themes drawn from the primary theme, might normally suggest a developmental structure. However, for this to be the case, the relationship between the three themes would have to be clear to the listener. I will maintain that connections between the melodic materials is difficult to discern even after repeated listening. First, the initial theme defies traditional concepts of melodic voice leading by skipping back and forth in wide leaps of major sevenths and minor ninths. The oboe solo in the first four measures uses ten of the 12 notes in the chromatic scale.

In measures eight and nine the oboe repeats the process leaving out two different notes this time. The melody never settles around any single pitch, leaving harmonic implications very ambiguous. Intervals found in the first four notes: major ninth - major seventh - semitone predominate in the oboe solo. While these intervals are repeated several times, they are stark and unusual intervals for an audience versed in tonal music and hardly memorable from a melodic point of view.
Fig. 3 Octandre, Mvt. 1, mm. 10-18
Quite the opposite, the repeated note pattern of the second theme can hardly be called a melody at all, as it is based on single pitches repeated many times (oboe in m. 13-15) or held over long periods (bassoon in m. 13-15, 16-17). See Figure 3.

The sustained, repeated note motif bears little resemblance to the initial theme except that the tail of the first theme always ends on a note of longer duration than the preceding notes. The third theme (mm. 19-24) embodies the melodic ninths and sevenths found in the initial theme in two ways. First, the vertical sonorities (chords) in mm. 19-24 are based on semitones which are inversionally related to the major sevenths and minor ninths of the first theme. See Figure 4.

Second, chordal successions are also based on semitonal (sometimes inverted) relationships, overtly as in mm. 22 and 24 and, perhaps less so, in mm. 19-21 and m. 23. See Figure 5 (opposite).

Measure 23 stands as something of an enigma in the piece and possibly provides the clearest example, though not the only example by any means, of structural non-linearity in the work. Here, the trumpet repeats a three-note motif heard only once before as the clarinet entrance in the first interruption of the oboe in measure five. See Figure 6.
Section 'A' does not logically progress to 'B' or to 'C' developmentally but rather sequentially. In other words, 'B' and 'C'
other elements in the movement accomplish the same effect. First, sections are non-developmental with regard to ordering.
Section 'A' does not logically progress to 'B' or to 'C' developmentally but rather sequentially. In other words, 'B' and 'C'

\[ j \]

\[ p \]

\[ r \]

\[ \sum \]

\[ \text{Section 'A' does not logically progress to 'B' or to 'C' developmentally but rather sequentially. In other words, 'B' and 'C'} \]

\[ \text{Other elements in the movement accomplish the same effect. First, sections are non-developmental with regard to ordering. Section 'A' does not logically progress to 'B' or to 'C' developmentally but rather sequentially. In other words, 'B' and 'C'} \]
present new material rather than modifying material heard previously. Then, in the fourth and fifth sections, the ordering of themes reverses itself. ‘A’ ‘B’ ‘C’ becomes ‘C’ ‘B’ ‘A’. See Figure 7 and Figure 8.

Second, the continually changing meter in *Octandre* prevents any sense of hypermeter developing in the piece. Where the
great majority of works written during the common practice period establish a constant, unchanging metrical structure within each movement of a piece, the meter changes constantly in Octandre. The irregularity can, in fact, be observed on many levels. Meter changes 19 times in the 32-measure movement. Metric downbeats are avoided throughout the piece as notes are tied across the bar line. Phrases frequently begin off the beat. Only in the ‘C’ section does Varese compose rhythms highlighting the interplay between downbeat and upbeat. See mm. 19, 21 and 22, then again in m. 24.

Where one might expect rhythmic similarities between the respective ‘B’ sections, only a tenuous connection exists. The most obvious, and sole, rhythmic similarities exist when the first three measures of the oboe are repeated at the end of the piece. See Figure 8.

Overall, the constantly changing rhythms and wide variety of rhythmic patterns in this piece prevents any sense of metrical regularity to develop, effectively removing meter and, to some extent, rhythm from the list of parameters which might help the listener navigate the formal structure of the piece.

Third, timbral successions help to create a formal structure as several patterns recur in the piece and each section presents unique timbral and textural combinations. First, the oboe provides timbral unity in the opening and closing ‘A’ sections. The ‘B’ section presents a rich combination of instrumental colors in no discernible progression. Then, in section ‘C’, the brass trio (mm. 19 and 21) may be heard as a unit in contrast to the woodwind quintet plus contrabass in (mm. 20, 22 and 24).

As might be expected, Varese puts all instruments together (measures 15, 23, 24 and 29) at climactic moments, such as internal cadences and closing sections. For example, section ‘B’ reaches a high point in measure 15 when all eight instruments are heard playing simultaneously. After four measures of alternating brass trio and woodwind quintet measure 23 sets up the climactic moment in section ‘C’ (m. 24) where all eight players finish the large melodic skips.

Were it not for the return of the ‘A’ and ‘B’ material after the ‘C’ section, Octandre might function in ‘moment’ time, a classification attributed to works in which ‘there is nothing in a subsequent section that follows from a potential implication
in an earlier section.” In fact, the ‘B’ section and, especially, the oboe theme at the end of the first movement establish a moment of stability by ‘explicit association,’ repeating an object heard at the beginning of the piece. The oboe theme in ‘A’ effectively frames the materials of the work within the initial and final statements without providing any sense of harmonic resolution. Linearity is achieved within sections, as melodic, rhythmic and timbral materials form unity within sections. However, the ordering of sections does not promote a sense of progressive forward motion, thus a linear connectedness is not evident on this larger formal level. For these reasons, I propose that the first movement of \textit{Octandre} represents multiply-directed time, a condition which exists when implied linearity exists within sections, but sectional ordering avoids larger relationships which might make the piece appear to progress toward a logical resolution in which later sections appear to be related to earlier sections through a natural process of evolution.

\textbf{Non-linearity in the first movement of Lavender Mist by Jackson Pollock}

In the 1950s, Jackson Pollock’s art was heralded at the same time as the originator of a new school of gestural abstraction and the painter who ‘destroyed painting.’ In either case, his work from 1946-52 represents an approach which extended the boundaries of artistic abstraction and so presents the viewer with significant challenges in its interpretation. Pollock’s drip paintings represent the middle stylistic period in the artist’s output which divides the earlier cubist-derived paintings from the later return to dark representational works. The middle period paintings bear several features of relevance to the current topic for they offer little representation of time passing, nor do they place time in a context of past - present - future. Rather, the drip paintings seem to exist in a single active moment, a moment of time stretched beyond the limits of actually perceived time so that individual details of that moment may be examined in a state not replicated in the natural world. Their highly abstract nature suggests an effort by the artist to objectify the expressive content by removing both the artist and any representational content from the depiction.

The drip paintings provide examples of a visual ‘moment’ form. The sprawling canvas of these paintings does not sub-divide into recognizable sections. The presentation gives one the impression of a single perspective in a unified totality. This, combined with the highly abstract nature of the materials, makes the establishment of time and place nearly impossible to comprehend. One may look at the numerous published interpretations of Pollock’s drip paintings to see that no consensus exists regarding the representational context of any one painting.

\textit{Number 1, 1950 (Lavender Mist)} was created from oil, enamel and aluminum on a canvas measuring 87’ X 118’. The representational nature of the title should not be overly emphasized. Most of Pollock’s works from this period, including \textit{Number 1A, 1948} and \textit{One: Number 31, 1950} are very similar to \textit{Lavender Mist} in design but with less colorful titles. Furthermore, Lewison suggests that ‘not too much importance should be attached to Pollock’s titles, since they were mostly suggested to him by other people.” No published account suggests the painter held views on the subject whatsoever. Therefore, it seems reasonable to ignore the suggestive qualities of the title of the work under discussion and to concentrate more closely on the expressive impact of the work alone.

\textit{Number 1, 1950} is sub-divided by numerous asymmetrical black and white lines running diagonally throughout the canvas. These lines appear to be randomly placed but are so numerous as to connect with other similar lines at various junction points, causing the eye to follow one area of the painting into another. As one follows the longer, more visible black lines, the eye encounters brief interruptions in the line caused by shorter, lighter strokes or spherical jabs. Lighter, but still prominent, rounded shapes appear in pink and grey in contrast to the stark black and white lines. Other colors (turquoise, red, brown) appear very seldom as round droplets.

All of the drip paintings exhibit an extremely active surface caused by the sharp juxtaposition of contrasting colors moving in opposing directions. Lines overlap and collide, causing a myriad of structural disruptions which prevent any sense of formal symmetry to develop. The overall effect suggests a single larger structure consisting of thousands of smaller structures of varying shapes and sizes. The eye is directed nowhere and everywhere at once. The overall effect and the intricate details bombard the senses simultaneously without one immediately suggesting primacy over the other. Does one first take in the overall or the minute? Hierarchies of representational painting fail the viewer. The painting draws the viewer into its complex framework without suggesting any strategy for its comprehension or interpretation. All references to past experience
disappear. All references to time cease to exist. The viewer’s sense of ‘self’ is called into question, forcing a response which can be highly personal and individual. In Pollock’s drip paintings the ‘self’ is confronted with a confusing, disarming visual, in part, owing to the disruption of representational time. By understanding the placement of ‘self’ in relation to non-linear expressive work we can gain a greater understanding about the expressive intent of the artist and the work itself.

Figure 9: Jackson Pollock: Number 1, 1950 (Lavender Mist)

The Frozen Moment and the Loss of ‘Self’

It should be clear that the work examined in this article by Warren, Varese and Pollock appears to arrest the natural flow of time. Warren’s poetry makes time appear to stop by creating imagery steeped in frozen images. Varese arrests time through asymmetrical metrical patterns and a non-developmental formal structure. Pollock avoids the representation of time completely. The remainder of this article will show that ‘frozen time’ in a creative work causes the interpreter to lose, to varying degrees, a sense of ‘self’. It will also examine relationships between creative work, creator and viewer.

Warren’s poem, Safe in Shade, offers an example of the gradually emerging ‘Self’ through the ‘Other’ because the narrator balances a detachment in the first section which progressively surrenders itself to a personal identity defined by the question at the end of the poem. Time does not flow linearly or naturally in the poem. The ‘self’ is made clear through its relationship to the narrator only at the end of the work when the accumulative action of the poem moves into the present tense. When the poem ends, the reader knows little about the boy nor the old man who appear at the opening of the poem. Their relationship to the ‘Self’ and the narrator is not clear. Thus the poem causes the reader to focus on the ‘Other’.

Viewed as three main sections, the first section of the poem (stanzas one through six) focuses on the environment. The second section (stanzas seven and eight) depicts the passage of time as the thread of life, and finally the third section poses a personal but unanswerable, almost incomprehensible, question ‘Where is the Truth—oh, unambiguous—//Thereof?’ in stanzas nine and ten. Perhaps the most striking aspect of the poetry, where time is concerned, is the detachment of the narrator from the opening scene and the objective perspective which is used to describe the thread of life in section two. Only in the final two
stanzas does the narrator become a real presence in the poem, attaching himself to the experiences described previously by posing two questions which appear to have import to the narrator and relevance to the previous stanzas. The withholding of the narrator’s ‘self’ results in a focus on the ‘Other’, what Heidegger might call the ‘Outside self’

The poet loses time in the poem and thereby loses the self through his objectivity, the act of distancing himself from any action in the scene by reducing action to the absolute minimum necessary to convey the detail of motion in a natural environment. The lack of action engenders a frozen moment outside of which the narrator steps in order to view it with a detachment that recalls the ‘Other’. Heidegger describes the nature of ‘Being’ as an act (or literally ‘event’) of the appropriation of time-past, present and future. He states, ‘Because Being and time are there only in Appropriating, Appropriating has the peculiar property of bringing man into his own as the being who perceives Being by standing within true time.’

Jackson describes a ‘withholding... manifest in the distance and separation of the narrator’ when describing the making of the self in a poem by James Wright titled ‘Time’:

By focusing on the Other, the bird, the detached narrator gradually builds a relationship, only to discover in the end that he has also been building a self. The narrator gradually approaches himself, including his past self, through the Other. The discontinuity of time is made continuous. The poem, then, ‘balances’ detachment and attachment, self and other, discontinuous and continuous, presence and absence. The sense of the self is invoked from the Other, from the ‘luminous’ language that describes it.

Warren builds the narrator’s ‘self’ in *Safe in Shade* by focusing on the ‘Other’ in the first and second sections but arriving at a ‘self’ in the final section when posing questions to the reader. The withholding in these two sections disrupts the passage of time which is made continuous in the final stanza.

A similar effect is achieved by the oboe solo in *Octandre* when it returns in the final three bars, transposed up by diminished fifth and shortened, but otherwise unchanged since the initial three bars when it was first introduced. In a typical developmental Western composition, this would be called a recapitulation, a restatement of the principal theme before the final cadence. Yet this theme is not ‘developed’ in the Classical sense. A full close is not achieved by the restatement, since the last note ends abruptly without harmonic resolution (the final expected ‘A’ is dropped from the four-note motif at the end). The final statement of the theme is simply a thematic restatement. Morgan comes to a similar conclusion when analyzing the work of Ives: One of Ives’ most pervasive techniques for accomplishing this [harmonic stasis] is to make the motion circular—to make it run back on itself, thereby compromising its sense of forward progression and arrival. ‘The most common form of this is a restatement at the end of a movement of the material that initiated it. In Ives these restatements are nothing more than brief allusions which link the closing with the opening through explicit association’. He cites the first movement of the *Second String Quartet*, the last movement of the *Concord Sonata* and the last movement of the *Fourth Violin Sonata* as examples. When a piece is written in a non-tonal idiom the lack of harmonic resolution normally found in a tonal composition seems a natural consequence of the ‘missing’ tonic. However, the lack of resolution has significant consequences with regard to the formal closure of the piece. As Rosen relates:

The principle of recapitulation as resolution may be considered the most fundamental and radical innovation of sonata style. The germ of this conception may be found in the Baroque binary forms, but the sonata does not, like the binary forms, merely repeat all or part of the exposition now transposed into the tonic. In the sonata there is a reinterpretation of the pattern of the exposition, a transformation of a clearly articulated movement away from stability into the affirmation of a large stable area.

The last sentence of this quotation illustrates the importance, in a linear process, of moving from stability to instability and back to a large stable area. Linear harmonic motion in a typical sonata form, at the phrase level and on larger structural
levels, helps to create varying levels of stability and increases the chances that a thematic restatement may be heard as a linear consequence of a work as it unfolds through time. Octandre does not possess recognizable harmonic motion which might contribute to the awareness of changing levels of stability and instability.

The difficult part in Octandre, and the element which causes the listener to question the relationship between the ‘self’ and the work, occurs in the assignation of meaning to the restatement of the oboe theme. In a composition from the common practice period, the meaning would be obvious and understood by the vast majority of listeners possessing experience with even a small part of the repertoire from this period. The harmonic resolution of tension derived by modulating from an unstable key area to a stable one provides structure and coherence on the part of the informed, attentive listener. Once a listener understands the concept of recapitulation, the phenomenon can be observed in countless works from the common practice period. The meaning of recapitulation can then be understood with regard to the overall form of the work.

As explained earlier, the recapitulative process does not exist in the first movement of Octandre despite the return of the opening oboe solo at the conclusion of the piece because the notion of beginning - middle - end does not exist in this piece. Moreover, the concept of linear, unfolding time does not exist in this piece. And since the ordering of events is not presented in a chronological, developmental way, the listener must construct a reality for the piece based on different criteria than in a piece which contains these characteristics.

It is with the clarinet motif in measure five and the trumpet motif in measure 23 that a parallel can be drawn with Warren’s Safe in Shade. Varese’s three-note musical motif introduces a new theme which remains unfulfilled and unexplained at the end of the piece. One inherently knows the theme is important to the piece but its meaning is not defined by the context of its presence in relation to other elements in the work. In the poem, when the narrator states ‘I waited for him to speak’ in stanzas three and six both statements are left unfulfilled. The reader never knows what is spoken since the poem immediately races into a new perspective. The old man reveals nothing about himself and nothing about the narrator is revealed either.

In visual art, a similar parallel might be the introduction of an external foreign object into an otherwise natural scene. The train emanating from the fireplace of a Victorian home in Rene Magritte’s painting Time Transfixed (1938) provides an example of a visual object which appears out of place in an otherwise coherent context. The name of the painting further confirms the artist’s intent to arrest time since the word ‘transfixed’ means ‘to hold or fasten with or on something that pierces.’ Clearly, the train arrests time as it pierces the fireplace because it forces the viewer out of the realm of the real world into a fantasy conjured by the artist’s imagination. This ‘frozen time’ causes the viewer to question the relationship between the ‘self’ and the reality posed by the painting. The meaning of this reality must be constructed from the viewer’s unique perspective, one which might clash with that of the artist.

The use of an extreme level of abstraction in a painting removes the subject matter from its natural environment. While the artist exerts more manipulative creative license in presenting the elements to the viewer, in equal proportion, this manipulation removes the elements further from a common reality, forcing structure and content to present themselves to the viewer in a more prominent manner than one might find in representational artistic rendering. The result, according to Krauss (1993) who paraphrases Clement Greenberg in ‘The Later Monet’ from a 1956 article in Art and Culture causes the viewer to understand ‘space as an object,’ an analogue of ‘vision itself’ where ‘It would be the matrix of a gaze that, cut loose from the viewer’s body, was free to explore the dimensions of its own projective movement buoyed by nothing else but subjective reflection on its own form of consciousness.’

If space can be viewed as an object, a musical composition (another type of space which spans time) can also be viewed similarly. When the first movement of Varese’s Octandre is viewed as a ‘frozen space’ framed by the oboe solo, the entirety becomes a container ‘cut loose from the viewer’s body.’ Heard in this way, thematic ordering and thematic relationships become meaningful as constituent parts of a whole rather than a developing process which behaves cumulatively. The meaning of non-linear events may not be clear until the totality of the experience is complete after all elements have been expressed at the conclusion of the work. One’s comprehension of a work depends less on actual ordering of phrases than on the unique
qualities of objects within phrases. Non-linear time requires a different set of assumptions on the part of the observer, a different way of thinking about events which make up a work.

The import in all three art forms is the same: time stops for a moment. The art form throws a question at the viewer who is now asked to interpret the object as part of the art, as something separate from the art, or as something simultaneously within and without the context of the artistic meaning.

The apparent loss of time in abstract painting, just as in poetry and music, causes the viewer to question the relationship between the reality presented by the art and the reality formed through the viewer’s awareness of events around him. Altieri points out that ‘rather than reduce the semantic level of art to the production of aesthetic emotions, the new art sought a formal syntax capable of sustaining the abstract scope of allegory, while redefining its basic relationship between the spirit and its objects in two ways: There must be different means of securing the work’s claims to semantic significance, and the new semantics would have to make the conditions of response serve as testimony for their thematic claims’. The new semantics are based on the use of objects which represent themselves shorn of the cultural and historical meanings they might have in representational art. Musical themes, for example, are reduced to their primary elements: intervals, rhythmic motifs, color (timbre). The new semantics are forced on the viewer only when real-time ceases to function relative to time in everyday life. Then as the parallel between life and art becomes unclear, the rise of abstract semantic relationships force the re-examination of ‘self’ during the interpretation of the art work.

Freezing time causes objects to lose their familiar relationships with other objects. The juxtaposition of unrelated objects begins to make sense, not because they become familiar, but because they are viewed as themselves for what they are. The odd entrance of the clarinet theme by the trumpet in measure 23 of Octandre and the line ‘I waited for him to speak’ Warren’s Safe in Shade seem out of place for they remain unresolved and unjustified as the works unfold. Yet they make sense in works which exist outside the domain of linear time because they are part of the totality being expressed.

So which strokes in Pollock’s Lavender Mist are odd entrances which remain unresolved and unjustified? All of them. Each and every one appears unresolved, set into motion yet frozen through the lack of direction the multitude of drips conveys. The entirety itself remains unresolved, frozen without time. Pollock’s art takes the notion of non-resolution to the extreme, much as one of Schoenberg’s 12-tone serial compositions treats intervallic and harmonic dissonance, by ignoring the need to resolve to a consonance. The difference between Schoenberg and Pollock is that Schoenberg keeps one foot in the past by holding on to a linear time suggested by strong beats fitting into a consistent, steady meter, by writing melodic lines which arc and come to rest, by following rules laid down by Bach, Scarlatti and Rossini. Pollock will have nothing of the past; nor will Varese.

Gooding points out that Pollock attempted to eliminate depiction altogether by creating an object (the painting) charged with effective energies. Varese’s use of pointillistic melodies and disjointed successions of musical themes provides similar expressive result in music. The effect produces a sense of disorientation for one observing the work from a linear point of view. Yet, when understood as non-developmental progressions highlighting syntactical relationships, the works assume greater expressive range and elicit deeper personal meaning to the observer. Moreover, the analog found in poetry, which uses time as a reference to existence, and where the question of existence is threatened by the denial of time, can be immensely helpful in understanding artistic and musical works in which time is denied. Morgan’s examination of ‘spatial orientation in the music itself’ reveals factors which ‘share a common attempt to negate as much as possible the succession of temporal sequence as the principal path for establishing musical relationships’. The factors include harmonic stasis, fragmentation resulting from crosscutting sectional divisions, multilayered textures, among others.

The wide melodic skips in Octandre defy linearity except as broken pieces of notes strung together in short motifs. Pollock’s drips also fail to connect with their neighbors unless observed from a distance. As intricate details merge into one mass of color, the entirety, so do the elements of Octandre merge into a single statement bordered by an oboe solo. The disconnect between the three sections of Safe in Shade: the frozen first scene describing the old man and the boy, the whirling objectivity
of the second section, and the unanswerable questions of the third section set the poem into three unrelated sections which are pulled together by the question posed by the final line of the poem.

Kramer’s definition of multiply directed time (linear sections ordered in a manner which does not suggest logical continuity) can help explain how objects are ordered in Warren’s poem *Safe in Shade*. Each section offers a linear sequence of events but sections are not clearly linked together. The final section, two questions posed by the narrator, help define the narrator’s ‘self’. Without these questions, the poem might be three separate poems held together by a title. Warren resolves the implied connections between the first two sections with the final stanzas.

Taking non-linear form to the extreme, *Number One, 1950* fits the definition of moment time because it exists as a single formal entity, a mosaic consisting of diverse elements sharing a common space without apparent justification. Each element can be viewed as individual objects, ‘something individual, independent, and centered in itself, capable of existing on its own.’ In art, music and poetry, the disruption of linear unfolding highlights the unique qualities, i.e. physical characteristics, of essential elements in a creative work. Non-linear time disrupts the traditional hierarchy of objects. In music, a non-developmental ordering of themes can make contextual relationships difficult to comprehend. Ancillary musical motifs, for example, become an essential part of the overall sonic picture even when they are not principle themes. Shape as an entity in a symmetrical visual pattern can be thematic in ways never possible in representational painting. Characters in a poem begin life as empty vessels waiting to be filled by the environment depicted by the poetry rather than starting out as a caricature of a person who exists in a specific time and place. The loss of a pre-defined history in a poem causes the reader to fill in the details of the character’s past through a constructive process which, along with assumptions extracted from details provided by the work, may result in an interpretation which is quite different from the one intended by the poet. Finally, in all artistic expression, presencing defines the self and its history. When time ceases to exist, or when it is encapsulated into a ‘frozen moment’ the work can be viewed in its totality as a collection of events which present views from differing perspectives, a point of view which questions the identity of the observer and requires the observer to define his own space in which to view the work.

When one understands that the perception of time in an art form, as in life, affects the orientation of the viewer in relation to the work, and its relation to one’s personal reality, the meaning of non-linear time constructs in an art form become clear. The viewer’s loss of ‘self’ in Pollock’s artwork, the listener’s loss of ‘self’ in Varese’s music, the reader’s loss of ‘self’ in Warren’s poetry, derive from the disruption of presencing which takes place in a work which diverges according to the three extases of time.

Endnotes

2. Botstein 2004 describes the movement as one which ‘came to signify, in a positive sense, a revolutionary avant garde that rejected historical models and confronted directly the overwhelming character of the new in contemporary life by penetrating beyond the surface of modernity.’
Edward T. Cone suggests the terms ‘stratification’, ‘interlocking’ and ‘synthesis’ to describe three types of ‘sudden breaks affecting almost every musical dimension’ found in the music of Stravinsky. These can also be found in *Octandre* but do not function in similar ways. For example, Stravinsky alternates sections very frequently while Varese repeats almost nothing. Therefore, the concepts of stratification and interlock exert a minimal effect on the piece. Hence, I will use the term the term ‘recapitulation’. See Cone (1968): 156-64. This article focuses on Stravinsky’s *Symphonies of Wind Instruments* but also examines *Serenade in A* and *Canticum Sacrum*.


Quoted from Stevens (1951): 25.


See Kaprow (1958): 24-6.


Rosen (1980) provides the following definition: ‘The recapitulation starts with the return of the first theme in the tonic. The rest of this section ‘recapitulates’ the exposition as it was first played, except that the second group and closing theme appear in the tonic, with the bridge passage suitably altered so that it no longer leads to the dominant but prepares what follows in the tonic. Longer works are rounded off by a coda.’


Bibliography


The search for the temporal grail?
Reflections on Notation, Control and Digital Music Representations
Carola Boehm

Abstract
The central question to be addressed before starting to design any music application is how to represent music internally. My paper revisits the basics and looks systematically and thoroughly, albeit reflectively and philosophically, at music representation schemes outside the digital world: music notations in the pre-computer age. Following on from there, I ask how much of their functionality is actually supported at present. I see this as part of a search for the 'holy grail in music technology', the ultimate design for music data representation (if such a thing exists). Like all other grail-hunters, this academic simply cannot stop believing in its existence. To our critics, the followers of the 'not-another-standard' camp, we grail-hunters tend to maintain that the journey is part of a process – a journey towards some sort of (music-technological) enlightenment. My work has, therefore, involved looking at the methodologies used for designing systems and data structures. This paper is part of this work and looks specifically at issues around notation, control and the resulting requirements for digital representation.

Keywords: notation, data structure, representation, time

1. A Necessary Introduction about the Methodology Used in This Paper
Like many of my contemporaries, I am interested in searching for the truth – though I should say 'a truth', as post-modern pluralism dictates – hence the metaphors about grail-hunting, which might be seen to be influenced by the contemporary popular book market, but which have an expressiveness that other metaphors lack. Metaphors make us understand a complex issue in more than one way; and this fact needs to be explicitly stated in our traditionally straight-and-narrow science-based approach to writing academic articles: it is academically valid, I state at this point, to be personal, philosophical, discursive and metaphorical. I am a grail-hunter for the music-technological truths behind design. I have been involved in designing systems since 1992. But back then, or more exactly in 1995, the search for and implementation of a widely usable, extensible open central music data structure was likened to providing somebody with a shotgun, potentially opening the floodgates to the misuse of music content. A shotgun? Even I thought that was a metaphor too far.

2. A Metaphor Too Far?
I did not understand the reason for such an aggressive metaphor then, but somewhere along the way of investigating music notation, digital or not, I began to understand that this fear of notational control is often the source of quite emotionally charged debate. This happened in the 1960s in Darmstadt, with extensions for modern music (see Karkoschka 1965); it also happened further back in history at the dawn of written music. There is a continuing fear of control over something so ephemeral as music.

Historically, notation, from the beginning, was associated with struggles between the notion of control and artistic/cultural freedom. Right at the beginning of our western notation, in the 8th/9th century, we find this struggle (see Möller 1987). Pope Gregory the Great (590–604) had introduced a new liturgy. By the 9th century this liturgy established a different tradition north and south of the Alps. Things were not as they should be in the Christian world. According to Notker’s Gesta Karoli Magni Imperatoris

The Greek and Roman had always been plagued by their envy of the glory of the Franks. So that no unity and harmony could ever spread throughout the provinces, they held a meeting in order to discuss how they would be able to make the singing as different as possible (Einhard in Möller 1987: 23).

In 789 Charlemagne had called for a unification in the Admonitio generalis, and founded cloister schools which taught reading, writing, Latin, psalms and psalm-melodies, the Roman liturgy and mass, the calendar, and grammar. There even seems to
have been a ‘questionnaire’ (803) which tested the knowledge of the priests in the area of liturgy. There seems to have been a ‘dangerous’ difference in the Roman liturgy south compared to north of the alps. Whether intentionally or – more likely – through oral tradition, there is already, 50 years after the ‘Admonitio Generalis’, evidence of at least four different methods for notating music: Daseian notation and text syllables (both found in the Musica Enchiriadis), neumes, and alphabetical notation. This pressure from above, this need for more control from Rome, in order to have the same liturgy north and south, can be seen as one of the driving forces behind the creation of music notations or memory aids. The church kept an interest in any method that would help this cause and even a decade later, around the year 1028, did Pope John XIX believe notation to be of such importance as to invite Guido of Arezzo to Rome, the main author behind a fast popular becoming method of notation described in his Prologus and Regulae rhythm.’ (Palisca 2006)

So we can see why these issues might seem to be emotional ones. We are used to notation now, but common, reusable, digital representations could be seen as the new liturgy of today. With or without conflicts or not, nevertheless, the ephemerality of music continued and we, the ‘notationalists’, continued as well. And so I ended up here, without a shotgun, but hopefully with a published paper at the end.

3. Music Representation Standards

Research into new ways of describing music is not new. There have been numerous different music representation standards throughout the recorded history of music addressing different needs.

So do we need another one, or, as David Halperin puts it bluntly, ‘Do you really need to invent a new code? The answer is: probably not.’ (Selfridge-Field 1997: 573). And Eleanor Selfridge-Field roots for natural ‘incompleteness’: a ‘complete’ representation of all domains simultaneously…could easily produce an unintelligible mass of detail. (Selfridge-Field 1997: 578).

But is that really the right question? Should we not rather be asking: Do we need models or languages for a more complete representation of music? Do we need models or representations which are flexible, modular, expandable, granular, scalable, reusable, and usable?

And here comes my sales-pitch. In order to progress in our music-computational world beyond applications which were meant for narrow application perspectives, we need models which will work across the board. In order to interchange our content information from one program to another, be able to use different representations, use different western and non-western musics in one program, we need models which work on general levels as well as deeper levels, models which can be expanded and which are scalable, models which can develop with us without becoming backward incompatible. We will need models which are ‘evolutionary rather than revolutionary’ (Pope 1996: 58).

So, I ask, do we really need to invent yet another standard, another methodology, another paradigm? Then I would say the answer is probably: We have hardly begun!

4. The Seven Steps to Notational Heaven

Looking at traditional western music notation specifically, we can list several aspects of its own functionality: communication, control, preservation, artistic value, ownership, synchronization and study. These aspects can seem trivial, and the following exploration seemingly redundant. Nevertheless, I feel that these functions need to be made meticulously explicit before we can progress to the context of digital representation.

4.1. Communication of the Musical Idea

Putting it simply, notation aids communication of the musical idea over time and space, with the musical idea being some sort of time-based structure: be it as ephemeral as a ‘musical meaning’, or as specific as a temporal structure laid down by a notation. It might include some ambiguity, such as allowing enharmonic changes, or seemingly none at all, as specifying
the frequencies. As the act of music making almost always tends to employ an intermediary, such as the performer or a machine, it needs a communication path from one to the other. On each step of this communication path several processes of abstraction and interpretation may take place. The type of message to be communicated can vary from a descriptive, action-oriented performance rule to a symbolic representation that needs interpretation.

4.2. Controlling the Performance

Usually the person or persons in the role of the creator(s), such as the composer(s), will want a certain degree of control or possibly to control the degree of control up to the point of rejecting any control. Although many modern works tend to aim at being ‘uncontrolled’ – they include, for instance, chance or ambiguity in the notation – our society accepts the fact of artifact-based ‘intellectual property’. With the persistence of the belief in ownership of intellectual property, the need to be certain that one’s own creative product is creative, unique and one’s own still remains as one of the more important aspects within music-making activities. This implies maintaining a control over what the receiver or listener gets: it has to be ensured that listeners/receivers get what the creator intends them to get, even if this includes ambiguity as a characteristic of the piece.

4.3. Preservation

A third functionality is the preservation of a fleeting form such as performed music. Until the time when other means of mechanical, electronic or digital recording of information were accessible, notation was the only mechanism available for making music persistent over time and space. Although other means for persistency have now been made available – recording, for example – these are still very often considered to be interpretations, rather than the work or opus itself.

4.4. Symbolic Meaning through Visual Impact

Notation has always had a more or less ‘graphical’ artistic value associated with it; our common western music notation has established a form which is not only easily decipherable but also aesthetically pleasing to the eye. Our treble clef sign, for instance, has developed to its modern form not only because of pure functional factors but also because of an aesthetically pleasing look and pen flow. The notated work in itself has often had, in our western history, this additional meaning of being a work of graphical artistic value. It was often not just a score but, in a way similar to a painting, could convey with music and art a deeper meaning, in a graphical manner as well as a musical one.

An example of this can be seen in a four-part canon without text by Bartolome Ramos de Pareja (c.1440–c.1491). As is relatively often the case with canons, this four-part canon has been presented in graphical and iconic form. The beautiful miniature (24 x 17 cm) depicts winds in humanoid form blowing from the four directions into the circle of notated music, symbolizing the way this has to be sung, although there is no text (Besseler 1985: 124). Another example can be found in Kyrie I from Missa Salve diva parens by Jakob Obrecht (1450–1505), which was painted for the wedding of Maximilian I and Bianca Maria Sforza in November 1493.

This tradition carries on into modern times, sometimes with the effect of the actual performance being only secondary. ‘Music’ in the twentieth century often became more similar to a work of visual art than performing art. Music has often tried to express itself through other means than a mere set of instructions for a performance; it often wants to convey meaning, and graphical notation and visual art can be aspects of this.

4.5. Providing a Tool for Composition and Study

Another function of music notation has always been the ability to aid processes of study or processes of composition. Our common western music notation developed in the direction of enabling us to see harmonic (vertical) and melodic (horizontal) structures very easily. Not only on this high level, but also on a much more detailed level, graphical elements of our common music notation provide non-explicit information about the structure, the interpretation, the meaning or the performance of a work.

It becomes clear just what a unique achievement the development of the common western music notation is when one
acknowledges that the full complexity of a solely time-based domain has been abstracted into a complex, but easily understandible, two-dimensional representation of itself. As it seems that the human mind has more difficulty in grasping structures in the temporal plane, the transfer to a two-dimensional plane on paper makes it possible to find structures in a two-dimensional domain which represent clearly, but in an abstracted form, structures in a time-based domain. As the score has played such a great role in the process of composition and performance for many centuries, it has come to mean ‘the music’. This concept and value has only been brought into question in the twentieth century due to influences from jazz and improvisation, the popularization of non-western music traditions, and other popular music cultures, which bypass scores for performance and composition.

Nevertheless, the score was, for a long time, also the tool to compose with, and it would have been quite interesting to undertake some psychological tests of composers throughout the ages, and investigate if composers using a score as a tool for composition either hear the music in their mind and then put it to paper or if they see structures on the paper and verify it with reading the music in their mind or even do both simultaneously. My guess would be that we would see the whole variety in-between these two possibilities, demonstrating that the notion of composing on a ‘non-time-based plane’ purely with two-dimensional structures symbolizing time-based entities is one of the major achievements of our common western music notation: graphical elements allow composers to easily construct structures out of larger elements of ‘music’ and are thus ‘tools for composition’.

And if one thinks the word ‘tool’ is too far-fetched in this context, one only needs to go back to the time, in the sixteenth to the seventeenth century, when the vertical aligning of different staves became common, vertical composition techniques became more common than linear contrapuntal methods, and composers regarded the ‘composing in (staff) systems’ as a tool to achieve this vertical-ness of the music (Boehm 1996). Auctor Lampadius, for instance, presented a supporting tool in his book *Compendium Musices* in 1537, the ‘Tabula compositoria’, a device to help composers to easily design understandable scores. A ‘score’, with systems and aligned staves, was not yet used nor seen as the ‘Werk’ itself (the opus) but rather was seen as a means, or a tool for supporting compositional processes. Thus we have an early example of a type of score being seen as a tool to help vertically align staff and systems to help compose in a very specific way.

### 4.6. Ownership

The last couple of centuries of music publishing have made the score the main item of what the German term ‘Werk’ and the Latin term ‘Opus’ tend to express. Especially with the rise of music publishing, the industry needed something physical to attach ownership to, and it found it in the score. Not only was it something that one could hold in one’s hands, but one could also duplicate it and sell it on. The score was the ‘Werk’: it was the proof that it had been created by a specific composer.

Only now, well into the age of mechanical or electronic (and digital) recording of performances, is it possible to associate ownership of a piece of work with a medium other than the score.7

### 4.7. The Art of Playing Together

A last, and possibly the most trivial, functionality of any music description is the goal of being able to represent a method of synchronizing time-based structures when performing the piece. Notation allows us to ‘read’ two-dimensionally how we are to play in a synchronized temporal mode, rather than to remember. The old methods of remembering have been generally de-emphasized in our modern world for the sake of the advantage of ‘reading’ and knowing where to read.

### 5. Functional Comparison with Applications using Digital Music Representations

If these seven main functionalities are valid for music notation, than it is not too much to demand that music applications which have notations as a means or a goal should support these functionalities. The seven functionalities could be said to represent the users’ needs, tested throughout the last 300 years of our western music history, and verified by the general acceptance of our common music notation. The interesting aspect is that only part of this list is realized through software available today, certain functions are only supported on a very basic level, and some have only been added as features in the last
few years. Seldom has the attempt been made to support all or a more comprehensive list of these functionalities in currently available notation or music systems. Even though we may have to acknowledge the increasing diversity of applications and their digital music representations which tend to lack any common purpose, what if we take the above functionalities of our common western music notation as the hypothetical result of a requirements study and apply them to music applications. How do our present applications and standards fare in this comparison?

5.1. Communication Support
The notion of integrating more communication support between individuals in the process of making, creating or investigating music has only been integrated in research projects. The support of some form of web-based dissemination and web-based publishing, if one puts this notion under the heading of communication, has only been added in the last few years. The companies responsible for the two major commercial notation packages, Finale and Sibelius, have both created web-based plug-ins which read their proprietary Finale and Sibelius files, and are able to display and play music on a page basis with automatic page-turning, transposition, and printing features. Another example could be seen in the research work by Holger Hoos and his group, who have developed the GUIDO music notation format and a server–client rendering system which makes it easy to include music notation in web pages (Hoos 1990). Some XML developments in music description could be seen in this light as well.

But none of the commercial packages cater in depth for collaboration between individuals making or creating music, which would need to include synchronization management support as described below.

5.2. Synchronization Support
Some research projects have investigated aspects of synchronization to support collaborative activities. The system by van Ossenbruggen and Eliëns (1994), which is based on client–server architecture, uses an SMDL-like language with MIDI and enables collaborative performances. Another important milestone was the MOODS (WEDELMUSIK) system (music object oriented distributed system) which was also based on a client–server architecture and allowed the synchronized and simultaneous representation and annotation of music scores for performance, thus making it possible to replace scores for large orchestras. On the standards side, the development of an extension to MIDI, ‘Distributed Midi’, by Phil Kerr at the Centre for Music Technology at the University of Glasgow enabled it to be streamed through an Ethernet port.

5.3. Performance Control Features
The notion of controlling the performance is present in almost all composition systems, such as Csound and Max and their dialects, PD, KYMA, Mode and SIREN (and one could even add proprietary and closed systems such as Cubase and Protools to this list).

But most of the composition systems do not cater adequately for presenting music professionally in a score-based fashion. Although many composers who work intensively with these packages would probably insist that they do not need score-based presentation, it still has to be said that the majority of music is still composed with a view to score-based presentation, or at least is transferred after recording into some form of score-based notation.

This holds true in classical as well as popular music, and the distribution of the latter happens not only through CD and MP3-download sales, but also through the sales of single songs as sheet music. Furthermore, when doing a rough survey of composers and artists and their use of computer-based tools for creative purposes, an EU project found in 2001 that only a very small percentage use computer-based tools and then only part of the time. Although there may be different reasons for this, it can be assumed that one explanation lies in the lack of features catering for the needs of these artists, of which the production of score representations might be one. Many artists, even ones who use computers as compositional tools, still feel the need to be able to control the performance, and many feel the score to be the major piece of evidence for their intellectual creative work.
5.4. Digital Persistency

One might naively assume that in our digital world persistence is made easy through the fact that digital data is not as easily damaged as analogue data. Far from it – several European funded working groups have found that one of the major reasons for the lack of uptake of computer tools for creative processes is the lack of permanence. ‘Digital Art needs to be resistant in time and space for at least 20 years in order to be considered for use by the critical mass of artists.’ (CIRCUS 2001).

So persistence seems to emerge as one of the biggest problems for the acceptance of digital tools in creative use contexts. New versions of software are not always 100% compatible with old versions and this provides immense and constant data migration problems, with which artists do not want to be burdened.

Other software only lasts for a few years and its continuing support through the operating system may not be guaranteed, especially when upgrading operating systems themselves. Licenses also make life difficult, as they often need to be maintained, and a change of system can lead to a requirement for a lengthy and cumbersome application for a new license without the purchase of another version of the software. All in all, digital technology often does not seem to convey enough confidence in using these tools for actual works of art (as opposed to the process of creating art) which artists want to be readily accessible by themselves over large lengths of time and anywhere.

5.5. Arbitrary and Artistic Graphic Support

The feature of adding more visual artistic support, above the usual support needed for a graphic music score, has been exploited to quite an extent, but often in one-off, specifically visual artistic applications for specific performances. This is one area of growth in our interdisciplinary world in which areas and cultures are merging. There are composition tools which have added support of graphic output (MAX, PD, GEM for PD), or even systems which began by being mainly graphic and added additional sound tools to their output (VRML applications, X3L, Cave applications, gaming environments). Animation, games, and mixed media art provide creative solutions not only for sound but also for display. Nevertheless, most of the systems do not support our common music notation, and most of the ones which do support it do not support more graphical freedom. Even our classical modern notation packages often still have difficulty with more unusual notation symbols.

5.6. Supportive Tools for Composition and Study

Not many applications provide a tool for composition and study, but there are a few. For composition, for instance, the Composer's Desktop Project provides an expandable set of tools based on Csound. Most sequencing software provides compositional support, even if mostly through proprietary and closed standards and toolsets, and has been criticized for training users in a 'template way of thinking', i.e. the mass production of creative output with minimal effort.

In education, there are just a very few applications and these are primarily for a specific purpose. Most of them were created in research projects for a specialized academic community. For the study and analysis of music there is, for example, HUMDRUM. Powerful notation packages could be used for basic analysis as well, but to a much lesser extent than HUMDRUM. Specific projects have produced very specific solutions, such as Schenkerian analysis, or similarity matches with one specific algorithm being used. Most of the commercial packages that come under this heading tend to be for very specific purposes and, more importantly, their underlying music data structure or music description is hidden and seldom known. This might be considered not only academically unsound, as the use of certain 'hidden' underlying structures in analytical studies of the music may influence the result, but also unwise in terms of design and expansion of functionality as well as possibly ethically unsound in terms of open source issues.

So even though there might be music descriptions out there which support this category of functionality, the majority of them are either on the one hand inaccessible, unexpandable and/or proprietary, or on the other hand specific, targeted and for a narrow usage. The case has been made that just as composers using computer-based tools in Britain got together and gathered a whole toolset (the Csound-based Composer's Desktop Project), there is the need for a toolset collection relevant
to musicology, based on an open, expandable and powerful music description standard. Some of the newest promising developments in this area, albeit with heavier emphasis on audio rather than structured music, can be seen in the CLAM C++ Library for audio and music (UPF) and the M2K (ISMIR) music information retrieval rapid prototyping system for audio and music.

5.7. Supporting Ownership

The notation of the musical idea enables ownership of the idea. This last functionality – ownership – is quite a controversial one in the age of ‘uncountable technical reproduction’ (Benjamin 1963), ‘open source’, and control by the few large publishers and record labels. With the growing number of stakeholders in copyrighted material, it is beginning to be argued that the current legal issues surrounding copyright and IPR (Intellectual Property Rights), which initially were developed to protect the creator, are leading to a situation which is a cultural and creative dead-end. Contrary to the original purpose, creative individuals, and those dealing intellectually with the content, have not had their vested interests secured. Rather, they have been restricted in their possibilities of using and manipulating content for creative or analytical purposes, and have left the distributors winning and gaining the largest part of the income with the least amount of effort. The interests of these two groups stand in direct conflict. This struggle over who owns what and what can be owned has emerged just at the time when technology would actually allow us to bypass high-effort distribution frameworks, on which distributors base their high share of profits.

Thus distributors – such as labels, big IT companies, and publishers – normally support the development of closed and proprietary standards. These do not allow the transparent viewing of what is actually being written into the description of the music, nor of how the music is stored and described. In addition to this, additional hidden information is added for an even greater degree of control, using techniques such as digital watermarking or digital fingerprinting. All this obviously fits in very well under the aspect of control, as it results in the controlled and monitored use of the creative work. This only works because there is such a thing as ownership of a specific use of a certain piece of creative work.

To repeat and emphasize this issue: these techniques are only used in a minor way to identify and provide control to the owner of the creative idea. Today’s third-party distributors have the largest vested interest in making money out of the distribution of the idea, not in the ownership of the idea itself. Thus hidden information in digital data is used less to denote the ownership of the creative musical idea, and more for ownership and control over a certain way of using or distributing this musical creative idea.

It simply has to be said that this is one functionality which our musically active developers’ community should consider supporting only with regard to openness and transparency; they should not cater to the industry’s demand for control of usage and distribution.

6. Summary

When I talked about evolutionary models, rather the revolutionary models, I mentioned the concepts of representational completeness, flexibility, expandability, granularity, scalability, reusability, compatibility and usability. It has to be recognized that there are many developments which go a long way towards achieving these goals. To name but a few there is the whole application group around MusicXML which has sparked the imagination of many developers. Finale and Sibelius Plugins allow MusicXML to be im- and exported with Recordar’s Dolet. It has allowed the interchange of notation files between different packages, such as Finale, Sibelius, Lilypond and Rosegarden, albeit some of those only in one direction. It has already achieved a wider popularity than, what back in the nineties, NIFF, the notation interchange file format, tried to achieve. Work on many others is presently proceeding, and some publications to mention on the search for design and evaluation principles and methodologies are Huron 1992, Byrd & Isaacson 2003, Selfridge-Field 1997, Dannenberg 1993, Wiggins 1993 and Hewlett & Selfridge-Field 2001.

When Selfridge-Field discusses issues in musical representations, she mentions the limits that, according to her, are inherent in the problem of encoding music.
In large measure, all systems for representing music are selective in some way, just as all (geographical) maps are selective in the information they provide. The privileging of one domain may be as essential as it is practical: a ‘complete’ representation of all domains simultaneously, requiring the same kind of superimposition as we can imagine in these maps, could easily produce an unintelligible mass of detail (Selfridge-Field 1997: 568).

But if we go beyond thinking in codes, then it will be possible to come much closer, maybe not to a complete representation, but at least to one which can be expanded and extended and be so flexible as to one day have the chance of seeming to be representationally complete and including as many functionalities as our common music representation has catered for over the last 300 years, including communication, synchronization, performance control features, digital persistency, arbitrary and artistic graphics, tools for composition and study, and ownership.

Endnotes
2 Reinterpreted here, the seven functions of notation were mentioned in similar form in Donachy 1999.
3 Florenz, Biblioteca Nazionale Centrale, Ms. Banco Rari 229 (Magl.XIX, 59), 24 x 17 cm, fol. C.III.b
4 Wien, Österreichische Nationalbibliothek, Ms.S.M.15.495, 55x38cm, fol.1v–2r
5 Auctor Lampadius, Compendium Musices, Bern 1537 (Berne, 1537, 5/1554)
7 This is addressed in US Public Law 92-140, Feb. 15, 1972.
8 The apparent dichotomy between a ‘relatively well-understood phenomenon’ such as traditional notation, perceived as a unity and a ‘wide range of representations and applications that lack any common purpose’ was noted by an anonymous reviewer in 2006.
9 MOODS – TETRApc HPCN ESPRIT Project n.25968, Av.: http://www.dsi.unifi.it/~moods/moods/mp_over.htm [23/03/2005]
10 P. Kerr, Dmidi, IEEE P1639
12 This library is being developed by the UPF Music Technology Group to provide basic toolboxes and infrastructure for its projects, but also to increase synergies and algorithm-sharing among different groups. It tries to provide a proper algorithm encapsulation, communication and parameterization. (Announced on DMRN email list, 04/03/2005.)

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University).


Sound-colour and Accretion as Structural Devices in Helen Gifford’s Music for the Adonia

Ruth Lee Martin

‘What we were looking for was in a way more humble: sounds, simply sounds. Sounds pure and simple’.
John Cage

Melbourne composer Helen Gifford provides an ideal case study through which to view compositional processes associated with sound-colour. Her fascination with musical colour and textures have been lifelong preoccupations in her compositional work, and, indeed, lie at the core of much of her music. Her skillful and effective use of these musical elements as key ingredients in her compositional designs is demonstrated in the composition Music for the Adonia (1993) — a work that was commissioned by the Elision Ensemble and premiered in Lismore in 1994.

Several factors have been influential in sparking Gifford’s interest in composing rich and expressive sound worlds. Developments that took place in European composition, particularly those focusing on timbre and texture, had a significant impact upon many Australian composers in the 1960s. Around this time Gifford threw herself into an intense program of self-directed analytical study. Her early work for string orchestra, Phantasma (1963) reflects strong influences of the Second Viennese School both in its style and language and Gifford comments that at the time, ‘Webern and Berg, and certainly the early Schoenberg existed well and truly for me (Stevens, 1985, p.35). The exploration by Schoenberg of the possibilities inherent in progressions of tone colours and tone colour relationships as structural devices were to have a great impact upon Gifford’s compositional style and these ideas became more and more to the fore in her compositional experimentation.

In the early 1960s Gifford also became interested in the work of Ligeti and Lutoslawski, who were making their impact upon the European scene with their experimental approach to sound. Lutoslawski's emphasis on 12-note chord aggregates subjected to spatial metamorphosis had an impact upon Gifford, but the most influential work was Ligeti's Atmospheres with its slowly evolving sound world, whereby the central structural element is textural and timbral transformation with melody, pitch and rhythm being subsumed into a micropolyphonic web of sound. Gifford comments that

‘Ligeti’s Atmospheres was a work I loved. In Imperium [Gifford’s third orchestral work] I completely divided the strings a la Ligeti’s Atmospheres…it was a wonderful, sensuous thing to do’ (Gifford, H., pers. comm., 4 Jan, 1998).

On a more personal level a continuing source of inspiration for Gifford was a trip to India in 1967, the result of which was a further heightening of her interest in the sound world. The exotic new sounds and timbral colours she heard on her trip not only inspired her compositionally, but also led her to collecting unusual instruments. Many of these instruments have been included in her scoring which often calls for extended percussion sections.

Finally Gifford's work in music theatre has been no less important necessitating a quite literal ‘hands-on’ practical approach in order to produce a required sound. Gifford feels that this music theatre work, which often required using everyday objects in unusual ways, or in adapting whatever sounds were to hand, was invaluable compositional training. It is this as much as anything that has effected her personal musical aesthetic. Gifford says,

I tapped into things I’ve done for the Melbourne Theatre Company. I’ve been surrounded by years of the stuff and you have to force yourself to think of novelties in theatre music...It forces you to deal in new sounds all the time... it’s influenced a lot of what I’ve done. I went into textures in a big way (Gifford, H. pers. comm., 4 Jan, 1998).
Music for the Adonia is a result of these studies. It is a complex work that relies upon processes of textural accretion both within and across each movement in a manner that articulates both the underlying structure of the work and provides a sense of momentum through a continual process of expansion.

![Large-Scale Structure](image)

Figure 1. Form

Music for the Adonia is tripartite in form and the three movements are played without pause. The idea for the design of each movement is derived from the ancient Greek festival held in honour of Adonis (a mythical Greek God who spent half the year in the underworld and the other half in this one). The festival, for women only, began with a lament for death, and then progressed into a celebration of life with its attendant fertility rites (Gifford, H. pers. comm. 30 Sept, 1994). In essence this piece represents the cycle of death/grief/renewal.

**Sound-colour:**
Music for the Adonia is scored for piccolo/flute, Bb clarinet, percussion, soprano, harp, mandolin, ten-string guitar, viola and cello. As might be expected of a work by Gifford, the percussion instrumentation is large reflecting the importance of timbral effects and instrumental colour in her music, as well as her interest in non-Western instruments.

<table>
<thead>
<tr>
<th>Piccolo/flute</th>
<th>Percussion:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bb clarinet</td>
<td>crotales</td>
</tr>
<tr>
<td>Soprano</td>
<td>6 small Indian bells</td>
</tr>
<tr>
<td>Harp</td>
<td>mark tree</td>
</tr>
<tr>
<td>Mandolin</td>
<td>2 sistrums</td>
</tr>
<tr>
<td>Guitar</td>
<td>2 Chinese symbols</td>
</tr>
<tr>
<td>Viola</td>
<td>tam-tam</td>
</tr>
<tr>
<td>Cello</td>
<td>anvil</td>
</tr>
<tr>
<td></td>
<td>spring coils</td>
</tr>
<tr>
<td></td>
<td>5 tom-toms</td>
</tr>
<tr>
<td></td>
<td>bass drum</td>
</tr>
</tbody>
</table>

Figure 2. Instrumentation

The instrumentation, carefully chosen to reflect the work’s programmatic background with its plucked and strummed string sounds and exotic instruments, provides a fitting atmospheric background. The atmosphere of Ancient Greece is evoked by the sistrum, harp, mandolin, guitars. She includes other unusual-sounding instruments such as the mark tree, the spring coils made from car suspension springs, the anvil, the Indian bells and the Chinese cymbals.

The emphasis that Gifford places on instrumental colour and the resulting effects can be clearly seen in the following table.
The vocal line consists predominantly of vocables rather than text and the vocal function is twofold. On the one hand it provides the work with an additional rich palette of remarkable sounds that push the solo female voice to its limits through Gifford's interest in ancient vocal techniques, and on the other the manner in which the voice is used underpins the work with an overriding sense of religious ritual that highlights the programmatic idea behind the music. Helen Gifford's comment on the text says it all:

If you could analyse the meaning of these sounds they would all be saying the same thing over and over (Gifford, H., pers. comm., 30th September, 1994).

The vocal sounds are ritualistic and serve an incantatory purpose, invoking the god *Adonin* – the renewer – the bringer of life.

<table>
<thead>
<tr>
<th>Timbral effects in piccolo</th>
<th>Timbral effects in clarinet</th>
<th>Timbral effects in soprano</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluttertongue</td>
<td>Trills</td>
<td>Trills</td>
</tr>
<tr>
<td>Breathy tones without tonguing</td>
<td>Tremolos</td>
<td>Glissandi</td>
</tr>
<tr>
<td>Breathy tones and tonguing of note</td>
<td>Glissandi</td>
<td>Vibrato that gets wider plus glissando</td>
</tr>
<tr>
<td>Key slaps</td>
<td>Multiphonics</td>
<td>Breathy tones</td>
</tr>
<tr>
<td>Key slaps without tonguing</td>
<td>Mutliphonics with glissandi</td>
<td>Throat tremolo, scooping up to note and glissando</td>
</tr>
<tr>
<td>Tongue rams</td>
<td>Breathy tones fingering not without tonguing</td>
<td>Cupping hands over mouth with jaw tremolo, scooping up to note and glissando</td>
</tr>
<tr>
<td>Key clicks without air</td>
<td>Breathy tones fingering and tonguing note with key slaps</td>
<td>Microtones</td>
</tr>
<tr>
<td>Jet whistle</td>
<td>Slap tongue</td>
<td>Changing acoustic within mouth on vowel sounds</td>
</tr>
<tr>
<td>Wide vibrato</td>
<td>Slap tongue with key clicks</td>
<td>Hitting throat then chest rapidly while executing a glissando upwards</td>
</tr>
<tr>
<td>Pizzicato without key slaps</td>
<td>Trills</td>
<td>Grace notes</td>
</tr>
<tr>
<td>Glissandi</td>
<td></td>
<td>Wide vibrato</td>
</tr>
<tr>
<td>Trills</td>
<td></td>
<td>Portamento</td>
</tr>
</tbody>
</table>

**Figure 3: Instrumental Effects.**

<table>
<thead>
<tr>
<th>Timbral effects in viola and cello</th>
<th>Timbral effects in guitar</th>
<th>Timbral effects in harp and mandolin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tremolo</td>
<td>Hammer on</td>
<td>Glissandi</td>
</tr>
<tr>
<td>Glissandi</td>
<td>Trills</td>
<td>Tremolo</td>
</tr>
<tr>
<td>Fingernail pizzicato</td>
<td>Trmolo</td>
<td>Use nail</td>
</tr>
<tr>
<td>Saltando</td>
<td>Glissandi</td>
<td>Stretch string</td>
</tr>
<tr>
<td>Sul ponticello</td>
<td>Sul ponticello</td>
<td>Microtones</td>
</tr>
<tr>
<td>Harmonics</td>
<td>Microtones</td>
<td>Metal plectrum</td>
</tr>
<tr>
<td>Widening vibrato</td>
<td>Right hand harmonics</td>
<td>Sul tasto</td>
</tr>
<tr>
<td>Flautando</td>
<td>Sul tasto</td>
<td>Thumb tremolo</td>
</tr>
<tr>
<td>Microtones</td>
<td>Pizzicato</td>
<td>Sul tasto</td>
</tr>
<tr>
<td></td>
<td>Rolled chords</td>
<td>Sul ponticello</td>
</tr>
</tbody>
</table>

The vocal line consists predominantly of vocables rather than text and the vocal function is twofold. On the one hand it provides the work with an additional rich palette of remarkable sounds that push the solo female voice to its limits through Gifford's interest in ancient vocal techniques, and on the other the manner in which the voice is used underpins the work with an overriding sense of religious ritual that highlights the programmatic idea behind the music. Helen Gifford's comment on the text says it all:

If you could analyse the meaning of these sounds they would all be saying the same thing over and over (Gifford, H., pers. comm., 30th September, 1994).

The vocal sounds are ritualistic and serve an incantatory purpose, invoking the god *Adonin* – the renewer – the bringer of life.
Figure 4 (beginning): Movement One, p 3
Figure 4 (conclusion): Movement One, p 3
Accretion:
Along with the use of sound-colour another significant force at work in this composition is a process of accretion whereby pitch elements expand outward, note aggregates accrue until dense clusters are created, the attack density of the rhythm increases, the texture thickens with the addition of instruments, and the overall dynamic level increases. This process of accretion forms the overall basis of continuity throughout each of the three movements, as well as across the work as a whole. This technique serves as a conceptual model in Music for the Adonia and foregrounds the textural and timbral materials of the piece - elements that are significant features of Gifford’s personal style of musical composition.

The accretion occurs on a micro level within the different musical elements, or strands - that is, pitch, rhythm, note aggregates, dynamics etc. All, some, or even one of these micro accumulatory strands may be used in a section of the work. They are used conjointly (i.e. they build together with other micro accretion elements) or, they are used disjunctively (i.e. the accumulatory components are offset against each other with abrupt shifts from one to the other). See for example the following excerpt from the score: Movement One: pp.2&3 (Figure 3).

Movement One exemplifies the idea of accretion clearly in the basic elements of note aggregates, rhythms, texture and dynamics. The movement begins with the single, repeated pitch played by the cello, out of which grows the material that follows in the stringed instruments, until bar 12. Together, these instruments form the background strata of the overall texture. The foreground strata comprises the clarinet and piccolo. The texture of the background strata itself accretes by moving from a thin (single-line) texture, to a single line that is doubled (bar 5), to a thicker texture across four instruments in rhythmic unison, to a rhythmic expansion away from rhythmic unison that results in a dense wall of sound. In bar 9 the background strata is given additional colour with the addition of percussion. The process of accretion in the movement is reflected on the level of instrumental density of the texture as shown below:

![Instrumental Density in Movement 1](image-url)
Before The Image of Adonis

Figure 6: Segment of Movement Two showing interjectory figures and texture p.16.
Figure 7. Movement Three p.25
Ruth Lee Martin: *Sound-colour and accretion as structural devices in Helen Gifford’s Music for the Adonia*

**Figure 5: Instrumental Density**

With each of these incremental steps in instrumental density there is a corresponding increment in dynamic level. The foreground strata of the overall textural design comprises the clarinet and piccolo in an alternating series of short fragments of material. The clarinet, however, is given primacy since it begins the two sets of exchanges (at bars 3 and 6) and it also leads the music forward by its glissando ascent over the introduced percussion, to the highest note in the piece at bar 12. Movement One is the simplest and most straightforward of the three movements.

**Movement Two:**

Movement Two begins symbolically on a dynamic of ppp. According to Gifford, ‘from out of the ashes comes the lament; the dirge’ (Gifford, H. 1994, pers. comm., 13th September) and here the process of accretion is again evident, although Gifford shifts her emphasis. The vocal line - heard now for the first time - takes the foreground role. Interjectory figures that make up the upper level strata materials from Movement One are extended, and expand out to include harp, mandolin and guitar and submerge into the middleground (Figure 6). The texture here perhaps owes something to the pointillistic textures of Webern. The interjections are juxtaposed against a background wash of drone-like lower strata in viola and cello. The momentum in this movement begins to build as the bursts of sound in the upper strata become increasingly more frequent along with a slow build up in the dynamic level from ppp → f. The rhythmic density and complexity also increase as the movement unfolds.

The rhythmic density of the soprano line builds dramatically over a period of eight measures from one note every two beats to 13 notes every beat.

Texturally Movement Two is more complex than Movement One - the accretion process occurring in a more intricate and sustained manner. Gifford has greatly added to her palette of textural and timbral ideas through development and addition of new material so that there is now a middleground strata, as well as background and foreground.

**Movement Three:**

Movement Three is the most complex of all the movements and is made up of three sections using materials and ideas from the first two movements with the addition, once more, of some new ideas and materials. The relationship between the foreground, middle ground and background material becomes increasingly complicated.

The opening section begins with a quotation of the same interjectory figures used in Movement Two and this quotation is combined with the vocal line and a cyclical rhythmic pattern in clarinet and flute. By measure 49 the interjectory figures have been replaced by pitch ostinato in harp, guitar, viola and ‘cello. These instruments are soon joined by pitch ostinato in the vocal line and mandolin. The only movement in terms of pitch comes from a superball rubbed freely across the bass drum for two measures as the rhythmic density increases along with the composite rhythmic attack rate and the dynamics.

The middle section of Movement Three (p.25, measure 60) provides a strong timbral contrast. Sparse background material of string harmonics, piccolo and colouristic percussion sounds provide an effective foil against which the soprano executes vocal phrases that become increasingly complex and include tone modifications such as microtones, glissandi, trills (Figure 7).

At p. 26, measure 66 the third section of this movement begins with another marked timbral contrast. Helen Gifford says of this section that, ‘...with the rolled chords in guitar and harp the piece becomes very savage, very wild’ (Gifford, H. 1994, pers. comm., 13th September). Thick, dense ostinato textures build with arpeggiated chords in both guitar and harp. By measure 73 there are nine instruments playing up to 27 notes at one time. This creates a dense sound mass in which the soprano voice joins with either an ornate pitch contour or static, reiterated pitches and indeed, this section with its unified rhythmic confluence heralds the arrival of the accretion process itself as the work quickly builds up to the last dramatic measure (Figure 8).
Figure 8: A few bars of Movement Three, p 26
It is significant that this last section of the movement is flanked by two utterances of the name ‘Adonis’. (Significant as no other words are used in the entire work).

Figure 9 denotes the close of the second section with the word ‘Adonin’. It is not perhaps surprising given the programmatic and ritualistic nature of the vocal line that the entire work comes to a close with a mood of religious ecstasy on this very word. The ascending vocal line rises over an octave to end dramatically with this word defiantly half sung, half shrieked in an intense moment of religious ecstasy. Here the voice dominates the thick instrumental texture and contributes greatly to the highly effective, and triumphantly climactic moment of this last measure. Death and its horrors are vanquished, at least for another year, and life once more begins.

**Conclusion:**
The skillful building of texture and the use of instrumental colour provide this work not only with a clear overall structural, but also with a sense of momentum - momentum generated by the process of accretion. As the accumulation of elements builds in the micro-elements an intensification occurs and it is this continual process that creates a sense of motion. In this work the motion is not purely two dimensional – that is linear, but rather, three dimensional in that the work is continually expanding outwards and contracting inwards on many levels. This sense of momentum works on different levels: firstly with the individual micro elements that provide small scale intensification until their respective destinations are reached; and secondly, on a larger scale, the overall intensification caused by the addition of many of the accumulatory strands that progress to a combined destination. Therefore within this process of accumulation there is a hierarchical relationship, the individual strands being subservient to the whole. Significantly each movement, while using this same process, is texturally very different providing the work as a whole with a contrasting middle section and a nod to more traditional forms. This process of accretion can be perceived across the whole trajectory of the piece.

The emphasis on timbre and texture combined with the manipulation of instrumental density through the process of accretion is the basis of continuity in the music, such that it is the primary underlying process from which the overall structure of the music is determined. The complexity of the way in which basic raw musical elements are woven into the accumulatory strands and how these accumulatory strands operate within the work to provide both structure and momentum is a testament to Gifford’s compositional craft. She has the ability to skillfully manipulate this basic element, sound itself, to provide a musical work that is both highly effective and engaging.


Roig-Francoloi, M (1995)


The Childlike Wit Of Martin Wesley-Smith

Roger Covell

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Wit is a fairly rare quality in Australian music for the concert hall or the opera theatre (perhaps in any Australian music or any Australian art form, for that matter). Australians, speaking very generally, don’t do wit. In music many of our best-known and seemingly most representative composers produce music identified broodingly with landscape or ferociously intent states of mind or with a seer’s treatment of the self-sufficient formalities of musical relationships. Some of Carl Vine’s music, in particular a number of his works for chamber ensembles, might appear to be exercising wit, though perhaps his manner is closer to that of a burnished neatness rejoicing in its own lucidity. George Dreyfus’s Galgenlieder has a headlong incisiveness, matching the character of Christian Morgenstern’s verses, and if a pithy and grotesque use of musical vernacular is wit, then this is a witty work. In general, however, Australian music is not conspicuous for its wit. I think it is true to say that many Australian composers would not wish to be given credit for being witty. Quite a few of them are likely to think it un-Australian.

In proposing Martin Wesley-Smith as a composer whose music can have a metaphysical drive amounting (metaphorically) to wit, I take courage from the fact that his work has been described on a number of occasions as not seeming to belong to the collective identity of contemporary Australian music or, as some would have it, not belonging in any collegial sense to contemporary music as a whole. This may be another way of saying that there is something distinctive or at least unusual about it. In any case, I must make it clear that I am not applying the idea of wit to all of Wesley-Smith’s music. In his ‘documentaries,’ as I shall call them for want of a more precise term, the combination of computer-controlled visual references, text and sounds is more likely to be pitched deliberately at the level of poster art. This applies especially to those documentaries dealing with political issues in an explicit way; for example, to most of the pieces he composed over an extended period in support of East Timor’s struggle for independence. It is certainly an apt description of one of his most recent works involving the most recent American-led invasion of Iraq and the policies and persona of George W. Bush. Such pieces may be arresting as well as confronting, but they do not employ the manner of wit. The same is true, I believe, of the scores Wesley-Smith put together for the annual events he used to organise at Wattamolla beach on the coast of New South Wales south of Sydney. A number of Australian composers can reasonably claim to be evoking landscape in their music. Wesley-Smith’s Wattamolla events, in contrast, immersed the music in landscape and seascape to the extent of having it generated from within wind and wave, cliff and foreshore.

Wesley-Smith’s musical wit is mainly to be found among his non-political works for chamber ensemble and his choral pieces; and it is no accident at all that the relevant examples are overwhelmingly concerned in some way with the life and literary fictions of the Rev. Charles Lutwidge Dodgson, the Oxford-based mathematician, clergyman and photographer best known under his pseudonym of Lewis Carroll as the author of the Alice books. Carroll’s prose and verse represent a deep version of surrealist wit and can be said to have partial modern equivalents in the intuitive juxtapositions and outrageous logic of the Goon Show, Monty Python and their various derivatives. Wesley-Smith himself is fond of quoting a literary critic’s labelling of the sensibility involved in Carroll’s output as one of ‘existential despair’; signifying that he approves the notion of finding within and beyond the seemingly heartless brilliance of the Alice books and related verses a quality of ineluctable pathos and bleakness. Whether we agree with that theory or not, it is undeniable that Wesley-Smith produces (and intends to produce) such an effect at the end of his work for chamber ensemble, Snark-Hunting.

The tune of the traditional children’s song, ‘Rock-a-Bye Baby’, among other similar songs (‘Three Blind Mice,’ ‘Humpty-Dumpty’, ‘Oranges and Lemons’, ‘Mary had a Little Lamb’, ‘Here we go round the Mulberry Bush’ and, very prominently, ‘Pat-a-Cake’) is subject to all kinds of ingenious transformations during the piece. Another ‘Carroll’ piece, White Knight and Beaver, manipulates the tunes of, among others, ‘Polly Put the Kettle On’ and ‘Ride a Cock Horse.’ At the end of Snark-Hunting ‘Rock-a-Bye Baby’, after its various transformations, forlornly repeats its original version on a wound-up music box running down into silence (Example 1).
'Rock-a-Bye Baby' is not an incidental element in Wesley-Smith's scheme of things. It stands for one of his most abiding preoccupations, one that he shares with Dodgson-Carroll: the imaginative world of childhood. You may be aware that Dodgson in his Carroll persona liked to take apart Victorian music-boxes playing such tunes and re-pin or re-cog them to play the tunes backwards or inverted, or both, for the amusement of his young female friends, including the original Alice, Alice Liddell. Such techniques, not surprisingly, appealed to the musical manipulator in Wesley-Smith; all the more so as he had at hand a modern device that aided such musical jugglery: the Fairlight Computer Musical Instrument. The Fairlight CMI was designed and made in Sydney and was at one time an international choice of many studios and performing groups. Wesley-Smith became this country's leading musical practitioner on it. It is the source of the original tape part in Snark-Hunting and in many of the composer's other works.

At this point I have to acknowledge that Wesley-Smith is not the only composer to find Carroll a consistently fascinating source of creative ideas. The American musician David Del Tredici, for example, has composed a series of works with titles related to the Alice books and began doing so something like five years before Wesley-Smith started his comparable series, in or around 1973. If I say that I have to take the Alice references in Del Tredici's music largely on trust – meaning that I can't hear any persuasive connection in the music, as distinct from the words that may be chosen for setting – that may point to the limitations of my perception rather than to any deficiency in the composer's creative responses to Carroll's fantasies. A more objective reason for my greater belief in the aptness of Wesley-Smith's responses is that he mimics, in the fondness for games and puzzles that he shares with Carroll, something essential in the character of Carroll's creations and does so out of an essential element of his own creative make-up. Wesley-Smith, in other words, has a counterpart to Carroll in his own recalled and reinvented childhood, one that he shares with his text-writing twin brother and frequent collaborator, Peter.

An example of the kind of manipulation of traditional children's songs that I have been talking about is Wesley-Smith's manipulation of the melody of the lullaby, 'Rock-a-Bye-Baby'. I choose it not only because it is simple but also because the result is musically very fruitful. Here is the melody of the lullaby, as you can hear it in part at the end of Snark-Hunting.
Example 2:  *Rock-a-Bye Baby* (original of one version of the melody)

Now we see it turned back to front, in its retrograde version:

Example 3:  *Rock-a-Bye Baby* in retrograde

and, finally, backwards and inverted:

Example 4:  *Rock-a-Bye Baby* retrograde and inverted

With one or two small adjustments we have arrived at the new melody, as applied to words in Wesley-Smith's *Snark Hunting*
2, another piece based on Carroll’s poem.

We find the same tune, this time in a choral version, used at a salient point of Wesley-Smith’s theatricalised entertainment or staged oratorio, *Boojum*. *Boojum*! is named after the mysterious creature in *The Hunting of the Snark* who causes unwary Snark-hunters to evaporate and who may be the Snark under another name (Example 5):

![Example 5: ‘Where is the Snark?’](image)

I quote from this song’s occurrence in two different scores to illustrate the remarkable fact that this systematically rearranged series of notes has become, it seems to me, not only a workable and memorable melody in itself but has emerged as the representative Wesley-Smith tune of his Lewis Carroll pieces. It appears as a recurring motif in *Boojum!,* which has claims to be Wesley-Smith’s most substantial score and is the culminating work for which his earlier essays in the genre were creative sketches or preliminary essays.

Faith in the validity of Wesley-Smith’s affinity with Carroll’s childhood worlds is increased, I suggest, when we examine the composer’s own background. His mother, Sheila, was at one time a well-known personality in the then Australian Broadcasting Commission’s national kindergarten of the air, using music extensively to provide an entertaining focus for the imagination of young children. Wesley-Smith reacted against his parents’ ‘classical’ preferences in music, turning to jazz, pop and folk and making the arrangements for a successful trio, The Wesley Three, in which his twin brother, Peter, was a member. The group made recordings, appeared on television and performed in clubs and hotels with material designed to appeal to a predominantly young audience. It was from his involvement in this kind of activity rather than out of graded
music studies of a conventional kind that he recognised a need to undertake a degree course in music at the University of Adelaide, working with Peter Tahourdin and Peter Maxwell Davies, and eventually to proceed to doctoral studies at the University of York. His earliest works included an opera for schools, *Pie in the Sky*, and scripts and music for an ABC music education program, ‘Let’s Have Music’. In other words, his inclination to inhabit a world of childlike imagination was not an attitude assumed at a later stage of his development but seems to have continued uninterruptedly from his own childhood years. Many people find it hard to maintain or even to acknowledge the insights of childhood during their adult life. Wesley-Smith may have found additional steadfastness in persisting with this kind of vision in having a twin brother who shared his delight in word games and in the combination of words and music. Martin Wesley-Smith once, as a young man, put his commitment to the sharing of childhood in manifesto-like form:

I’m interested in extending contemporary improvisation procedures...and want to find ways of bringing contemporary music in a meaningful way to much larger audiences than at present...It...entails going to the grass roots: working with children, not necessarily composing for them, rather composing with them, studying and learning from their own compositions and music-making.°

Unlike a majority of people who make such statements, Wesley-Smith appears to have fulfilled them in a way entirely natural to him.

Of course, manifestos of this kind have nothing to do with wit. If Wesley-Smith’s music corresponded in tone with the earnestness of this youthful statement it would be difficult to argue that its good intentions quickened into something more volatile and airborne. One of the definitions I have adopted for musical wit is speed of thought and delight in playfulness,
allied to a freedom from rhythmical stiffness. I direct your attention to examples of Wesley-Smith's ability to let his music take wing while never losing its sense of direction or stylistic coherence. The first two excerpts are passages from *Snark-Hunting, No 1* is an example of its speed of transition (Example 6):

No 2 exemplifies its parodistic suppleness as it gives its children's song tunes the temporary feel of Indonesian gamelan music (Example 7)

A third example of this fleetness of thought is from a work, *db*, written by Wesley-Smith in tribute to a fellow-composer and colleague at the Sydney Conservatorium, the late Don Banks. Although this score, not surprisingly, makes reference to some of Banks's music and to his abilities in and fondness for jazz, it is interesting that its second and final movement is entitled 'Pat-a-Cake 2', following an earlier 'Pat-a-Cake' score written in 1980 for tenor trombone and tape. This movement is described by the composer as 'a further exploration of one of the simplest and most common melodic and harmonic cells of all: the triad' (contained in the first three notes of the 'Pat-a-Cake' tune. 'The more I look at it,' the composer says, 'the more I find things to do with it.' 'Pat-a-Cake 2' is scored for flute doubling alto flute, clarinet, piano and cello. It takes us back to the composer's Carroll-like games with traditional children's songs and shows what dazzling patterns they can produce when imagination is allied to ingenuity. The thematic sources of the music are, literally, childishly simple, but the music derived from it, although appealing, is anything but simple-minded; nor is it easy to play (Example 8).

Another potential source of wit, though perhaps of a slightly squishier, less diamond-hard kind, is applied incongruity. Wesley-Smith's lifelong fondness for some pop genres, including barbershop harmonies for vocal ensembles, has resurfaced from time to time. Barbershop harmonies became a medium of expression on a larger scale in the composer's 1979 setting of words by himself and his twin brother in an extended piece for unaccompanied choral forces, *Who Killed Cock Robin?* Again, a traditional song familiar to many children served as the conceptual starting-point of the work while being transformed into
Roger Covell: *The Child-like Wit of Martin Wesley-Smith*

Example 8: Excerpt from *Pat-a-Cake* in *db*

an environmental cri-de-coeur against the use of DDT and other pesticides. In this work Wesley-Smith refrains from the poster-like vehemence of accusation in many of his politico-social works and employs a more insidiously memorable form of expression. This takes on the form of an impudent diversion in the section entitled ‘I’m a Caterpillar of Society,’ in which the jaunty wheeze of harmony and rhythm offers relief from moral prodding. Although this episode became a kind of scherzo within the piece, a final section restored seriousness with a forensic report on the poisons causing Cock Robin’s death. When the Caterpillar’s song received a fresh lease of life in *Boojum!* its text was given extra point and succinctness and the piece served the function of a diversion, with no heavy-handed postlude. Its parodistic wit in *Boojum!* embraces, among other things, a brief evocation of early rock.

‘Steps,’ the first of two movements in Wesley-Smith’s 1991 ensemble piece *db*, is the work’s most explicit tribute to the memory of Don Banks. It begins, in fact, with the notes D and B played on the clarinet. This movement pays affectionate acknowledgment to blues and cabaret and offers, in its opening pages (originally conceived as an irregular waltz), an extravagant demonstration of arabesque and decorated melody; so extravagant that it might be construed as satire and certainly can be categorised as exaggeration carried to the point of revelation. The composer himself characterises it as music that might ‘come from a slightly sleazy dance hall.’ Second and subsequent impressions of this passage, and its varied returns, however, tend to concentrate on the music’s masterly, peacock-like spreading of feathers and on the aplomb with which it maintains a balance between slyly smiling parody and fluid, infinitely supple grace (Example 9).

Martin Wesley-Smith arrived at his sixtieth birthday in 2005. To say that he ‘turned sixty’ might well be regarded as an exaggeration. Observers of the human scene often declare that there are few things more pitiable than the old age of a person who has traded in youth. Wesley-Smith is not likely, on present indications, to relinquish his practice of putting together passionately felt politico-social ‘documentaries.’ His musical games and puzzles in the spirit of Carroll, I venture to say, will not appear pathetically nostalgic by contrast. His wit is tough and resilient, founded in ingenuity and quickness of thought.
and an abiding human pleasure in agile play.

Endnotes

1 See, for example, Andrew Ford’s sympathetic summary of attitudes to Wesley-Smith’s music in ‘Dropping out: Martin Wesley-Smith,’ in Composer to Composer, Sydney, Allen & Unwin, 1993, pp 232, 235.

2 As the text of Boojum! makes clear, the range of pen-names Dodgson originally proposed to his publisher included anagrams of the letters in his first two names: Charles Lutwidge. Carroll appears to be a partial anagram derived from his three names.


4 Ford, Composer to Composer, p 235.

5 J. Murdoch, Australia’s Contemporary Composers, Melbourne, Macmillan, 1972, p 203.
Don Banks’s Composition Lessons with Mátyás Seiber

Bradley Cummings

Introduction
There is no question that Mátyás Seiber, as a composition teacher, exerted considerable influence upon those future professional composers that went to study with him in England in the late 1940s and 1950s. Of his Australian students, two of the most prominent were Moneta Eagles and Don Banks. Indeed, in Banks’s case, the composition that effectively launched his career as a composer, the *Duo for Violin and Cello*, was written under Seiber’s tutelage and began its life as a composition exercise in two-part counterpoint. Furthermore, Banks’s first published composition, the *Sonata for Violin and Piano*, was also written during his time as one of Seiber’s students. Banks kept many of his notes and exercises from his composition lessons, and with them it is possible to offer a reasonably detailed account of the first year of studies that he undertook with Seiber in 1950.

Banks’s lessons with Seiber
Not long after Banks arrived in England in February 1950, he sought the advice of Arthur Benjamin, an expatriate Australian composer living in London whom Banks referred to as the ‘doyen of Australian composers.’ Banks recounted how Benjamin, after looking at some of his early compositions, suggested that he approach Mátyás Seiber for private lessons. Banks did not act upon this advice immediately, but on the 27th of April 1950 he heard the first broadcast performance of Seiber’s cantata, *Ulysses*, at the BBC studios at Maida Vale, and the impression that it made upon him prompted Banks to make the initial contact with Seiber. Within three weeks of hearing this performance, Banks had started his studies with Seiber.

Seiber’s teaching philosophy
Seiber gave a clear account of his approach to teaching composition in a talk that he gave at an I. C. A. Composer’s Concours in London on the 23rd of May 1955. The two main elements of his approach are what he referred to as the ‘essential things’ combined with ‘basic principles.’

Essential things
Seiber both started and ended this talk by referring to the fact that he relied upon no ‘system’ of teaching or of composing because every student differed in what he or she knew and in the skills that he or she already had, and since Seiber’s objective was to teach the student what he or she did not know, the teaching strategy adopted for each student was necessarily different and no system of teaching could accommodate those differences. By way of example, Seiber described three generalised student types that he had encountered and commented on how his teaching varied to accommodate the strengths and weaknesses of each student type. In the first example, the student is unable to extend an initial idea beyond the first two bars of a composition. ‘In cases like this,’ Seiber stated, ‘I would give him several exercises for motif-development and variation; show him how many possibilities are inherent in his initial idea, and make him develop it in many different ways.’ The second student type has the opposite problem in that he or she ‘rambles on, gets loquacious, repetitive, and hounds to death his slender ideas.’ In this case Seiber’s strategy was to impress upon the student a ‘greater degree of self-criticism’ in order that the student might better realise ‘when an idea has given out all there is in it … and that it is time to change the subject.’ And the third student type is one who gets stuck by repeating a single idea, ostinato, or texture. In these cases the objective for Seiber was to ‘loosen up’ the student’s writing in order to encourage variety, and, if too loose, to ‘show him how by unifying principles he might get greater coherence and solidity.’

In all three of these generalised instances, Seiber was concerned with what he called the ‘essential things’—with the way the student worked with the initial compositional idea in order to draw from it all of its implications, and to balance them with appropriate variety.

The type of discourse that Seiber adopted in his outline of the ‘essential things’ embodied what amounts to an ethical
responsibility on the part of the composer toward the compositional materials—a responsibility to draw out the implications of the material while avoiding stagnancy caused by lack of variety. For example, the notion that musical ideas might be ‘hounded’ implies unfairness toward the idea, which is a transgression of the ethical responsibilities of the composer. Or that the material can ‘give out’ all that it has despite its ‘slender’ stature implies a certain respect that must be adopted toward the materials as a consequence of them effectively giving their ‘all’ to the composer. Similarly there is the suggestion that if one fails to draw out all of the compositional implications of the idea then those implications will remain latent within the idea, never to be realised and therefore wasted, which is another transgression of the responsibilities of the composer toward the ideas.

Behind the ethical overtones of Seiber’s choice of words is an aesthetic position that certainly had a long-term impact on Banks’s work, and which in turn reveals the influence of Schoenberg and the Second Viennese School had upon Seiber’s own work. An indication of the influence that this had on Banks can be seen in the way he adopted the expression ‘obligation of the motive’ in his own description of the concept of the ‘essential things’ in a set of notes that he made for a talk on his own works and life as a composer:

So I’ve established that I believe I’m a composer — I have a certain attitude to my craft which perhaps I can best express as ‘respect for your musical material.’ In the same way as Schoenberg refers to the ‘obligations of the motif’ i.e. the tendency or inclination of the motif to develop in a certain way — then I would refer to the ‘obligation of the composer’ not to sell his material short—to see that these ‘cells’ of musical material are developed and brought into a fruitful existence as a living piece of music.

In his talk Seiber outlined two basic principles to which he adhered, and together these two principles accounted for, and justified, a teaching method that was based primarily upon the analysis and imitation of model compositions from selected past masterworks of Bach, Haydn, and Brahms.

The first of Seiber’s basic principles was that ‘learning or teaching composition is a purely practical matter … which can be best learned by imitation, like other crafts.’ In an analogy that Banks himself later used, Seiber likened composition to making shoes: ‘Just as a shoemaker learns step-by-step how to cut the right size of uppers so as not to pinch, how to make joints which don’t creak etc., so the student must learn how to present ideas, how to lead from one to the other, how to join etc.’ And just as a shoemaker learns his craft by being apprenticed to a master shoemaker and learning on the job by imitation, Seiber likewise believed that the best way of learning composition is by imitating the work of master composers. He thought that ‘the composition student should be a kind of apprentice who could be given small tasks, small details in the master’s work, and then corrected by the master and shown how he would have done it—and to do the same sort of thing until finally he gets proficient in it.’

The second of Seiber’s principles was the understanding that ‘composition is an entirely traditional discipline’ in which the techniques of master composers need to be learnt because ‘these are the entire foundation for our present day techniques.’ Seiber makes it quite clear, therefore, that his students must be prepared to immerse themselves in the music and the techniques of the recognised past masters, whose work, according to Seiber, formed the very basis of even the most modern music. To ignore it was to risk ‘[remaining] an amateur with no foundation.’

This method of teaching based upon analysis and imitation, together with the philosophy behind it, was not only borne out in the work that Banks did with Seiber, but also in Banks’s own talks, speeches, and writings. These materials suggest that not only did Seiber teach Banks in accordance with this method, but also that Banks adopted the principles for himself in his own work and future teaching endeavours. For example, in the draft of the talk that Banks prepared on his 1956 composition Pezzo Dramatico, he wrote that:

… the greatest stress should be placed on a minute and detailed analysis of music of all periods in the
training of a composer. One just can’t get enough of it, I think it was Ravel who said something about ‘you can never hope to know your own technique until you know the technique of others’ and this is certainly true.7

This pencilled, draft copy of the Pezzo Dramatico talk contains the most specific comments that Banks himself made regarding what he actually studied with Seiber, and, in general, these comments correspond to the outline of the teaching method that Seiber gave in 1955:

… after a year or so I was promoted to 2 part inventions, then 3 part, on to the Art of Fugue etc., then Purcell, Haydn quartets and symphonies, on to Brahms and in every case the technique was the same, analyse the piece in as detailed a form as possible; break it up into its components and then using it as a model write various exercises in the style of the period involved (for example if it was Bach the use of auxiliary and passing notes, pedals and suspensions would have to proceed in as authentic a fashion as possible), then finally write a piece in your own idiom. So if we were studying ground bass, the system would be:— go through say Bach organ passacaglia, a Purcell chaconne, perhaps a passacaglia from one of the Handel suites, the last movement of the Brahms 4th symphony, a Hindemith chaconne, Webern’s passacaglia op. 1 in D—and having studied all these styles finally you had to write a piece in your own idiom. The idea of the method is not to alter your own personal way of expression, that’s sacred, but to develop the technical background so you can eventually express yourself fully and coherently.6

Although Banks mentioned several composers whose works were studied, Seiber claimed that the main sources of compositional models that he used were the Inventions of Bach because ‘it is incredible what variety of compositional techniques can be found in these short pieces, how each of them is different and how an amazing amount of development and possibilities are drawn in them from the simplest material.’ Haydn’s music was also used ‘because of the variety of formal devices, the inventiveness and the incredible amount of combinations and variations which he can develop from any initial motif.’ In his reference to just these two composers, Seiber’s teaching concerns and, to some extent, his aesthetic disposition towards musical composition, can be seen at work in that the choice of both sources of models, Bach and Haydn, are predicated on the ability of the music to demonstrate the drawing out of possibilities, of development, variations, and combinations from an ‘initial motif’ or the ‘simplest of material’, further reflecting his concern that his students learn these ‘essential things’ from these composers.

Seiber’s teaching method in practice

Two-part inventions

The earliest dated document from Banks’s studies with Seiber is a draft of a two-part invention in G minor, dated the 15th of May 1950 — less than three weeks after the first broadcast performance of Ulysses.13 The draft takes one and a third pages of manuscript paper, and on the lower two thirds of the second page Banks wrote a ‘plan’, shown in figure 1, which illustrates the tonal and thematic structure of the music.
This plan is presented in an identical manner to a collection of thirteen analyses that Banks prepared of J. S. Bach's two-part inventions. These thirteen analyses were sketched out in a small notebook, at the end of which was appended the note shown in figure 2, dated one week later on the 22nd of May 1950, making it clear that Banks prepared these analyses over the same period of time that he wrote his draft of the G minor invention. See Figure 2.

An example of one of Banks's analyses of Bach's two-part inventions is shown in figure 3. The analysis divides the composition into three main sections, an 'exposition', 'development', and a 'final section', and plots the occurrences and variations of the initial theme ('T') and countermelody ('CP') within these three sections, as well as in relation to an overall 'key plan', which Banks wrote underneath the diagram. See Figure 3.
The plan for Banks’s G-minor invention is generically identical to those of the Bach models, in that it shows the way in which the themes, counterthemes, tonal centres, cadential points, and types of textures, such as imitation and canon, are used, but the design itself is not a direct copy of any of the Bach models. Rather, it adopts the general principles that the Bach models exemplify, such as the imitation, transposition, and inversion of themes, harmonic motion through related key areas, and so on, and applies them in an original design that was intended to show an understanding of the conventions and the underlying principles of the models, and which are not verbatim copies of individual compositions.

The draft itself was written in a relatively straightforward tonal idiom and Seiber’s three written annotations in bars 6, 7 and 17 point to conventional voice-leading and tonal considerations: ‘too many 8ves and 5ths’, ‘stronger mod[ulation] to B flat’, and ‘mod!’ (shown in figure 4).

Banks addressed Seiber’s annotations in a second draft, written out neatly in black ink, and dated a week later on the 22nd of May 1950. In this second draft Banks attempted to correct the problems that Seiber indicated on the first one, but, in so doing, he introduced further problems, which in turn solicited further annotations from Seiber. On the first draft Seiber suggested that the first note of the second bar should be changed to B flat to avoid repeating the note C across the barline, and the same for the note A at the beginning of the third bar (see bar 2 of the first draft, top of figure 4). In the second draft (at the bottom of figure 4) both occurrences of these repeated notes were removed, and the series of octaves and fifths in bars 4–6 were also removed. The ‘stronger modulation to B flat’ in bars 6–7 was addressed by holding F in the lower voice for the last two beats of the sixth bar, thereby intensifying its function as a dominant leading to B flat in bar 7. See Figure 4.
The annotations that Seiber wrote on the second draft indicate that the subdominant ‘region’ of B flat should be stated on the third beat of the sixth bar by placing C or E flat in the lower voice, thereby strengthening the modulation to B flat major by effectively outlining a full IV–V–I cadence. The comment that Seiber wrote across bars 4–5 (‘directly to B flat’) also suggests that the tonality of the music in these first few bars, as it progresses from G minor to B flat major, should proceed directly without hinting at the subdominant key, C minor, which is suggested by the presence of B natural and A flat in bar 4.
These two drafts show that Seiber’s annotations and Banks’s subsequent revisions were all directed toward an adherence to the stylistic norms of Bach’s tonal idiom. The repeated notes across the barlines compromise the flow, or the momentum, of the melodic line at stylistically inappropriate places and a definitive move to the relative major key, B flat, is encouraged in order to affirm a conventional modulation rather than challenge it.

The remaining annotations on the second draft mark places where accented dissonances occur, or where an entire bar proceeds in parallel sixths (bar 12), or where the intervallic distance between the two lines becomes too great (bars 17–18), or where the return to the key of G minor in bar 21 is too sudden—all of which are conventional errors.

Banks addressed these annotations in a third, undated draft, written out neatly in blue biro with some corrections in pencil, but with no further annotations added by Seiber.15 This time the cadence to B flat in bars 6–7 outlines the chord progression ii–V–I, and the suggestion of a C minor region in bars 4–5 has been removed altogether.

These three drafts of the G minor exercise along with the thirteen analyses of Bach’s two-part inventions offer a clear picture of how Banks’s studies with Seiber started, and they illustrate a practical adherence to the teaching method that Seiber outlined at the I. C. A. meeting five years later, a teaching method consisting of work that Banks later described as ‘[breaking a composition] up into its components and then using it as a model [to] write various exercises in the style of the period involved… ’16 These first drafts of the G-minor invention confirm that this was indeed the way Banks’s studies with Seiber began.

The initial emphasis that Seiber placed on two-part inventions was not limited to just one exercise, as the existence of a second original two-part invention in D major shows. The first draft of this second invention was also dated the 22nd of May 1950 and shows that Banks worked concurrently on at least two different two-part inventions.

The study of two-part inventions continued if not constantly, then at least periodically through the rest of 1950 since there are at least three other two-part exercises that Banks worked on during the succeeding months: a second G-minor invention, dated the 8th of August 1950; an undated two-part invention in D minor; and one in E flat major dated the 12th of December 1950.17 These drafts show that the emphasis on these studies was maintained from May to December 1950, but after the initial attention that was given to them in May, the studies were broadened to include other technical exercises as well as the study of music by other composers.

**Systematic construction of phrases**

The first document to indicate this broadening of Banks’s studies is a single sheet of typing paper, over part of which is a set of notes dated the 6th of June 1950 (figure 5). The notes on this page concern the construction of eight-bar phrases, techniques for extending phrases, and some general notes on the music of Haydn. This is followed by a list of three things to do under the heading ‘work.’ See figure 5.

On the opposite side of the same page upon which these notes were written are annotations that relate to the third of these listed tasks—the exercise in thematic construction. The annotations take the form of a list of fifteen sequences of four letters as shown in figure 6 (some of which are still visible on figure 5). See figure 6.

Each letter in this table represents one of four two-bar thematic fragments or ideas, A, B, C, and D, and the table lists a systematic way of combining these fragments to produce a variety of different eight-bar phrases. This list corresponds to the fifteen numbered eight-bar phrases that Banks sketched out on the manuscript item shown in figure 7.

All of the possible combinations of each two-bar thematic fragment were systematically assembled, allowing Banks to assess every possibility for the construction of his eight-bar phrases. That Seiber stressed the importance of knowing every possibility before making any compositional decisions is entirely consistent with his emphasis on the responsibility that the composer has to the latent potential of the materials of the composition, and this practice was further reinforced by the second task on
Work –
(1) Study harmonic plans – of Haydn Quartets
(2) Bach harmonizations
(3) Thematic construction - make them musical and expressive – … Try … combinations … and construction of 8 bar phrases.

Figure 5: Banks’s notes, dated 6th of June 1950.

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| A | B | C | D |

Figure 6: Banks’s list of fifteen combinations of units.
Banks's list, the harmonisation of chorale melodies.

Chorale harmonisation
Banks showed Seiber many of the chorale harmonisations that he did as a student in Melbourne, to which Seiber responded that it was not sufficient to harmonise the chorales in one way only, and that he should ‘go away and harmonise one, twenty different times, because until you can see all of the possibilities, all the harmonic possibilities, how can you select the best?’

Once again it was Bach who provided the model for analysis for this exercise because Bach himself harmonised the same chorale melody in many different ways, and Banks studied these different harmonisations as well as preparing his own. Figure 8 shows Banks's roman-numeral harmonic analysis of Bach's harmonisations of chorales 29, 64, 76, 254 and 67, which all have near-identical melodies but which Bach harmonised in different ways. See Figure 8.

In turn Banks wrote out the melody of chorale no. 292 and harmonised it in four different ways (figure 9), and each attempt was annotated to highlight some of the conventional voice-leading errors, such as parallel fifths and octaves. See Figure 9.

Haydn's string quartets
The remaining item on the list of tasks that Banks was set at the beginning of June 1950 was to study the 'harmonic plans'
of Haydn’s string quartets. To that end Banks filled three pages of foolscap paper with analytical notes on Haydn’s string quartet op. 76 no. 6 in E flat major. At the top of the first page Banks noted the sorts of things that he was looking for in his study:

**Look for — Constructional, Harmonic & Contrapuntal devices + Rhythmic ones.**

Banks sectionalised the movement into an opening section followed by four variation sections. With each of these he further subdivided them into subsections A, B, C, and a coda. He then further divided these subsections into units of between two and eight bars for which he wrote descriptions of their features and characteristics. The descriptions that Banks wrote concentrate on the same sorts of features that he indicated in his diagrams of Bach’s two-part inventions—relationships between themes and counterthemes, types of textures and rhythms, harmonic chord progressions and pedals, and the use of the different instruments. In this sense, Banks’s notes are a very thorough description of the movement.

However, on another set of manuscript pages he extended his work beyond this level of description and began to analyse the thematic and motivic construction of the music in more detail; in Seiber’s terms he started to focus on the ‘atoms and cells’ of the music. Figure 10 shows the way in which Banks approached this analysis.
Banks plotted the relationship between four motivic ‘groups’ and the original four-note motive with which the piece starts. The motivic figures in group A are derived directly from the original motive, maintaining the same rhythm and the characteristic semitone ascent from the second to the third notes. The figures on the first staff of the group B examples (numbers 4 and 5) are likewise derived directly from the original motive, but this time the ascending interval between the second and third notes is inverted. The arrows connecting the figures in the two group B columns show how the motives are derived from each other, and subsequently how the group C motives are derived from one of the group B examples, thereby forming a hierarchical network of motivic relationships that unify the thematic construction of the music.

The ‘ground bass’ study
In addition to the smaller analytical and compositional exercises that Banks completed during the course of 1950, he also worked on larger projects that illustrate, in proportionally more detail, both the scope of Banks’s work and the nature of Seiber’s teaching. One such project is what Banks himself referred to as the ‘ground bass’ study, in which he analysed the passacaglia in the last movement of Brahms’s fourth symphony. He then used this analysis as a model for his own composition.

Banks’s study of Brahms’s passacaglia
There are two parts to Banks’s analysis of this passacaglia, or ground bass. The first is a list that he prepared, spread over four
Figure 10: Banks’s analysis of the motivic construction of Haydn’s op. 76 no. 6.

pages, of thirty ways in which Brahms varied the original ground bass idea. Banks copied out the different variations and annotated them with notes relating to the ways in which the ideas were orchestrated. The first page of that list is shown in figure 11.

At the top of the page Banks wrote the initial passacaglia theme and noted the instrumentation, ‘w[ood]winds and brass’, which he then followed by notating the subsequent variations, numbered on this page from 1 to 9. On this list there is no attempt to understand the way in which the variations relate to the continuity of the movement. It serves primarily as a taxonomy of Brahms’s ideas for variations that Banks eventually drew upon for the composition of his own exercise.

The second part of the analysis is a study of the way in which the rhythmic activity in the music gradually increases as the movement progresses. With each of the varied statements of the passacaglia theme, Banks plotted the elements of the variations that contribute to the increasing rhythmic attack density of the movement. This second part of the study takes two and a half pages to write out, and the first page is shown in figure 12.

Banks annotated the accompaniment to the first statement of the theme as a ‘simple pattern’ with two attacks per bar shared between the horns and the pizzicato strings. The second and third variations show an increase to three attacks per bar—one on each crotchet beat—played firstly in legato phrases and then as staccato notes. In the fourth variation, the strings introduce offbeat quavers which result in a composite rhythm of even quavers that push the attack density from the initial two per bar
to six per bar. The fifth variation increases the attack density further by introducing triplet quaver figures into the texture, which in turn assume a ‘more prominent position’ in the sixth variation. In the seventh variation the semiquaver figure is introduced, preparing the eighth variation which is comprised entirely of semiquavers. Finally, the ninth variation pushes the rhythmic density to maximum by combining semiquavers with semiquaver triplets. In these nine variations the rhythmic activity of the music increases from very sparse to very dense by decreasing the predominant note durations progressively from crotchets to semiquaver triplets, and this idea became the basis for Banks’s own variations.

Banks’s study of rhythm in the Brahms symphony was accompanied by a similar study of the increasing rhythmic and textural density in Bach’s C-minor organ passacaglia, which was written immediately after the corresponding study of rhythm in the Brahms symphony. Like the Brahms analysis, Banks listed twenty variations of Bach’s passacaglia theme and briefly described how the musical elements contribute to the steadily increasing rhythmic activity in the music.

**Banks’s passacaglia**

The scribbled set of notes that Banks wrote on one side of a sheet of lined foolscap paper under the heading ‘Ground Bass’ (figure 13) gives a clear indication of how he proceeded to write his own passacaglia.

The first three steps noted on this page are pre-compositional activities specifically intended to reveal the harmonic and motivic possibilities of the theme, as well as its potential in a canonic setting. The sketch materials show that he followed these three instructions exactly. Figure 14, for example, shows his study of the harmonic possibilities of the ground bass theme that
Figure 12: The first page of Banks's study of the increasing attack density of Brahms's passacaglia variations.

Figure 13: Notes concerning the composition of a ground bass exercise.

In writing a Ground Bass -- examine all the harmonic possibilities first -- then the new harmonies possible when the Bass is shifted through the various registers.

See how it fits as a canon commencing on various beats and at various intervals.

Find the various ways in which it may be embellished and the various shapes it may undergo without losing its characteristics.

See the possibilities of a figure embellishing the bass spreading through the other parts also. Straight harmonization of theme with flowing CP.

Plan the approx. number of variations then -- of 3 part plan
(1) Plan the dynamic structure.
(2) Plan the rhythmic movement to increase to a central point -- here it is a good idea to put down the texture -- with possibly the effect also of a plain statement of the theme to refresh the memory -- Increase again (?) to end.
or a 2 part plan
leading to a central climax then being cut down to a quiet ending [diagram of cresc. -- decresc.] could possibly refer to the 1st set of variations backwards and/or upside down.
Bradley Cummings: *Don Bank's Composition Lessons with Matyas Seiber*

Figure 14: First of four pages showing Banks’s exploration of the harmonic possibilities of his ground bass theme.

he wrote for this exercise.

Banks’s ground bass theme bears a striking resemblance to Brahms’s theme (figure 15) in that both themes are eight bars long, both are in a 3/4 metre, the first four bars of each are characterised by stepwise motion in a single direction, and the fifth bar in each contains a chromatically intensified preparation of the pitch in the sixth bar.

(a) Brahms’s theme

(b) Banks’s theme

Figure 15: (a) Brahms’s theme; (b) Banks’s theme.

Banks began by writing the theme in the bass, which he then harmonised eight different ways in four-part chorale style. He then placed the theme in the soprano voice and harmonised it ten different ways, and, finally, he harmonised the theme once in the alto voice. This movement of the ground bass theme into the upper voices corresponds to the instruction written in the notes to examine ‘the new harmonies possible when the Bass is shifted through the various registers’ (figure 13) Once again Seiber was encouraging Banks to systematically discover all of the compositional possibilities that were available to him.
The second item in his notes was to explore the possibility of using the theme in a canonic setting. His sketches (not shown here) show that this was exactly what he did, although the idea of a canonic setting was never used beyond these pre-compositional experiments.

However, the study of possible variations of the ground bass theme received more sustained attention, the first page of which is shown in figure 16.

These pages contain thirty-one numbered variations and embellishments of the ground bass, divided into five categories, or ‘groups.’ The first group contains variations that are limited to rhythmic embellishments and octave displacements, and pitches that are not specifically in the original ground bass theme are generally avoided (with the minor exceptions found in variations 5 and 9). The three variations in the second group allow the inclusion of neighbour notes, and those in the third and fourth groups show increasing rhythmic activity and use of arpeggios. The fifth group is based on the free use of all of these ideas.

Banks derived many of the ideas for his own variations directly from the Brahms model. For example, among numerous other similarities, variation number 4 in the Brahms study corresponds to Banks’s own variation number 2, except that the [crotchet–minum] rhythm is reversed to become a [minum–crotchet] rhythm (shown in figure 17). Also, the use of tremolo in Brahms’s variations 17 and 18 was adopted by Banks in variation 7, and the syncopated figure in Brahms’s variation number 22 was used in Banks’s variation number 9, among other examples.
“Consistent inner parts needed—too many shapeless filling-in notes”

Figure 18: An extract from section 5 of the second draft, with Seiber’s annotations.

**Conclusion**
A more complete list of the work that Banks did with Seiber during 1950 was written out by Banks himself on one side of a piece of manuscript paper dated the 13th of November 1950 (figure 19).

Most of the material on this list is an extension of the work that was started in May and June, such as the study of two-part inventions (which, on this list, include those of Bartók’s *Mikrokosmos*), the analysis of formal and thematic structures, the harmonisation of folk-song melodies (instead of chorale melodies), and general technical work such as ‘methods of embellishing a long held note.’ It is possible to use this list to account for most of the extant material from 1950 that is held in the Don Banks Collection, but what the material consistently illustrates is that the method of study remained constant: analysis and then emulation of models, in the manner that Seiber described to the I. C. A. Concourse in 1955. They illustrate a consistent emphasis on the systematic exploration of all of the available options in order to know what the best compositional choices are for any given circumstance.

From these early studies, and particularly from the ground bass exercise, the initial traits of Banks’s own compositional practice can be seen. In particular, the practice of dividing a compositional project into two distinct areas of activity, analysis and composition, in which the pre-compositional (analysis) phase was less a means of determining specific materials with which to compose than as a means of knowing all of the possibilities for the use of the material. This is a direct result of Seiber’s influence and teaching method. Furthermore, the practice of composing in sections according to a predetermined
formal ‘template’, which was clearly illustrated in the ground bass example, was an approach that Banks continued to adopt throughout the rest of the decade—an approach that resulted in a very conventional approach to musical form which is a clear stylistic trait in Banks’s music of the 1950s. The reason for this trait and for Banks’s particular way of composing music has its origin in these initial studies with Mátyás Seiber.

**Endnotes**


2 This material is held in the Don Banks Collection in the Manuscripts Section of the National Library of Australia (NLA MS6830). All of the references in this article to Banks’s notes and sketches refer to this collection.
A transcript of this talk can be found in the Don Banks Collection, box 4, folio 33. All subsequent quotations of Seiber in this chapter refer to this transcript, unless otherwise indicated.

The difference between ‘systems’ of teaching, of which he spoke in the negative, and his ‘method’, based on analysis and imitation, was not made clear by Seiber. It appears, however, that by ‘system’ Seiber referred to prescriptive compositional theories such as those of Paul Hindemith and Joseph Schillinger. See the transcript of Seiber’s talk, Don Banks Collection, box 4, folio 33: ‘I don’t believe in ‘systems’—in fact I think they might be harmful, and to prescribe, as Hindemith does, that after a chord of such-and-such a class you must take a chord of the next class etc., produces just as much rigidity as any academic ‘degree-work’.’

Banks himself reiterated this same point in ‘Lecture on C20 music’ (Don Banks Collection, box 34, folio 252) delivered to his own students in the mid-1970s: ‘Get a firm, well-developed technical background in composition … To my knowledge very few of the young composers in [Australia] have sufficient technical foundations to guarantee their ability to continue … I do fear for certain of those who are achieving some kind of reputation now, as they could be in trouble in the near future having no support troops, as it were, to fall back upon.’

This performance took place on 27th of April 1950 and was broadcast on the BBC Third Programme as part of a series entitled ‘Contemporary Music’. (Confirmed by personal communication with the BBC Written Archives Centre (9th of July 2002): ‘… the first broadcast performance of [Ulysses] took place on the 27th April 1950 (9.35–10.20pm) on the BBC Third Programme as part of a series entitled ‘Contemporary Music’. The performance was indeed broadcast from the Maida Vale studios and was arranged in co-operation with the London Contemporary Music Centre. The performers were Trefor Jones (tenor), Joseph Cooper (piano), London Philharmonic Choir, BBC Symphony Orchestra, Jean England and Eileen McLoughlin (sopranos) and the concert was conducted by Sir Adrian Boult.’)

This timing is determined by the known date of the performance and the first dated sketches of Banks’s studies with Seiber.

These notes summarise the views that Seiber put forward in his 1955 I. C. A. talk: an emphasis on the motivic ‘atoms and cells’ of the music and the composer’s responsibility towards this material, and a distrust of systems, indicated here by reference to the prescriptive nature of Hindemith’s theory of harmony.

Rough sketches of sections of it were written on the outer faces of the bifolium that contains the second draft.

This latter one is found in the Don Banks Collection, folio 1, pack 3.

Only the first half of the chorale is shown—the continuation being on the next page of the bifolium.

Banks referred to the ‘ground bass’ project in the Pezzo notes as well as in work list that he wrote (shown in figure 19).