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Scafra Preludes

Notes and analyses



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Preface

The *Scafra Preludes* for piano were composed over a period of ten years, 1995-2005. These notes and analyses were begun in about 1997 when I noticed the Preludes' growing complexity and realised that I couldn't remember, even after Book 1, what I'd done. Since then the texts have burgeoned to encompass a wide-ranging discussion of the Preludes and of scafra terminology. Originally I hoped they would form a set of appendices to the score of the work itself, but their length and complexity finally demanded a volume on their own.

The various articles included here give a description and a history of scafra and of the Preludes; an encapsulation of my compositional style therein; a description of the lengthy gestation of Book 3; a discussion of Prelude 12's links with the previous pieces in the set; and programme notes as I wish them to appear at performances. The analyses are technical and aim to be exhaustive. They are interspersed with further notes, specific to individual Preludes, on my process, on performance matters, and on various revisions that took place after the original composition date.

Two of the articles here ('On scafra' and 'Programme notes') are also printed in the published score of the Preludes. Except where otherwise indicated, page references here refer to that score.

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On scafra

For definitions of the terms used below (many of which are my coinages) please refer to the **Glossary** at the end of this volume.

Scafra is a way of structuring a piece of music reminiscent of the 'process' techniques of the early minimalists but used differently. The word itself is a contraction of *Scan, Frame Advance*, borrowed from video technology: a picture is scanned onto a TV screen – it is actually a still picture, but immediately a second one is scanned, replacing the first, then a third and so on, giving the impression of movement; in each frame the actor has moved slightly: the frame has advanced. Scafra is similar in that the music repeats-but-has-moved-on. The simplest example is a short series of notes, say 1 to 6: repeat these notes (*the frame*) but miss off the first and add one to the end –

```

frame 1      1  2  3  4  5  6
frame 2           2  3  4  5  6  7
frame 3              3  4  5  6  7  8

```

This is the basis of scafra: the frames advance. But there are many ramifications and refinements: for instance what is represented by any number (1 to 6 etc – I call this an *element*) need not be a single note, but could be a chord, two chords, or even a complex passage. You can *spool out* these elements from a single one –

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6

```

– before starting the frame advance –

```

2 3 4 5 6 7
  3 4 5 6 7 8
    4 5 6 7 8 9

```

– and then *pooling in* to a single element at the end –

```

5 6 7 8 9
  6 7 8 9
    7 8 9
      8 9
        9

```

You can re-introduce element number 1 at the end so that the whole frame *rotates* –

```

1  2  3  4  5  6
   2  3  4  5  6  1
     3  4  5  6  1  2
       4  5  6  1  2  3

```

etc.

You can spool out in both directions from a central point to make a *pyramid* –

```

           4
          3 4
         3 4 5
        2 3 4 5
       2 3 4 5 6
      1 2 3 4 5 6

```

The above examples all involve frames of six elements: but any number of elements can be used to make a frame.

Scafra can be intercut, varied, counterpointed, used serially, used to determine harmonies, hidden, layered, applied to borrowed music... all these processes and more take place in the Preludes. Basically a simple idea, as simple, perhaps, as the basic idea of fugue, scafra can yield equally rich and varied results.

The *Scafra Preludes* are laid out in books of three. Each book contains a fast piece of some technical difficulty, a discursive declamation and a slow meditation: what earlier composers might have called a *toccatà*, a *fantasia* and a *notturno*. In Books 1 and 2 this is the order of the three pieces – fast, discursive, slow. In Books 3 and 4 it is reversed: so that the series as a whole has a still centre (Preludes 6 and 7) and virtuosic extremities.

While it would be inaccurate to speak of keys as such, each of the twelve Preludes has a specific note as its centre of gravity – its *pole note* – and the order in which the pole notes appear throughout the Preludes is pre-determined in a series – the *scaprel row*. I designed this row to be a cryptogram of my name, omitting the second R:



As well as determining the pole note of each Prelude, the scaprel row is also widely used, melodically and in other ways, within the music: it permeates the opening of Prelude 1; it is exposed as a chordal melody in Prelude 2; transpositions in Prelude 3 are derived from it; it appears converted into a rhythm in Prelude 5 (you do this by giving each note a number, then assigning to each number

its own rhythmic value); Prelude 6 is entirely constructed from such numbers, and from the notes of the row itself; Prelude 7's pitches follow its rotations, Prelude 8 its permutations; the harmonic structure of Prelude 9 is made from it; the 'found' elements in Prelude 11 follow it; and about half of Prelude 12 is made from it. Only Preludes 4 and 10 fail to exploit its possibilities within their material: but even these (as they must) take their pole notes from the row.

In piano music the term 'prelude' has long ceased – certainly since Chopin – to imply any sort of opening or overture. These Preludes stand in their own right, and are designed to be played in any context, individually, in their Books or as a complete sequence.

Rapido ♩ = 144

A freer middle section provides a lyrical interlude, using toward the end a melody derived from the first five notes of the scaprel row, the cryptogram 'daryl': then we move into the final section, which proves to be the first one backwards.

Prelude 2 (pole note A, dedicated to John Underwood) begins softly but is interrupted by increasingly violent interjections, as the music builds to a powerful climax. Two intercut scafras run independently for the length of the piece. One is a series of chords (following the scaprel row) which spools out from a single soft element to a complete frame of 12, loud and arpeggiated. The other is a frame of 8 single notes, also soft at first, which are rotated, expanded, exploded and transformed out of recognition. After the climax the music suddenly dissipates into a strobe, a repeated passage of notes subjected to rhythmic displacement. Imperceptibly this becomes a spool in, which spins the Prelude to a close.

Prelude 3 (pole note C#, dedicated to Suki Pay) contains scafra rotations of a languid melody owing obvious debts to earlier composers of piano music. It is in 5/4 against a repeated C# bell note. As well as being rotated the melody appears at 4 different pitches (the original version, composed in C#, was discarded and is never played).

<i>transposed into</i>	D#	1	2	3	4	5
	G#	5	1	2	3	4
	B	4	5	1	2	3
	G	3	4	5	1	2

The whole Prelude is actually a *pyramid of pyramids*. Its three sections (each a pyramid) are themselves laid out in pyramid form:

```

      2
     2 3
    1 2 3
  
```

At its second appearance section 2 (the cascading runs) is varied and played backwards. In the following section 3 the F below middle C (the Prelude's pole note) is damped inside the piano, giving a short guttural thump. Section 1 (which due to vagaries of pyramids is the fourth section we hear) alternates loud, low clusters and high tinkles.

Prelude 6 (pole note F#, dedicated to Chris Shurety) is subdued in tone, restricted in dynamic range (*ppp* to *mp*) and meditative. It utilises the total serialism developed in the 1950s by such composers as Boulez and Stockhausen, with serialised pitches, rhythms, chord-densities and dynamics, all based on the scaprel row. The music is laid out in a pyramid, but this is itself subjected to serial processing, jumbling the lines:

<i>not</i>	<pre> 7 6 7 6 7 8 5 6 7 8 5 6 7 8 9 4 5 6 7 8 9 4 5 6 7 8 9 10 3 4 5 6 7 8 9 10 3 4 5 6 7 8 9 10 11 2 3 4 5 6 7 8 9 10 11 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 </pre>	<i>but</i>	<pre> 5 6 7 8 3 4 5 6 7 8 9 10 11 5 6 7 8 9 3 4 5 6 7 8 9 10 7 1 2 3 4 5 6 7 8 9 10 11 12 2 3 4 5 6 7 8 9 10 11 6 7 8 6 7 4 5 6 7 8 9 10 4 5 6 7 8 9 2 3 4 5 6 7 8 9 10 11 12 </pre>
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Thus for the first time an entire Prelude adheres both to strict serialism and the principles of scafra.

Book 3 (2000)

Prelude 7 (pole note G#, dedicated to Brenda Rolton) is a loose palindrome. It features repeated bell notes in sets of eleven. The first time through, G# sounds softly alone eleven times. The second time, the other eleven notes of the chromatic scale, in the order of the scaprel row, are placed next to it one by one. The third time, an extra note is added, following the rotation of the row, then another and another, producing first two-, then three- and finally four-note clusters answering the bell note. Now the bell note itself disappears and the clusters increase to five notes. This is a scafra of thickening texture, producing an ever-changing sequence of chords which break out towards the climax into scattering sprays of notes (though the dynamic is held severely in check, rising no further than *mezzo-forte*). Then, after the 'turn' of the palindrome, the texture begins to gradually thin again, ending with the single soft repeated bell note of the opening.

Prelude 8 (pole note E \flat , dedicated to Jennifer Barnes) is a *retro spool out*. Six fairly long elements (several bars in each case) are laid out in the form

					6
				5	6
			4	5	6
		3	4	5	6
	2	3	4	5	6
1	2	3	4	5	6

The elements are named in the score (in order of appearance) 6 'Reflective', 5 'Lyrical', 4 'Dry', 3 'Mechanical', 2 'Fast' and 1 'Grandiose'. The music is serial. Each new element is livelier than the last, but the retro form ensures we are always on a downward gradient back to the reflective sixth element and the resting-point of its final E \flat .

Prelude 9 (pole note E, dedicated to Clare Shenstone) is a five-minute headlong rush, *improvisando*, with (uniquely in these pieces) no scafra processing of the notes at all. We hear no repeated passages and the music changes constantly. Where then is the scafra? It is in the underlying *pitch worlds* (the nearest traditional term would be 'harmonies'). I have imposed modes on the music – twelve of them – each containing 6 notes except for one of which is a single E (the pole note). Actually this hardly appears, banished except for four tiny passages towards the end which, timidly, one by one, try to assert themselves, only to be swept away. The scafra processing is done by dividing the music into 40 elements each of which is given one of the twelve modes. The modes are laid out in a frame advance so that, although the music itself never repeats, we can listen for the pitch worlds recurring.

produced in two different ways. In the first and last sections two low-register keys are silently depressed beforehand: any notes played will now produce sympathetic vibrations. In the penultimate section the ringing is done by quickly depressing the sustain pedal during the instant of silence following a loud chord.

The form is a long arch, ABCDCBA. The first A ('Cascading') contains rippling runs, low alternating with high. The following B ('Cool') is chordal with hanging notes. Then C ('Lyrical – Insistent') builds with repeating patterns. The central D section ('Grandiose') contains the above-mentioned embedded inverse pyramid. For the 'fall' of the arch the music is varied. C's patterns (now 'Belligerent') are corralled, backwards and upside down, into the low register. The return of B (now 'Brilliant') is much altered, with new chords and virtuosic added filigree. Finally A reappears (again 'Cascading') unchanged at first but extended. At the end the music – and with it the *Scafra Preludes* – disappears 'down a plughole' in the bass.

Prelude 11 matrix

			Beethoven (chord)				
							Beethoven (run)
		Chopin	Beethoven				
						Stravinsky	Beethoven
		Chopin	Beethoven	Schoenberg			
			Schumann	Stravinsky	Beethoven		
	Prokofiev	Chopin	Beethoven	Schoenberg			
		Ligeti	Schumann	Stravinsky	Beethoven		
	Prokofiev	Chopin	Beethoven	Schoenberg	Liszt		
	Gershwin	Ligeti	Schumann	Stravinsky			
Monk	Prokofiev	Chopin	Beethoven	Schoenberg	Liszt		
	Gershwin	Ligeti	Schumann				
Monk	Prokofiev	Chopin	Beethoven	Schoenberg	Liszt	Runswick	
	Gershwin	Ligeti					
Webern	Monk	Prokofiev	Chopin	Beethoven	Schoenberg	Liszt	Runswick
	Gershwin						

The making of scafra

I invented the term scafra in about 1989 to describe a technique I was developing in response to a problem composers had been facing for 30 years: what to do about serialism? None of the answers that had been thrown up in that time satisfied me. Not minimalism – *when will the sax solo start so it becomes interesting?* Not the new complexity – *how unplayable can you make it before someone notices there's nothing there?* Not the British new wave – *how many ways are there of re-writing Varèse?* Not holy simplicity – *how many ways are there of blanding-down a 19th century idiom?* The American indeterminists provided one way forward, while Berio and a few others were coming up with interesting developments from the base of serialism (Berio's technique of accruing material in works such as *O King* is a good example); but nothing struck me as a style to which I could nail my colours.

At that time I would have couched my problem in the following terms: *why do audiences find so little to hang on to in serial music?* The answer I came up with was, *because it never repeats*. The solution proposed by minimalism, which does nothing but repeat, seemed to me ultimately arid, interesting though some minimalist pieces undoubtedly are. To make things worse minimalism banished improvisation: it aped the gestures of popular music while abandoning the one thing that gave that culture its vitality. Scafra was my attempt to 'solve' this 'problem' – to marry repetition with serialism, to invent a rigorous system in which a passage, however complex, would at least be heard a second time, prompting recognition in the hearer. I also wanted to leave the door open for improvisation in my music. In these aims I was blaspheming against more than one sacred cow: firstly, against one of the main tenets of high serialism, *non-repetition*; secondly, against the principles of minimalism (while it still had any) by making my repetitions unpredictable; and thirdly, against a central pillar of all contemporary art music by even countenancing improvisation. But I – and any other young composer who thought at all – needed a way out of the impasse music was in. Precious few of us, in the end, found intellectually honest ways forward. Serialism had been turned into an extremism by the generation before us, but I was convinced it was not washed up yet. My original impulse in devising scafra – and I believe Berio's in his developments – was to *rescue* serialism at a time when many other composers were simply ditching it.

My first attempt at an extended scafra is to be found in an abandoned children's opera from 1989, *Taking the Air*. It is a spool out, frame advance and spool in of which the first five elements are the single notes of a rising minor scale, the last five a retrograde of the same notes. My first scafra in a published work is the second section of *From Two Worlds* (1990) – again a spool out, frame advance and spool in. From 1989-1995 these were the main components of scafra. I began the *Scafra Preludes* in 1995, and for Preludes 2 and 3 I invented the frame rotate. I completed Book 1 of the Preludes in July 1995 and a few weeks later – for my very next piece, *Moto Interrotto* – came up with the idea of

a pyramid spool out. Spools, in and out, the frame advance, rotation and the pyramid remain the 'classic' components of scafra, from which many of the others are derived.

I cannot claim to have invented scafra out of nothing: some components have existed independently for a long time: Rzewski's *Les Moutons de Panurge* (1969) is an enormous example of what I later came to call spool out and spool in, something I didn't think of until 1989; and Reich's *Clapping Music* is a frame rotate. But if we're looking for precursors we can go much further back than that: the *Adagio* which opens the last movement of Beethoven's First Symphony is a spool out. Outside the domain of music, similar constructions are quite common in poetry, beginning perhaps with T S Eliot ('O Lord Thou pluckest me out / O Lord Thou pluckest' etc in *The Waste Land*, 1922; and *The Hollow Men* and *Ash Wednesday*). I do claim, however, to have developed scafra into an internally consistent system used rigorously across a series of works: and the terminology is mine.

The genesis of Scafra Preludes

I always intended that the *Scafra Preludes* would be my '48' (by coincidence I was 48 years old at the time I wrote Book 1). Uncommissioned and written for pleasure (and because they demanded it) they accrued at a rate of a book every few years until in 2005 the final Prelude was completed. Anyone's '48' will aim to run the gamut of style and tonality within a strict formal regime, but because they took so long to write, these Preludes show a stylistic development much more radical than might be expected in a single work. This accident has, I think, turned out to their advantage: as the structures become more complex, so does the language; an effect I could not have achieved by trying.

I committed my life to serious composition quite late, in 1981 aged 34: thus I found myself by the mid-1990s becoming an established name in early middle-age: nationally and internationally known, published and recorded, with a growing body of work behind me – but virtually no piano music.* I set out, therefore, to remedy a gap in my catalogue with a large work which would also act as a stylistic manifesto. By 1995 I was beginning to grasp the potential of what I'd found in scafra. This was not, it appeared, a technical trick to be wheeled out occasionally like a *stretto* in a serenade, but something so rich in possibilities it could take its place at the centre of my technique, a unifying formal device. Scafra seemed to hold out the promise of inexhaustible possibilities, and thus, so far, it has proved.

I didn't anticipate at the start that the *Scafra Preludes* project would take a decade to complete. The reasons they did are several: the work had to be fitted in between commissioned pieces which had

* What little there was I later edited and collected in *Alison's Piano Book* (the first seven pieces).

guaranteed performances; also I was extremely busy with other occupations which not only made me money (a necessity) but were worthwhile in their own right: singing with Electric Phoenix, heading the Composition Faculty at Trinity College of Music, broadcasting, record producing, arranging, running summer schools and community projects... and then there were the life changes: my mother's death, moving house (twice), breaking up with a partner, getting together with another, and at the end of the decade, exhaustion and illness.

My technical assurance with scafra developed greatly during the decade of the *Scafra Preludes*. It still felt strange and new at the beginning. While making Book 1 I 'bent the rules' a great deal: on the repeat of an element I would change some of the notes for no reason other than effect; I would even miss out whole elements when it suited me. Actually I see now that I was doing these things when the music wouldn't 'go', got stuck, didn't flow in the way I wanted. Later my expertise in these areas improved and I found I could 'anticipate' the implications of a scafra process more precisely: 'rule-bending' adjustments became unnecessary. Prelude 1 also contains a middle section which is more or less freely composed, the first and last example of this in the set.

My skill with pole notes (a concept invented for the Preludes) also improved. I remember thinking after Book 1, 'All this is a bit crude – repeated D's, pedal A's, bell note C#'s – can I use this technique more subtly or should I ditch it?' The more sophisticated approach which begins with Prelude 4 (whose deployment of the B \flat /A# pole note I'm still particularly proud of) was a response to that challenge.

How to dedicate the Preludes caused me much thought, and I changed my mind many times over the years. The present dedications date from 2003 onwards when I abandoned the idea of honouring the Preludes' performers and decided instead in favour of expressions of admiration and affection toward friends. Prelude 1 bears no dedication because, with its clear exposition of the scaprel row and the isolated 'daryl' cryptogram at its centre, it is personal to me. For the rest, certain dedications have extra significance. Clare Shenstone was in my mind's eye as I played the improvisations from which Prelude 9 is refined (see 'A calendar of Book 3' below). Alison Truefitt was my new love when I incorporated her cryptogram into a new row for Prelude 10 (see this Prelude's analysis below). Prelude 12 is exceptional in that it was composed after the dedications were fixed: it 'inherited a dedicatee in advance'. Accordingly Michael Gwinnell's cryptogram appears alongside my own in the finale of the set. The fact that this Prelude's pole note is the same as its dedicatee's initial is a happy coincidence.

Scafra Preludes turned out in the end to be only half of my '48': *Third Sonata* is the other half. Those who know my music will quickly spot what's missing from the *Scafra Preludes*: melodic improvisation by the performer. This was of course intentional. There exists, I have argued elsewhere,* an *improvisation continuum* running from fully improvised music at one extreme, through music (eg

* *The Improvisation Continuum*, Dazzle Music 2004 and on my website.

jazz) where improvisation takes place within a composed structure; through music which is designed to be ornamented (eg the baroque *Adagio*); through music which is simply interpreted (eg the 'standard repertoire'); to music which is reproduced as strictly as possible with the minimum input from the performer (eg total serialism). My output spans the improvisation continuum from end to end, and such works as *Variations for String Orchestra*, *Cool>Warm>Hot*, *Lady Lazarus*, *accidental counterpoints* and *Island* contribute to a body of through-composed music at that place in the continuum where interpretation sits.* The omission of melodic improvisation from the *Scafra Preludes* was designed to show my technique 'bare', shorn of what in 1995 I considered a controversial aspect. Today I no longer think like that, and I have balanced the *Scafra Preludes* with *Third Sonata*, whose six sections span the continuum. *Third Sonata* sprang directly from *Scafra Prelude* No 10, whose pitch world it borrowed, and No 11, whose structure it shares. It too is imbued with scafra. And looking back I see that from one point of view it is *Third Sonata* that the *Scafra Preludes* are preludes to.

Compositional techniques in Scafra Preludes

The scaprel alphabet and row, cryptograms, pole notes

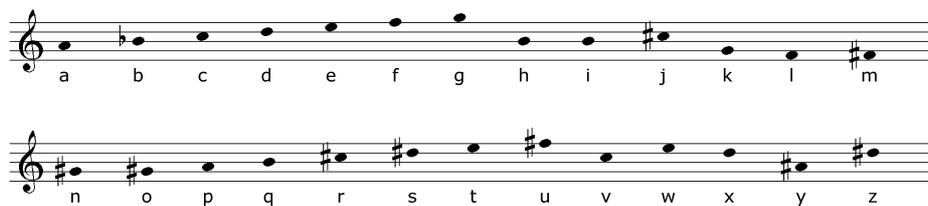
For the making of the *Scafra Preludes* I wanted to come up with a cryptogram of my name. By luck it consists of 13 letters, 12 of them different, the thirteenth being a repeated R. The idea came to me to invent a 12-note row from which materials for the Preludes would be derived. To this end I decided to develop an entire cryptogrammatic alphabet, with certain crucial properties:

1. The standard note-letters (including 'H' and 'S') should be preserved.
2. No duplicate notes should appear for the letters of my own name.
3. Each note should usually have two letters assigned to it. Unfortunately 12 into 26 doesn't go, so two notes would have to be assigned three letters each.
4. If possible, the resulting row made from the cryptogram of my name should show some symmetries.

The alphabet I developed fulfilled these criteria, the resulting row containing four very similar three-note isomorphs (an isomorph is a short group of pitches used as a structural building block).

* In my parlance 'interpretation' is simply a form of improvisation, because it constitutes a performance practice *additional to the printed text, done in real time*. Interpretation can be prepared, certainly, but in the end – in performance – it is done in real time: that is, improvised.

The scaprel alphabet is



The scaprel row is



I use other cryptograms during the course of *Scafra Preludes*. All are taken from the scaprel alphabet. In Prelude 1 'daryl' appears as an unadorned melody (page 17, system 5, bar 1). In Prelude 2 it reappears as the opening chord. In Prelude 10, in honour of its dedicatee, I use the cryptogram 'alison', from which I also derive a completely new row. In Prelude 12 I do the same with 'michael' (the 'h' of Michael is deliberately omitted: see the analysis of Prelude 12, page 53 of this volume).

I have continued this extension of the use of the scaprel alphabet in other works, notably *Third Sonata*, *Maybe I Can Have An Everlasting Love* and *Play That Weird Minor*.

The idea of giving the Preludes pole notes which would follow the scaprel row came at the very beginning, at the same time as the row's invention. The pole note acts as a centre of gravity for each Prelude (similar to the keynote in tonal music). It should be noted that pole notes are not scafra events: the Preludes could have been written without them and remained scafras.

Pitch worlds

In Western music church modes were universal as pitch worlds up to the Renaissance. Tonality, the system of keys and modulations, was well established by the end of the baroque era. Alternative systems began to spring up at the close of the 19th century, sometimes under the influence of non-Western musics. First free chromaticism, which resembles tonality in many respects but abandons its rule book, was introduced by Debussy. Then Schoenberg created free atonality, followed fifteen years later by serialism. In the mid 20th century Messiaen returned to modes as his pitch worlds, newly invented and independent of the old church modes. Microtonal pitch worlds were introduced by Ives and others. Still others abandoned pitch as an organisational factor in their music altogether.

Tonality In tonal music a scale has 7 notes replicated across all octaves. But if we think about it, these 7 notes exist *in the context of* the other 5, the remaining semitones of the chromatic scale, which are used for expressive purpose (as dissonance) and more importantly for modulation into other keys. In this sense the rules of dissonance and modulation (ie the other five notes) *define* tonality. When composers began ignoring these rules tonality was on the way out.

In *Scafra Preludes* I use tonality only in the stolen music of Prelude 11.

Free chromaticism, free atonality In both of these styles (and the borders between the two can sometimes become blurred – see Prelude 5) the composer establishes a hierarchy of pitches according to need: certain notes may be deemed to have precedence, others to be disallowed: and these conventions can be altered at will simply for aesthetic reasons.

Prelude 1 uses serialism for elements 1-5, thereafter free chromaticism.

Prelude 3 uses free chromaticism.

Prelude 5 uses a mixture of free chromaticism and free atonality.

Serialism In serialism, historically (at least from Webern onward) the 12 notes of the chromatic scale have absolute equality (*democracy*, some writers have termed it). No note has priority over any of the others, to the extent that in theory none can be played again until all the others have sounded first. In practice this is hardly ever true because transpositions, retrogrades and inversions immediately throw up exceptions. And in *Scafra Preludes* the rule is further subverted by the scafra processing of serial textures.

My serial technique developed exponentially during the period of *Scafra Preludes*. I had first employed it as a schoolboy, crudely and without much understanding: thereafter I used it intermittently and with increasing expertise until the mid 90s when I made the decision to deploy it in the Preludes. The original idea was to use the scaprel row simply to determine the pole notes, which it does throughout. Then the opening of Prelude 1 turned out serial, with a complete exposition of the scaprel row (though for the rest of the piece I resorted to free chromaticism). That gave me the courage to employ serialism again: Prelude 2 adopts serial techniques, fairly loosely but in a more thoroughgoing way than Prelude 1, with a spool out of chords transposed to follow the row and a serially organised frame rotate. In Prelude 3 I backed off, the only use of serialism being the co-option of the scaprel row to determine the transpositions of the freely composed material as it rotates. Prelude 4 isn't serial in any way: nor is Prelude 5, except in a fleeting rhythm during Pyramid 1.

Then things changed. Prelude 6 embraced *total serialism* – the serial processing of several other parameters besides pitch. This opened my mind to a new range of possibilities, and thereafter there is not a Prelude that does not betray serial thinking at some structural level (not necessarily that of

pitch). After this breakthrough (in 1997) my serialism can be said to be distinct from that of other composers, strict in a way the total serialists would not recognise, and personal to myself.

Modes and gamuts My consistent use of modes and gamuts is a comparatively recent development: only three of the Preludes use them (4, 9 and 12) whereas *Third Sonata*, written after the Preludes (at least the first eleven) is exclusively modal.

In my parlance a **mode** is any invented or borrowed scale used in accordance with the following conventions:

1. It has a set number of notes (usually between 5 and 8) replicated across all octaves.
2. These notes are invariable: you may use only them: any notes outside the mode are deemed not to exist.* You do not use notes outside the mode and (therefore) you do not modulate.†

I first consciously adopted a mode in the second movement of *I Sing the Body Electric* in 1984 (though I notated it rather strangely as a hybrid key signature). In the same piece (movements 1 and 2) I employed a related concept, *pitch quarries*, sets of exact pitches (not duplicated across the octaves) provided for the performer to choose from when improvising. Modes emerged next in *From Two Worlds* (1990) and *I Am A Donut* (1993); and from *Moto Interrotto* (1995, the piece I wrote immediately after the present Book 1) their use became consistent, either as an alternative to serialism or a complementary technique.

Prelude 9 uses twelve modes, each derived from a rotation of the scaprel row, each different, each made of 6 notes (except one which consists of a single E – the pole note).



2nd mode from Prelude 9

Prelude 12 uses two modes (and transpositions and inversions of them), one derived from the scaprel row, the other from the cryptogram 'michael'. The 'scaprel' mode in Prelude 12 happens to be the same as the second mode from Prelude 9 illustrated above.

* In other works of mine, particularly those which incorporate improvisation, notes outside the mode are designated *wrong notes*, and in certain circumstances can actually be played.

† You can of course transpose the mode up or down by some interval, or even invert it (in Prelude 12 I transpose and invert certain modes) but strictly speaking you will have made a different mode.

I dreamed up the idea of a **gamut** in No 2 of *Set of 5* (1996). This device, basically the extension of a mode beyond the octave, promises significant developments in the future. So far I have only used it four times, in *Set of 5*, *Flute Sonata* (2003) and the present Preludes 4 and 12.

In my parlance a gamut is a set of notes similar to a mode and used in the same way: but whereas a mode exists complete within an octave, a gamut extends beyond it. A gamut covers a range as wide as that of the instrument playing it, and in different octaves different notes will obtain. Compositionally (or in an improvisation) a gamut, like a mode, is invariable and not transposable.*

The great virtue of gamuts is that they imply different pitch worlds at different parts of their range, so the equivalent of modulation is possible without changing the gamut (an effect not available with modes unless you transpose them). I emphasise this in Prelude 4 by constantly restricting the tessitura of the two-part texture to fairly narrow areas of the keyboard.

Preludes 4 and 12 use gamuts arranged in consistent intervallic runs, logical at any point in the range compared to any other (the Prelude 4 gamut is borrowed from *Set of 5*). Alternatively a gamut can be randomly assigned across the octaves.



Central part of gamut from *Scafra Prelude 4*

Complex pitch worlds In Prelude 12 I adopt a system first used in *Flute Sonata*, where I derived a set of interrelated modes and gamuts from a single pitch quarry. In Prelude 12 I use two pitch quarries, the scaprel row and the cryptogram 'michael': from the scaprel row I derive two additional pitch worlds, a mode and a gamut; from 'michael' I derive a mode, a gamut and a row. The six resulting pitch worlds (two modes, two gamuts and two rows) are systematically deployed over the arch of the ABCDCBA form, and on many occasions repeated material is *translated* between different pitch worlds. In the 'Brilliant' section two pitch worlds (a row and a gamut) are used simultaneously in counterpoint.

Improvisation

There is no melodic improvisation in the *Scafra Preludes*, at least for the player: these pieces (see above, 'The genesis of *Scafra Preludes*') exist at the place in the improvisation continuum where

* In *Flute Sonata* (2003) I invert a gamut. Strictly speaking this inverted gamut is related to but different from the original.

interpretation sits. However all the music of Preludes 4 and 9, and of 10 and 12 partially, is worked up (often extremely *re-worked*) from improvisations I originally played into a sequencer. My technique of starting a composition with an improvisation began with *Lady Lazarus* (1985, singing, screaming and croaking into a Walkman cassette recorder in a hotel room in San Diego, California). It is now a central part of my style.

Dot music

Dot music is described briefly in the glossary. For a more detailed explanation see my article 'dot music' (Appendix to *Alison's Piano Book*, Dazzle Music 2004). Prelude 10 introduces this notation to the Preludes some years behind its adoption in other works.* In Prelude 12 I experiment with a new, hybrid notation, where the graphic rhythms of dot music are applied to a barred texture.

* – though there exists among my sketches of April 1997 an experimental dot music printout of Prelude 4, preceding my first published dot music piece (*Prelude with Trills*, now movement 2 of *dot music*) by nearly three years.

A calendar of Book 3

In this article the symbol ¶ denotes an idea that grew into a current Prelude; ◻ denotes an idea that grew into a published piece other than a Prelude.

The genesis of Book 3 of the *Scafra Preludes* was more complicated, by an order of magnitude, than any of the other Books, and its story has a general significance also in my life. I have told part of it already, in the article 'Landscape with slow pan' in the Appendix to *Alison's Piano Book*. This account covers a wider period of time and is rather less anecdotal than its predecessor.

Autumn 1998

I chose this time to start Book 3 of the Preludes for two reasons: first, I didn't have any other big piece on the go, and second, by starting now I could maintain the 2-year period at which books of Preludes were appearing (in this aim I failed). Throughout the time described below I was also teaching at Trinity College of Music in London and pursuing much (and varied) freelance work: among other activities, recording, mixing and writing the notes for my *Overlays* CD, travelling abroad to sing with Electric Phoenix, broadcasting, record producing, teaching on community projects and sitting on various committees.

The first spark of inspiration for Book 3 came on 30th October 1998 when I had **idea 1** ('precipitous')¶. My then partner, Mary King, had quarrelled with a very dear friend of mine of many years' standing, the painter Clare Shenstone. In a fit of anger (at whom? – perhaps at them both) I went to my studio and played a wild improvisation into the sequencer. I immediately recognised this as a possible *toccata* Prelude. I had already decided to reverse the order, established in Books 1 and 2, of *toccata*, *fantasia*, *notturmo*, for Books 3 and 4: therefore this would be Prelude 9. Within a couple of days I had edited and recomposed it (as described in the analysis on page 42 of this volume) with an E pole note as required for Prelude 9; and thus it remained through all the alarms and excursions described below. What you hear today is essentially what I wrote then.

[On 9th November I began working on *Concerto Zee*, a piece for improvising electronic cello requested from me by Phillip Sheppard, never in the end performed. Work on this piece continued through the events described below and ended in February 1999.]

On 1st December I had **idea 2** ('retro')¶ for a retro spool out. Like idea 1 it was improvised (but this time with more deliberate planning) and recomposed over the following few days.

At this moment, when I was in sight of having two thirds of Book 3 nailed down, I made a mistake which was to have repercussions for many months and cause me a great deal of worry and extra work: I chose the piece I was writing as Prelude 7, not 8, an unaccountable thing to do as it was discursive and energetic. Prelude 7, in the plan for the set of Preludes, should be still and quiet – a *notturmo* to balance Preludes 3 and especially 6. What possessed me to put idea 2 ('retro') in this position I don't know. I expect that I decided before beginning work that I was writing Prelude 7 and then switched off my antennae, which would have alerted me immediately to the fact that what was emerging was a *fantasia*, not a *notturmo*.

The concept of pole notes as deployed in *Scafra Preludes* is central to this story. I took the decision at the very beginning of the planning process that the pole notes of successive Preludes would follow the scaprel row – before a note of any Prelude was written. Thus when I came to start Book 3 I knew that, whatever actual music I ended up putting into them, Prelude 7 must have a pole of A \flat (or G#) Prelude 8 E \flat and Prelude 9 E. This was an invariable rule. None of which should have been a problem: nor was it until autumn 1999 when I belatedly started trying to reverse the positions of Preludes 7 and 8: then suddenly I had a major problem because if I reversed the order of two Preludes the order of their pole notes would also be reversed, *which cannot happen*.

But in December 1998 I was in love with idea 2 ('retro') and I ignored a tiny niggle in the back of my mind saying something was wrong. I completed the piece with an A \flat pole note, printed it up and installed it as Prelude 7, a position it held until 23rd October 1999.

On 7th December I had a further idea, **idea 3**, for Prelude 8: this idea was soon abandoned.

Christmas 1998

Mary King and I used to go to Cyprus each year for a Christmas break: we did this from 1996 to 1998 (I went again alone the following year – the Millennium). On 20th December 1998 in Paphos I made a list of ideas for future Preludes. These included a frame advance of thickness; a scafra of (what I then called) harmonies; a frame reverse; and a many-sectioned Prelude-finale employing multiple scafra techniques.* All these ideas were eventually put into practice in the Preludes.

[On the afternoon of 22.12.98 I composed *Dicing with De'ATH* for the *Overlays* CD, sitting on the carpet of our hotel room while Mary slept on the bed beside me. I made the piece by casting a 12-sided die many dozens of times and arranging the resulting numbers into duration regions.]

* This also featured an unchanging 'central element' appearing in every line of the matrix: an idea which was crucial in my process while composing Prelude 12. In the end I cut the central element from all but three of Prelude 12's seven sections.

On 27th December in Paphos I had **idea 4** for a two-part Prelude 8, an *improvisando* introduction followed by a gamelan-style main section. I wrote this idea down as text in my journal.

Spring 1999

Back in London, on 4th February I looked again at idea 4. The next day I sketched the introductory passage but (probably because of pressure to finish work on *Concerto Zee*) didn't continue any further. I liked this idea, however, and retained it as a candidate for possible inclusion in Book 4. In the end I never used it.

[On 24th February I completed *Concerto Zee*. March was spent making the *Overlays* CD. From 7th April I was working on *Rintrah Roars*, a Blake setting for Nicholas Clapton.]

Summer 1999

By 30th June I was again thinking about a possible Prelude 8 and had **idea 5**. This was soon abandoned. But a week later, on 5th July, I had **idea 6 ('bell notes')**[¶]. This was composed in great excitement in a single rush that afternoon, with an *E♭* pole note. A printout was completed on 13th July.

Thus on 13th July 1999 a first draft of Book 3 was completed consisting of Prelude 7: Idea 2 ('retro'); Prelude 8: Idea 6 ('bell notes'); and Prelude 9: Idea 1 ('precipitous'). This draft was printed up and sent to Nick Ray, a student of mine at Trinity College of Music in London who had given fine performances of Books 1 and 2, and whose opinion I greatly valued. A covering letter was written asking his advice, the contents of which reveal that the niggle in the back of my mind had not gone away:

Dear Nick

Here's Book 3 – or is it? The remarks that follow will reflect my uncertainty, in certain moods, about No 8.* While I was writing it, and many times since, I've been in love with it: with its austerity, its gorgeous sonorities, its inevitable progress, and the two glorious moments when the *E♭* is suddenly not there – and then it's back. But at other times I lose my nerve: is it too long, is it simply boring, will 90% of listeners simply not 'get it'?

I had thought that No 8 would be analogous to Nos 2 and 5: portentous and full of contrasts, with big moments; but returning after a gap of some months to Book 3 I realised that No 7[†] doesn't allow that. No 7 (being serial) is in many ways a pair for No 6, but although it starts and

* idea 6 ('bell notes') now Prelude 7

† idea 2 ('retro') now Prelude 8

ends gently the impression you're left with afterwards is of virtuosic speed and contrast. And of course No 9 is enormous and fast: so No 8 has to be the still one of the set. Realizing this made me abandon my previous plan for No 8 – I'd written an introduction plus a formal plan for the main part: this may now re-surface in Book 4, suitably altered for a new pole note.* Anyway I went back to some ideas I've jotted down over the years for possible Preludes and came across a scafra of *thickness*. As soon as I re-read this idea I fell in love with it – it's a very neat concept with each chord turning out to be 5 row notes rotated, though that's not how I arrived at them.

What do you think? There are possible adjustments I could make: I could shorten it (though this would ruin the formal elegance – oops! – *elegance!*)[†] – I could make it get louder at the climax, grow very big and shut down again – but doesn't this coarsen it? – couldn't a good pianist like you keep people enthralled by a remorseless growth just to *poco mf*? – or I could add a new thread after, say, 77 bars with quaver or triplet movement in filigree for a while, dying away as the music subsides ...

I truly don't know. After the – well I suppose parody (very gentle) of No 7 and before the raging of No 9 I love the austere beauty of No 8: but will it work? Actually of the options I outline above the last is the only one I'm really willing to contemplate. The others are not on. I suppose I'm hoping you'll like it as it is, but I entreat you to be honest and I'll change it if we agree something might improve it.

Love

I didn't send Nick this letter: a less 'vulnerable' and more positive version was substituted for two reasons: 1) I bottled out of revealing my insecurities to him; 2) the very act of writing my concerns down cleared my mind and began the process of finding solutions. With typical perspicacity Nick in his response expressed regret that the present ordering produced an asymmetry with Books 1 and 2. Perhaps it was his disappointment at the ordering as it then stood which gave me the courage to begin to think of changing it.

[By this time I was becoming aware that something was very wrong with my relationship with Mary King. In July she told me she had fallen in love with a man she met the previous January, and in late September our fourteen-year relationship ended with her moving out of our house. Meanwhile I was contracted over the July/August period to teach at the Dartington Summer School. On 31st July at Dartington, despite my sadness and worry, I began to plan a cello sonata for my improvising friend Nikos Veliotis: in 2001 this would emerge as *Sonata (Gracing)*.]

* this refers to Idea 4

† Nick hated me to call his own compositions 'elegant', which he took as a synonym for 'gutless'. I always intended the term as a compliment.

Autumn 1999

[On 9th September (just as Trinity's new academic year was starting) I began work on a commission for the National Federation of Music Societies, my children's game piece, *LOBY*.]

On the same day (9th September) I returned to my problematic Book 3 and had **idea 7** for a replacement Prelude 7: it was soon abandoned, but the existence of this idea reveals that by this date at the latest I had misgivings about Book 3. For the time being, however, I did no more work on the Preludes until 23rd October –

[– the day on which, incidentally, I received a phone-call inviting me to participate in a BBC Symphony Orchestra community project: which would seven months later result in *World upon World*.]

Perhaps inspired by the prospect of a BBC commission I returned to **idea 2 ('retro')** and transposed it to accommodate an *E \flat* pole note. This would enable it to be moved from Prelude 7 to No 8. Some tessitura and voicing adjustments were necessary, but the process worked well. I had finally arrived at the current Prelude 8. Now all I needed was a Prelude 7. Might idea 6 ('bell notes') also be transposed? The next day, for some reason, instead of trying this I had **idea 8** for a new, *notturmo* Prelude 7: it was soon abandoned.

[From 25th October I began work on further commissions. *Two Antiphons* was written for the Birmingham choir Ex Cathedra and its conductor Jeffrey Skidmore. Following that I was to compose a piece for the vocal consort I Fagiolini.]

The day I finished *Two Antiphons*, 1st November, I had **idea 9 ('dot music')** Ω not thinking of the Preludes at all but of the I Fagiolini piece I must write next. This idea, I found, didn't work as vocal music

[from 12th November I was working on *Sarabande*, but the material I used was not idea 9]

but on 14th November I adapted it for a replacement Prelude 7. It was quickly finished but I soon rejected it (because, much as I liked it, I noticed that it isn't actually a scafra). Idea 9 became *Prelude with Trills* and was performed under that title by Julian Jacobson. Then in 2001 it was recruited as movement 2 of *dot music*.

On 16th November Nick Ray wrote to me expressing his own reservations about idea 9. I now returned, four eventful months after presenting Nick with the first draft of Book 3, to **Idea 6 ('bell notes')** which – at last – I transposed up a fourth. The results were pleasing but while playing the Prelude through I realised with a jolt that this method of simple transposition was not valid: had I originally started the scafra processing from the new G# pole note different pitches would have resulted. (This had not been the case with the 'retro' Prelude, which transposed readily into its new

pole, breaking no rules.) My first temptation with the bell note Prelude, to 'just leave' the transposition as it was, was immediately followed by the realisation that I couldn't do that, not now. Since the technical advances of Book 2 (see 'The genesis of *Scafra Preludes*' above) my relationship with the Preludes had become too rigorous for 'cheating' to be countenanced. Did I have the energy to completely recompose the bell note Prelude from scratch?

Winter 1999/2000

[At Christmas, unable to face the 'festivities' at home alone, I returned to Cyprus where my despair and exhaustion both received some relief. On my return I did not at once address the problem of the bell note Prelude – perhaps I was avoiding it – but on 10th January I adapted idea 9 (now *Prelude with Trills*) for flute and piano under the title *Pipe Dreams*. Then the necessity to start *World upon World* became pressing, and on 28th January I began. This was high pressure work – I had to write a 30 minute piece and prepare the orchestral parts, all in an 8 week period without the luxury of abandoning my Trinity teaching –]

– so it was perhaps unexpected when on 10th February I suddenly had **idea 10 (slow pan)** ^Ω for a replacement Prelude 7. This was finished quickly and sent to Nick Ray. Nick reserved judgment; soon afterward he confessed his preference for the bell note Prelude – a preference which I came to share. But I still liked idea 10 ('slow pan') and later recycled it as *Landscape with slow pan* (see the article of that name in the Appendix of *Alison's Piano Book*).

Spring 2000

On 6th May – still during the period when I was completing *World upon World* (it was finished on 24th May) – I finally gave in to the necessity of recomposing Idea 6 ('bell notes') on a G# pole. The process of adjustment was fiddly and cost me 2 days – longer than the original had taken to write. This version ought now to have been the only candidate for Prelude 7, but still I hesitated: what if the old 'cheating' version sounded better? I decided that, whatever happened, the better-sounding version should be used, whichever that should turn out to be, and damn the consequences. If the 'wrong' version proved superior I could always console myself in the knowledge that at least I had done the hard work of preparing a 'proper' version. The next day Nick Ray played both versions to me in a practice room at the old Trinity College of Music Annexe in Marylebone, central London. We both instantly knew that the 'proper' recomposed version was superior, and it was joyfully instated as Prelude 7. Sunday 7th May, 2000: after an 18 month gestation Book 3 was now finalised and its ordering fixed.

2001/2

After this nothing happened to Book 3 for a long time. From its inception it was intended that Nick Ray would give its first performance, but for some time he was too busy. Another student of mine, André Shlimon, learned and performed Preludes 7 and 8 for his undergraduate Final Recital at Trinity College of Music in June 2001.

During the autumn of 2001 Nick admitted to having some trouble with Prelude 9, partly due to lack of practice opportunities and partly due to the Prelude's notational oddity (it was at that time scored against type in an arbitrary 4/4, whereas it is actually in a free non-metrical *improvisando* style). The possibility of a performance of Prelude 9 seemed to be receding into the distant future, and in the circumstances Nick agreed that I should ask Yukiko Shinohara to learn Book 3 for a February 2002 premiere. Soon afterward (autumn 2001) Nick and I had a falling out and permanently ceased contact with one another.

Now Yukiko Shinohara began learning Book 3 and found exactly the same difficulties with the notation of Prelude 9 as had Nick. To address this issue, I prepared four new versions for Yukiko to consider, which she did at a rehearsal on 27th January 2002. The changes were notational only: the music as it sounds was the same as in October 1998.

- 1) I notated the piece exactly as the original but removed all barlines
- 2) without barlines and with any long passages of redundant rests removed
- 3) without barlines and with all rests removed
- 4) without barlines or rests and with stems removed: a *dot music* version

Even before presenting the four versions to Yukiko I knew I preferred the second, and (probably influenced by me) Yukiko also chose it. I edited this version and inserted it into the text of Book 3. At the same time, also at my prompting, Yukiko showed me by playing through Prelude 9 certain places where the music was unnecessarily difficult. I removed a couple of dozen notes.

On 13th February 2002 Book 3 of *Scafra Preludes* was premiered by Yukiko Shinohara in the Peacock Room of the new Trinity College of Music at King Charles Court, Greenwich.

Full circle: confluences and references back in Prelude 12

Prelude 12 was always intended as a summation of the *Scafra Preludes*, of what they stand for and what they achieve. As far back as I can remember (certainly while planning Book 3) I wanted to pull into my finale as many scafra processes as possible. If the Preludes in total were intended as a compendium of techniques, Prelude 12 was to be a 'distillation of the compendium'. In this I am following a long tradition, in respect to collections of pieces with generic titles and sets of variations. Elgar in the *Enigma* does a similar thing. What we composers want is not just a rousing finish but a movement which sums up the whole argument, says 'now then!' and collects to itself, mother-hen-like, its brood.

Direct references

In five of the sections of Prelude 12 there is a direct reference back to a preceding Prelude:

1st and 2nd 'Cascading' Title and music hark back to Prelude 5's Pyramid 2, though Prelude 5's 'cascading' is wetter.

'Cool' The technique for the generation of the serial texture used here is so close to the one used in Prelude 6 as to be an obvious and audible homage.

'Grandiose' This instruction occurs twice elsewhere in the Preludes: in Nos 2 and 8. To my mind the closer link is to Prelude 2, whose 'grandiose' music is similarly climactic – and similarly traditional in musical and pianistic language.

'Brilliant' The technique of a serial background and an improvisando foreground is a direct reference to Prelude 10.

Other references

There are many places in Prelude 12 where there is a less overt but still audible reference back, sometimes for many bars, sometimes only fleetingly. In other places a structural similarity exists which is important but not obvious to the listener. Listed below are the ones I have noticed.

BOOK 1 The central section of Prelude 12, 'Grandiose', has a completely new structure (see below) but outside that domain it reeks of Book 1. Despite the fact that it is made with modes, which don't appear anywhere in Book 1, I deliberately adopt a 'quasi free chromatic' sound for 'Grandiose'. Similar stylistic remarks can be made about 'Lyrical – Insistent' and 'Belligerent'.

Prelude 1 This starts 'in D', as does 'Grandiose' (which adopts D for two further reasons: D is the traditional key of celebration; D is 'daryl').* The second 'harmony' in 'Grandiose' (the second chord) is the very same as that in Prelude 1 (bar 3 of the piece: something I didn't myself notice for a year after writing Prelude 12). Prelude 1 moves to a middle section around an E pedal: the 'mical' music in 'Grandiose' is in a sort of E tonality.

Prelude 2 The typical rhythm of Prelude 12's 'Grandiose' (short, long) is the same as that of Scafra A in Prelude 2. So is the declamatory style. The final 'plughole' moment of the second 'Cascading' is reminiscent of the end of Prelude 2. The 'mical' music in 'Grandiose' moves to and around A (Prelude 2's pole note and an audible structural pivot therein). The pauses in an empty stave are a common notational convention. The strobing in 'Cascading' mirrors that in the final spool in of Prelude 2.

Prelude 3 'Grandiose' adopts Prelude 3's structural device: relatively long elements which return in unexpected orderings; the techniques used – rotation and an embedding process – are different, but the effect is similar.

BOOK 2 The outer 'Cascading' sections of Prelude 12 hark back in musical language to the first two Preludes of Book 2. 'Cool' acknowledges a debt to Prelude 6. Moving on to Prelude 12's middle sections we find ourselves back in Book 1. It is not until 'Brilliant' that Books 3 and 4 come into play.

Prelude 4 Although 'Cascading' sounds more like Prelude 5, the use of the extremes of the keyboard – the inexorable movement *outwards* – reminds us of Prelude 4. Also the use of gamuts is restricted within the Preludes to Nos 4 and 12.

Prelude 5 The extra note at the 'mical' isomorph in 'Cascading' is the same F that is damped in Pyramid 3 of Prelude 5. Some of the louder chords in 'Brilliant' ring like those in Pyramid 1, and the late pedalling reminds us of the re-pedalling in the earlier piece. Preludes 5 and 12 are the only ones to use extended piano techniques (the stopped note; the resonant silence).

* As I refined Prelude 12 in the summer of 2005 I found myself in 'Grandiose' moving toward purer and purer triadic harmonies, especially in the 'daryl' passages. At first I feared this would produce bland music, but in fact the process made it sound stronger. I also worried that the 'happiness' of 'pure D major' would render the 'mical' passages too gloomy by contrast, but to my surprise the opposite effect was achieved: the 'minor tonality' of 'mical' was ameliorated.

Prelude 6 'Cool' sounds extremely like Prelude 6: unsurprisingly as it is made using the same total serial techniques (as is the chordal stream in 'Brilliant').

BOOK 3 The use of pitch-serialism in Book 3 is a mixture of harmonic and melodic, unlike Book 2's Prelude 6 whose melodic aspect is a kind of side-effect of its serial working out. Prelude 12's pitch serial sections, 'Cool' and 'Brilliant', are made in the same way as Prelude 6 ('Brilliant' has a non-serial melody superimposed).

Prelude 7 There is not much similarity between Preludes 7 and 12: No 7 is a monoculture which does one thing obsessively, while No 12 contains many mansions. But Prelude 7's central broken chords do perhaps sound like lonely and isolated versions of 'Cascading's' isomorphs: which might be expected since the notes of the 'daryl' cryptogram pervade both.

Prelude 8 Despite the fact that it contains the section headings 'Grandiose' and 'Lyrical', Prelude 8 is superficially very dissimilar to No 12: it has an *improvisando* feel (justly, for its material was initially improvised) while the textures of Prelude 12 are highly structured (only the melodic stream of 'Brilliant' stems from an improvisation). Because of this the two Preludes might not seem at all alike, but one major structural device unites them, enough even to make us think of them together: the use of sudden silences. This is so central to both Preludes as to render them almost a pair. Juxtapositions – will we discover new sounds after them, or familiar ones? – this quintessential aspect of scafra is never more clearly exposed than in these two Preludes.

Prelude 9 There appears to my ear to be no similarity between Preludes 9 and 12, outside that which you would expect of two works for piano by the same composer. There is certainly no analytical link. For me this is entirely appropriate for a piece – see also the analysis of Prelude 9 below – whose entire rationale is anger, absence and alienation.

BOOK 4 In discussing Book 4's similarities to Prelude 12 we are in effect restricted to the consideration of Prelude 10: No 11, containing as it does nothing but quotations, is a world unto itself; and Prelude 12 is what we're talking about.

Prelude 10 There are great structural similarities between Prelude 10 and 'Brilliant', though the obvious differences in mood and energy between the two make our appreciation more analytical than emotional. Both are constructed in two streams, the 'background' being a set of serially generated chords, the foreground a repeating scafra-processed melody. Both melodies were originally improvisations: both have been adapted to fit a particular pitch world (in Prelude 10 a row, in 'Brilliant' a gamut). And both are notated as dot music.

Prelude 11 There exists one link between this and Prelude 12: the reference in both – the act of quotation in Prelude 11, that of affectionate pastiche in Prelude 12 – to the slow movement of Prokofiev's 7th Piano Sonata.

New developments

Prelude 12 is not all about harking back: indeed it contains several structural developments not seen previously. The resonant silence of the 'Cascading' sections is new; 'Lyrical – Insistent' and 'Belligerent' involve a particularly fluid use of interlocking scaffolds; the embedded inverse pyramid of 'Grandiose' is an important new structural development; and 'Brilliant' – in addition to its late pedalling effects – introduces a new sound world based on the counterpoint of two different pitch worlds.

Analyses

Prelude 1

July 1995, no dedication

Pole note D. Form: arch ABA. Frame advance with spool out and spool in; free middle section; loose retrograde of the opening scafra.

1st section

1st 5 RH notes + LH low D are not in the scafra
 1st statement of element 1 is omitted
 Spool out to a frame of 7; frame advance to 16; spool in
 Elements 1-5 are an exposition of the scaprel row

Middle section (Suddenly slower)

A freely composed expansion of element 16
 Some spooling out (not rigorous)
 A single-line melody, loosely palindromic, containing the first five notes of the scaprel row ('daryl') and its retrograde

At page 17, system 4, bar 1, the left hand E natural was added in April 2004.

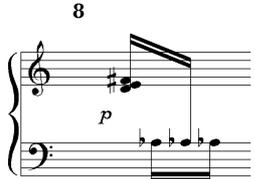
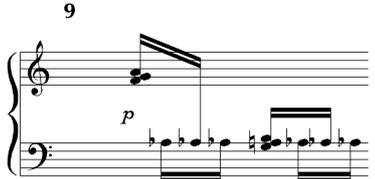
3rd section (Gradually faster...)

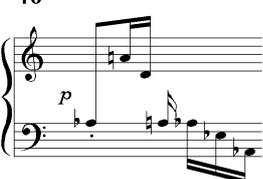
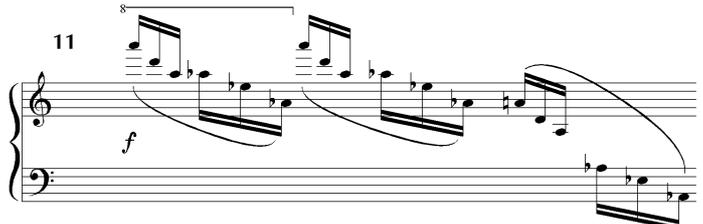
Varied retrograde of 1st section; starts slowly, gradual accel to tempo primo
 Elements 16, 12 and 10 omitted
 Last statement of 1 present
 Last 5 RH notes + LH low D not in scafra

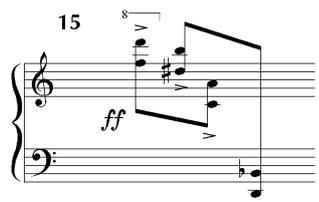
Prelude 1 elements

1  2  3 

4  5  6 

7  8  9 

10  11  12 

13  14  15 

16 

Prelude 2

July 1995, dedicated to John Underwood

Pole note A. Form: two intercut scafras. Scafra A spools out to a frame of 12; Scafra B rotates three times, then strobos and spools in.

☞ in an empty stave (page 20 systems 3 and 4) implies a complete cessation of all sound.

Scafra A This is a spool out to a frame of 12 chords (A1–12) made from the first 5 notes of the scaprel row ('daryl') and voiced as a contraction of the melody from Prelude 1 (page 17 system 5 bar 1). The chords are transposed so that their top notes follow the scaprel row. The voicing gradually expands, both vertically and horizontally, but the relative pitch content is unchanging. The spool out is truncated: A1–3, A1–5, A1–7 and A1–9 are omitted; from A1–8 onward all statements are interrupted by scafra B.

Scafra B This is an 8 note series: $E\flat$ E F# G $A\flat$ B C $D\flat$, rotated and expanded.

B1	$E\flat$	E	F#	G	$A\flat$	B	C	$D\flat$	
B2		E	F#	G	$A\flat$	B	C	$D\flat$	$E\flat$
B3			F#	G	$A\flat$	B	C	$D\flat$	$E\flat$ E etc

There are three full rotations (B1–B8) with an extra B8 and B1 inserted before the second complete rotation (page 21 system 1) and an extra B1 and B2 inserted before the last complete rotation (page 22 system 1); from page 21 system 3 onward some statements are interrupted by scafra A. For an explanation of the final strobe and spool in see below.

page	system	marking	scafra A	scafra B
20	1	Slow faster	A1	B1
	2	tempo primo faster	A1-2	B2
	3	tempo primo faster	A1-4	B3, B4, B5, B6
	4			B7
	5	tempo primo faster	A1-6	B8, B1
21	1	tempo primo faster	[A1-8] A1-2	B8
		tempo primo faster	A3-4	B1
	2	tempo primo faster	A5-8	B2, B3
	3	tempo primo faster	[A1-10] A1-2	B4/
	4	tempo primo faster	A3-4	/B4, B5/
	5	tempo primo <i>pesante</i>	A5-8	/B5
22	6	tempo primo Grandiose	A9-10	B6
		tempo primo rit ...		B7
	1,2	Grandiose		B8
	3,4	Slow and stately	A1-11, pedal A's	B1, B2
	5	tempo primo	[A1-12] A1-2	B1/
	6		A3 A4	/B1, B2/
23			A5-8	/B2, B3/
	1			B3 B4/
			A9-10	/B4, B5/
			A11	/B5, B6/
	2 2,3,4	<i>a tempo</i>	A12, octave A's	/B6, B7, B8 (strobe and spool in)

The pedal As at page 22 system 3 'Slow and stately' are extraneous to both scafras, as are the octave As before the *a tempo* on page 23 system 2. They are of course statements of the pole note.

The final strobe and spool in The strobe is between pitch and rhythm, which repeat at different lengths so that the pitches get a different rhythm every time they repeat. It begins at page 23, system 2, *a tempo*. The rhythm and pitch components of the process follow slightly different trajectories.

Rhythm: the strobe is 14 semiquaver quintuplets followed by a quintuplet rest, played three times. The spool in which follows is 13, 12, 11, 9, 7, 5 and 3 quintuplets, each followed by a quintuplet rest.

Pitch: the first 3 notes of this passage are the end of B6, which began earlier and was interrupted. The next 8 notes (starting with C) are B7 complete. Then the strobe begins: B8 is played seven times through, its eight notes strobing against the rhythmic pattern of 14 quintuplets plus rest, then 13, then 12. Thus the pitch strobe continues into the rhythmic spool in. At the start of the rhythm element with 11 quintuplets the pitch spool in begins, also with eleven notes, and the two coincide from this point onward (11 quintuplets, 11 notes etc).

Last two complete B8s	C#	D#	E	F#	G	G#	B	C	C#	D#	E	F#	G	G#	B	C
11						G#	B	C	C#	D#	E	F#	G	G#	B	C
9								C	C#	D#	E	F#	G	G#	B	C
7										D#	E	F#	G	G#	B	C
5												F#	G	G#	B	C
3														G#	B	C

Prelude 2 was revised twice. In the late 1990s (I can't be more accurate about this because none of my notes is dated) several inconsistencies in the processing of both the scafras (A and B) were corrected. Then in April 2004 while inputting the music to the computer some further editorial changes were made. I noticed mistakes in the working out of the scafras at two places, the B5 at page 21 system 5 and the final strobe and spool in, and corrected both.

Prelude 3

July 1995, dedicated to Suki Pay

Pole note C#. Form: rotating frame, constantly transposed, over C# bell note. 4 statements and coda.

1st statement	1st pitch of element 1	D#	element order	1 2 3 4 5
2nd statement	1st pitch of element 1	G#	element order	5 1 2 3 4
3rd statement	1st pitch of element 1	B	element order	4 5 1 2 3
4th statement	1st pitch of element 1	G	element order	3 4 5 1 2
coda	1st pitch of element 1	D#	element 1 only	

The transpositions of the four statements make a retrograde of notes 2-5 of the scaprel row, transposed down a tone.

Element 1 is slightly different at each statement (the coda is the same as the 1st statement).

In the 3rd statement element 5 is also different.

In the 4th statement element 3 is also different.

In elements 1 and 3 the low pedal-note octave is always C#, regardless of the transposition of the statement.

The 3rd statement is not complete (1 phrase omitted).

The 4th statement is not complete (2 chords omitted).

Prelude 3 is the least rigorously constructed Prelude of the whole set. Nowhere else was I this lax (apart from the central section of Prelude 1, which was in any case not intended as a scafra – it was freely composed using loose spool out techniques). Rotation (the only technique used here) is perhaps the least typical scafra device, and the variations I introduced into the statements are redolent not so much of scafra processing as of much freer forms (this is not true of those in Prelude 2). It is surprising, therefore, how absolutely scafra-like Prelude 3 is.

Prelude 3 elements

$\text{♩} = 66$ *Piacevole* 1 2

piano sempre

3 4 5

Detailed description of the musical score: The score is for a piece in 5/4 time, marked 'Piacevole' with a tempo of quarter note = 66. It is divided into five numbered sections. Section 1 (measures 1-4) begins with a piano introduction and a steady bass line. Section 2 (measures 5-8) features a complex melodic line with triplets and sixteenth-note runs. Section 3 (measures 9-12) continues with similar rhythmic patterns. Section 4 (measures 13-16) includes a triplet of eighth notes. Section 5 (measures 17-20) concludes with a final melodic phrase. The score includes various musical notations such as slurs, ties, and dynamic markings.

Prelude 4

April 1997, dedicated to Keith Tippett

Pole note B \flat . Form: two-part invention, canon cancrizans. The first voice is a frame advance and spool in, the second an exact retrograde of the first.

The scafra was devised from the following model:

8va ...

ff 2nd frame begins

1st frame ends

loco

8 bassa

8 bassa

spool in from here

The model began as a free improvisation which I later adapted to the following gamut:*

Scafra processing The first voice (RH at the beginning) starts with a frame of 19 elements (single notes and two note chords). The following frame is juxtaposed without a rest: the frame advance is two elements. From the end of this second frame the frame advance is *fixed at the juxtaposition*: that is, the number of elements added at the end of each frame is the same as that subtracted from the beginning of the following one; and a rest is inserted between them aggregating to the same number of semi-quavers. This system continues for the whole length of the scafra, the amount of frame advance in each case being freely composed. The number of advanced elements at each fixed juxtaposition (ie all juxtapositions except the first) is as follows:

2 2 4 4 2 2 5 4 4 2 2 5 4 5 2 2 2 3 2 2 2 2 2 2 5 3 7 9 6 9 9 9 6 9 4

Finally the first voice spools in to a single note. The rate of spool is 5 notes for the first line and 1 note for each of the subsequent eleven lines.

The second voice is an exact retrograde of the first. Toward the middle of the piece the two voices mingle in the same register. At the end of the first bar of page 34 the 'crossing' – the middle of the Prelude – occurs. One bar later the notated first voice dips below the second and becomes the LH.

The retrograding was done in the Logic computer program by performing an action called 'reverse position' which turns the music backwards in a slightly different way from the traditional method. Historically the rhythm  has been retrograded as  but Logic, while retaining each note's original length, reverses its *starting point* relative to the surrounding starting points. Thus  is split into 4 equal units of a semiquaver and read as

1	2	3	4
start of a quaver	no start	start of a semiquaver	start of a semiquaver

* it appears on the previous page in its post-adaptation form.

It is reversed as

4	3	2	1
start of a semiquaver	start of a semiquaver	no start	start of a quaver

– that is, 

I have chosen to retain this system of retrograding.

Between August 2004 and January 2005, as a diversion from *Maybe I Can Have An Everlasting Love*, I revised Prelude 4. One aspect of the revision was editorial: in 1997 I had made a ‘performing version’ of the middle part of the piece, eliminating duplicated notes and laying out the music for playability rather than as a clear exposition of the voices. In 2004 I reversed this decision and implemented the current layout where the voice-leading is paramount and the performer, not the composer, has to make the passage playable. This policy goes completely against a principle exemplified in all my other music, including Prelude 8 below: that ease of reading, not analytical clarity, is the first duty of a printed score. I apologise to Prelude 4’s performers.

Another aspect of the revision came as a direct result of this work of separation. The voice leading in the middle section, as it had stood since 1997, was so jumbled that I had to do a new analysis to disentangle it, and this threw up anomalies. Prelude 4 is important both within the Preludes and as a measure of my development, representing a first move toward more rigorous structures.* After the freer forms of Book 1 it inaugurates the use of what might be called *undiluted* serial processes: in this case strict retrograding and a bare frame advance unadorned by conventional pianistic or gestural devices. But as it stood in August 2004 Prelude 4 was a mess. My original impulse in 1997, to make an integrated structure, had been achieved globally but not at the level of detail: there, decisions had been arrived at arbitrarily where, I now saw, a pattern could have been imposed; moreover, actual mistakes had been made in the working out of the frame advance. This can perhaps be forgiven: the final revision in 2004 proved one hell of a job: it took me longer to correct the Prelude than to write it. In 1997, had I spotted the mistakes, I might have been tempted to leave them uncorrected; but in the intervening years I had become intellectually tougher (and my illness had given me more time). Had the older Runswick been able to show the younger his mistakes he would certainly have recognised them; whether he would have taken the time to fix them is another matter.

Toward the end of the revision, in late December 2004, I decided to resist the temptation to do major rewriting of Prelude 4 and restricted myself to the correction of actual mistakes, plus the rationalisation of the existing fixed juxtapositions: to do more would be to forge an anachronism. I could envisage a more sophisticated structure now, but only with the benefit of hindsight and an improved technique hewn out of the rock from which Preludes 5-12 and *Third Sonata* were made. Accordingly (and remembering the example of Wordsworth) I declined to make large changes. I could have serialised or scafra processed the amount of frame advance, but I recognised that such an idea would not have occurred to me in 1997 and refrained from imposing the ‘improvement’.

My final 2004 revision was to re-bar the piece out of its original 6/8 – a completely arbitrary barring – into a fluid one without time signatures which I hoped would make the Prelude easier to read. In 2009, after recording the Preludes, Aleksander Szram made suggestions for further improvements and I adopted these for the second edition.

* Perhaps I should say a second move, the invention of scafra itself being the first.

Prelude 5 elements

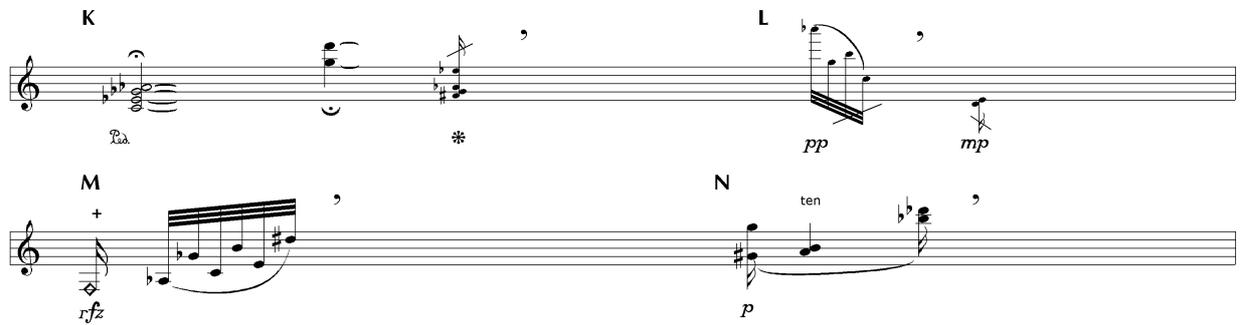
Pyramid 2

A B C D E F G H I J



Pyramid 3

K L M N

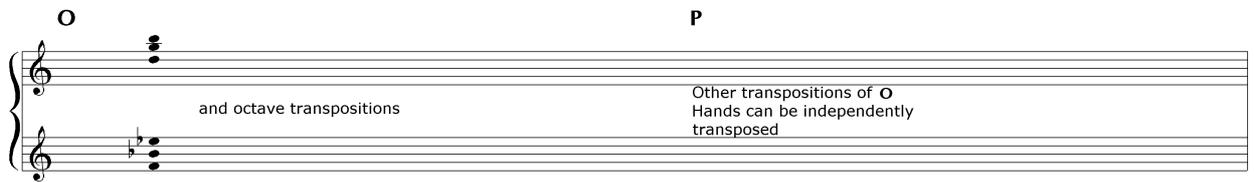


Pyramid 1

O P

and octave transpositions

Other transpositions of O
Hands can be independently
transposed

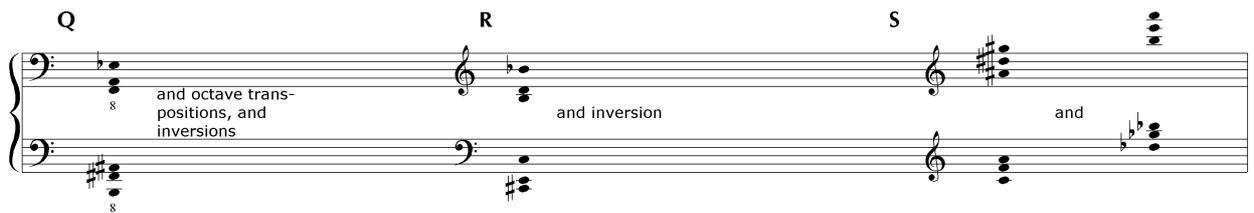


Q R S

and octave transpositions, and inversions

and inversion

and



Prelude 6 model

The musical score for 'Prelude 6 model' is presented in three systems. Each system consists of a piano (right) and bass (left) staff. The key signature is three sharps (F#, C#, G#) and the time signature is 3/4. The score includes various dynamic markings: *pp*, *p*, *mp*, and *ppp*. Articulation marks such as accents and slurs are used throughout. The first system contains five measures, the second contains six, and the third contains five. The final measure of the third system includes an 8-measure rest.

The frames were numbered 1-12 as above: they were then serially re-ordered using I:

4					5	6	7	8				
9			3	4	5	6	7	8	9	10	11	
5					5	6	7	8	9			
8			3	4	5	6	7	8	9	10		
1							7					
12	1	2	3	4	5	6	7	8	9	10	11	12
10		2	3	4	5	6	7	8	9	10	11	
3						6	7	8				
2						6	7					
7				4	5	6	7	8	9	10		
6					5	6	7	8	9			
11		2	3	4	5	6	7	8	9	10	11	12

Prelude 7

July 1999–May 2000, dedicated to Brenda Rolton*

Pole note G#. Form: Scaffra of thickening texture, loosely palindromic. Spool out to a frame of 5, frame advance and spool in.

Element 1 is a series of 11 repeated G#s. Element 2 (superimposed on the repeated element 1 a quaver later) is the remaining 11 notes of the scaprel row (O, untransposed) starting with D# and rotating. The period of 11 bars for the frame was chosen to accommodate this structure. Element 3 (superimposed on element 2 to produce two-note chords following the bell note) is the same 11 notes rotated forward by 1 note (starting with E). Element 4 is rotated a further note: and so on through all 11 rotations.

At element 6 a frame advance commences with the subtraction of element 1 (the bell note) from the texture and the continued addition of a rotated row. The frame advance continues until element 12 has been added. Then at element 13 the bell note returns and element 8 is subtracted. From element 14 we have a spool in to element 17, the final presentation of the repeated G#s.

Tessitura is freely composed with a view to aesthetic considerations and ease of playing. With all elements the tessitura of each repeat is the same. Toward the centre of the Prelude the chords are more and more spread, until for a short while they become arpeggiated.

The order of Preludes 7 and 8 was originally reversed (see 'A calendar of Book 3' above).

Prelude 8

December 1998–October 1999, dedicated to Jennifer Barnes

Pole note E \flat . Form: retro spool out to a frame of 6. The elements are several bars long; the composed texture is pitch-serial, otherwise freely composed.

The model contains 576 pitches arranged in 48 forms of the scaprel row. The rows appear in the order I O RI R, twelve times, with all transpositions used. In the composed texture there are no

* Brenda Rolton died tragically of multiple system atrophy in 2004.

repeated pitches, except where the serial process produces them.

The matrix for the pitch-series was arrived at as follows: O and I start on F# at their first appearance; R and RI start on F# at their last appearance. Thus the final note of the matrix, the model and the Prelude will be E \flat .

Transpositions of each form of the row follow the pitches of that form's first appearance, ie

I = F# B G etc
 O = F# C# F etc
 RI = C# G# A etc
 R = B E D# etc

The elements consist of the following numbers of rows:

'Grandiose'	5 rows
'Fast'	14 rows
'Mechanical'	14 rows arranged in 2 parallel streams of 7 rows each *
'Dry'	3 rows
'Lyrical'	8 rows arranged in 2 parallel streams of 5 and 3 rows *
'Reflective'	4 rows

The compositional process for Prelude 8 went as follows. On 1st December 1998 I improvised several short passages into the sequencer – perhaps 10 or 12 – trying to plan in advance a good spread of styles and types. The following day I listened to the results and chose those most suitable to my purpose, arranging them into a frame of 6 which I put into a retro spool out (the term itself I had not yet invented). At some point, either that day or later, finding myself dissatisfied with two of the elements as they stood, I superimposed over each of them a further improvisation from my original stock, simply letting the original and the new addition play against one another. These elements would become 'Mechanical' and 'Lyrical'.

Having arrived at what I considered a satisfactory frame I began to impose a serial pitch world onto my improvisations. A note count of the eight sections came up serendipitously close to 576 (12 x 4 x 12, the correct number for a complete serial pitch matrix). I would only have to cut a few notes here and there and ensure that each section contained an exact multiple of 12 notes. I made my matrix as described above and applied it to the frame note by note, simply changing each improvised pitch to a 'correct' serial one – the nearest in tessitura to the original. For the elements where two improvisations were superimposed I processed them separately, serialising one completely before moving on to the other, then combined the result in a single stream. All rhythms, dynamics and other parameters I left untouched. Thus I arrived at a frame with the feel and 'event horizon' of an improvisation but a rigorously serial pitch structure.

This was the first use of a technique – I call it *espaliage* – that has since proved very fertile. Prelude 10's melodic line arrived in this way, as did the 'Brilliant' melody in Prelude 12 (adapted to a gamut). The technique is also used in *Flute Sonata*, *Third Sonata* and *Maybe I Can Have An Everlasting Love*.

* In each case the two streams were composed separately and then laid against one another. At various points in this process duplicated pitches were eliminated. Score layout pays no respect to the integrity of the original serial texture but is done solely for ease of playing.

Now the Prelude was re-edited (always respecting the modes) for musical effect and playability. Finally the barlines were done away with, giving an open texture in keeping with the non-metrical *improvisando* nature of the piece. The retained double barlines show the borders of the elements.

This Prelude is characterised by absences: first (trivially) the absence of barlines; second, the absence of any repeated passages (ie of any obvious scafra); third, the absence of the pole note (until two-thirds of the way through, and then only fleetingly – four appearances, half a second of music each, fourteen notes in all); fourth (though we cannot ‘know this yet’) the absence of any reference back to it in Prelude 12. At first glance almost everything that ‘defines’ a Prelude is absent.

There is also the process of subtraction from the original improvisation to produce mode-adapted elements. This forms a contrasting pair with the technique of espaliage used in Prelude 8. There, a texture has its notes altered to conform to a pitch world, but remains complete; here, the original texture is decimated. It will be noted that subtraction was invented first, Prelude 9 having been composed two months before No 8. Subtraction is used again in *Third Sonata*.

It was in January 2002, in consultation with Yukiko Shinohara who was preparing the premiere of this Prelude, that I removed the barlines. At the same time I removed a couple of dozen notes to reduce the extreme difficulty of some passages. In May 2004 while editing Prelude 9 for publication I improved the formatting (notably adding cross-stave beaming, which my software could not do at the time I first wrote the Prelude). I made a few further compositional changes, mostly cutting individual notes for better playability. I also rationalised various passages: for example on page 63 systems 5–6, where the original improvisation had thrown up a series of chords obviously intended to be exact repeats but which came out slightly different in the playing, I made them the same.

In August 2009 Aleksander Szram recorded the *Scafra Preludes*, myself engineering, producing and editing. Up to this point the tempo indication for Prelude 9 had been ‘Precipitous: line = 3 seconds approx’. Aleks played No 9 brilliantly and excitingly, and a full minute slower than the four minutes that would result from observing my tempo indication. I listened both to his assembled performance and to my original (unreconstructed) improvisation, which does last 4 minutes. Exciting though my impro is, Aleks’s performance is just as exciting and more virtuosic, considering he is constrained by the need to play right notes. I feel it may not be possible to play the Prelude any faster, and anyway at this speed it satisfies me completely. I timed the lines in Aleks’s recording, and very many of them come out at about four seconds. Accordingly for the 2009 corrected edition of *Scafra Preludes* I changed the indication to ‘line = 4 seconds approx’.

Prelude 10

April 2002, dedicated to Alison Truefitt

Pole note B. Form: two parallel unconnected streams, the lower a rotated frame with transpositions, the upper a nested spool out. Both streams serially ordered.

This Prelude does not use the scaprel row but one newly generated from the scaprel alphabet. It is in two invertible hexachords:



Lower Stream The lower stream is taken by the bottom 2 staves. It is 100 bars long, containing ten transposed rotations of a 10-bar frame.

The first element (a single bar of 3/4) uses the first hexachord of the row. The first beat is a medium-register chord containing five notes, the second a following bassnote. The bassnote for the first bar is A (note 1 of the hexachord). Four more elements are made in the same way, the bassnote changing each time to the subsequent row note. Thus the bassline of this five-element sequence spells 'aliso[n]'. A second 5-element sequence is made in the same way from the second hexachord. Because these new elements contained no B (the pole note) this note is added to each. The two sequences are inter-cut bar by bar to make a 10-bar frame.

Now the frame is repeated nine times, transposed and rotated. The transpositions and rotations follow the bassline's pitches, the ordering of the rotations being based on A=1, B \flat =rotate starting at element 2, B at element 3, etc.

Upper Stream The upper stream is taken by the top stave. It contains 99 bars + coda, notated as dot music with the barlines removed. The form is a nested spool out from 3 single elements to a frame of 12.

The complete 30-bar model is made from a single-line improvisation whose pitches have been altered to fit a serial matrix: the O row in its 12 transpositions (the ordering of the transpositions that of the row pitches) and the R row in its 12 transpositions (the ordering of the transpositions following the R row) the O and R rows alternated. The resulting pitch-stream is divided arbitrarily into 10-bar sections, and each section is re-composed to differentiate them (2-note chords in the first section, repeated notes in the second and appoggiature in the third) always respecting the serial matrix. These are laid out in a nested spool out, using lengths of 1 bar for the first element in each nest, 3 bars for the remainder:

bars	1	11	21
	1 2 3 4	11 12 13 14	21 22 23 24
	1 2 3 4 5 6 7	11 12 13 14 15 16 17	21 22 23 24 25 26 27
	1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20	21 22 23 24 25 26 27 28 29 30

This can be reduced to a simpler matrix of elements (not taking their lengths into account):

elements	1	5	9
	1 2	5 6	9 10
	1 2 3	5 6 7	9 10 11
	1 2 3 4	5 6 7 8	9 10 11 12

A rest of 3 bars is placed between all spool out sections (including, in the completed frame, between 4–5 and 8–9). The entire stream notated as dot music. This stream is placed in the score to begin shortly before the lower stream. At the end, element one is repeated as a non-scafra coda.

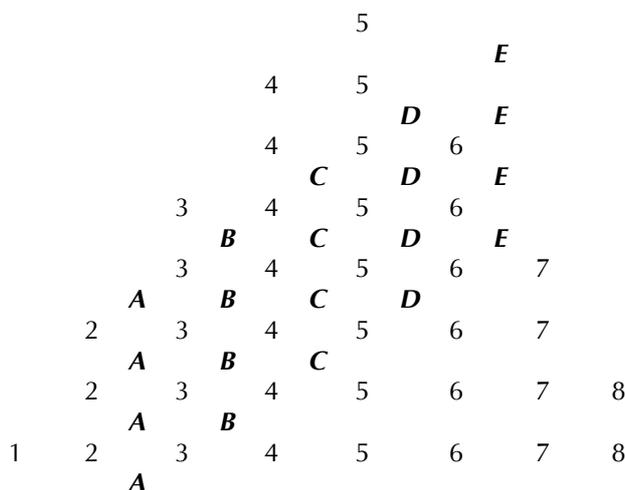
In May 2004 while editing this Prelude for publication I made three small changes: two to the voicings of LH chords for ease of playing, and one to the tessitura of the RH melody for artistic reasons. In all cases the integrity of the serial textures was respected.

Prelude 11

July 2003, dedicated to Terry Edwards

Pole note C. Form: 2 intercut scafras, one a pyramid spool out, the other a frame reverse with spool out and spool in. All elements are quotations from well-known piano music.

The layout of the elements is



The pitch worlds of the elements follow the scaprel row (this becomes rather loose with pieces not in keys, but there is always a connexion). The pyramid (elements 1-8) follows the row starting with A \flat : this provides C on element 5 (the opening and most-played element). The frame reverse (**A-D**) continues from C# to use up the row. The 13th element, **E**, is again in C.

The elements (all of which have strong associations for me) are

1	A \flat	Webern	<i>Variations for Piano</i> , 2nd movement bars 1-11 with repeat
2	E \flat	Monk	<i>Trinkle Tinkle</i> , intro to the 1952 recording
3	E	Prokofiev	7th Piano Sonata, 2nd movement bars 1-2
4	B	Chopin	Prelude in B minor bars 15-18
5	C	Beethoven	<i>Diabelli Variations</i> , Variation 23 first chord
6	G	Schoenberg	<i>Suite for Piano</i> , 'Musette' bars 1-5
7	D	Liszt	Sonata in B minor, <i>Grandioso</i> bars 105-112
8	A	Runswick	<i>Moto Interrotto</i> figure 1a, bars 14-21 (2nd time)
A	C#	Gershwin	<i>Rhapsody in Blue</i> , figure 33, first phrase
B	B \flat	Ligeti	Etude 13, <i>L'escalier du diable</i> first 23 notes
C	F	Schumann	<i>Kinderszenen</i> , 'Träumerei' bars 1-7
D	F#	Stravinsky	<i>Trois Mouvements de Petroushka</i> 'Chez Petroushka' bar 1
E	C	Beethoven	<i>Diabelli Variations</i> Variation 23 continuing bars 1-2

The elements have been copied (or in the case of the Monk, transcribed) with what I hope is complete fidelity, original editorial conventions included: so the Webern has an accidental assigned to every note; the Schoenberg and Runswick retain large (whole staff) time signatures (also respecting the typeface of the original); and the Liszt has fewer guide accidentals than usual. Any divergences here from the originals should be considered misprints, with the following minor exceptions:

- Element 5 Beethoven has *fp*, an effect which may have been achievable on pianos of his period. I have *rfz* for greater emphasis in this context.
- Element 4 Chopin has *Lento assai*, slower than I am used to hearing this piece. I have ♩ = 104 which I want to be noticeably faster than the Prokofiev which it often follows.
- In his 2009 recording of the Preludes Aleksander Szram goes diametrically against this instruction, playing the Prokofiev quite fast and the Chopin slower. It works perfectly well that way round, as long as you don't make the Chopin *too* slow. Coming all those times (seven in all, albeit cut shorter and shorter as the Prelude progresses) it can outstay its welcome.**
- Element C Schumann has ♩ = 80, quicker than the way I am used to hearing this piece. I have substituted *Ziemlich langsam, leise* – an instruction Schumann himself uses in *Album für die Jugend*.
- Element B Ligeti has ♩ = 30: I have ♩ = 180 (which is of course the same tempo) because my excerpt does not amount to an entire bar. For the same reason I have also missed out Ligeti's time signature.
- Element 7 My copy of the Liszt has quaver rests in the upper voice of the LH on the first beat of the bar for 4 bars, then dispenses with them. I saw no point in having any.
- Element A Gershwin has *f* – I have *mp*.
- Element 8 While working on Prelude 11 I played *Moto Interrotto* into the sequencer from memory and it differs slightly from the 1995 score. Liking it, I retained it.
- Element 1 Webern has the repeat barlines 2 notes later than I do, both at the beginning and end of the passage I quote: my change is to avoid 1st and 2nd time bars: it has no effect on how the music sounds.

a mode (the 'michael' mode)



and a gamut (the 'michael' gamut)

Prelude 12's pitch worlds are arranged in a mirrored arch alternating 'michael' and 'daryl' material:

'Grandiose' (D)	'daryl' and 'michael' modes	
'Lyrical – Insistent'/'Belligerent' (C)	'michael' mode	'daryl' mode
'Cool'/'Brilliant' (B)	scaprel row	'michael' row and gamut
'Cascading' (A)	'michael' and 'daryl' gamuts	'michael' and 'daryl' gamuts

Central element The outer (A) sections of the Prelude feature a particular element. The dampers of two notes (the lowest G and D on the keyboard) are quietly raised in advance of these sections, producing sympathetic vibrations (sonorities associated with the pole note, richer or more meagre according to the music that precedes them) during what would otherwise be silences. The two notes in question are never played, here or elsewhere in the Prelude.

In the matrix overleaf this element is signified by \emptyset . In the Prelude itself it is notated with a pause in an empty staff. Consistently with all my works (including Prelude 2) this symbol implies a complete cessation of all sound (here, the central element's sympathetic vibrations will ring through the 'silence').

'Cascading' (first A section) The played texture of this section is generated entirely from isomorphs derived from the cryptogram 'michael' and its free transpositions. The final 'l' of 'michael' only appears in elements E and F, and the typical isomorph is a quintuplet. Elements and isomorphs do not coincide, however: each element is 14 notes long and strobes against the isomorphs.

Prelude 12 matrix

'Cascading' A

```

      E  Ø  F
      D E  Ø  F G
      C D E  Ø  F G H
      B C D E  Ø  F G H I
      A B C D E  Ø  F G H I J
  
```

'Cool' B

```

      K
      K L
      K L M
      K L M N
      L M N O
      M N O P
      N O P Q
      O P Q R
      P Q R S
      Q R S T
      R S T U
      S T U U
      T U U U
      U U U U
  
```

'Lyrical-Insistent' C

```

      Y      Z
      V W X Y a a Z
      W X Y a a Z
      X Y a a a Z
      Y a a a a Z
      Y a a a a Z
      a Z
  
```

'Grandiose' D

```

      b c d e f g h
      c d e f g h
      b c d e f g h
      b c d e f g h
      b c d e f g h
  
```

'Belligerent' C

```

      Z a a a a Y
      Z a a a a Y
      Z a a a a Y
      Z a a a a Y
      X Z Z Y
      W X Z Y
      V W X Z Y
  
```

'Brilliant' B

```

      U      12 13
      U U T 12 13
      U T T S 12 13
      U T T S R 12 13
      U T T S R R 12 13
      U T T S R R Q 12 13
      U T T S R R Q Q 12 13
      U T T S R R Q Q P 12 13
      U T T S R R Q Q P O 12 13
      U T T S R R Q Q P O N 12 13
      U T T S R R Q Q P O N M 12 13
      U T T S R R Q Q P O N M L 12 13
      U T T S R R Q Q P O N M L K 12 13
      U T T S R R Q Q P O N M L K K 12 13
      U T T S R R Q Q P O N M L K K K 12 13
      U T T S R R Q Q P O N M L K K K K 12 13
      U T T S R R Q Q P O N M L K K K K K 12 13
  
```

'Cascading' A

```

      E  Ø  F
      D E  Ø  F G
      C D E  Ø  F G H
      B C D E  Ø  F G H I
      A B C D E  Ø  F G H I J
      Σ i j k l m n o p
      q r s t u v w x i j k l m n o p
      r s t t u v w x j k l m n o p
      s s t t u v w x k l m n o p
      s s t t u v w x l m n o p
      s s t t u v w x m n o p
      s s t t u v w x n o p
      s s t t u v w x o p
      s s t t u v w x p
      s s t t u v w x -
      s s t t u v w x -
      s s t t u v w x -
      s s t t u v w x -
  
```

The form of this section is a pyramid grouped around the resonant silence of the central element. The elements to the 'left' of the central element (A-E) are made with the 'mical' gamut; those to the 'right' (F-J) with the 'daryl' gamut. The final isomorph of element E is the 'mical' cryptogram at pitch. The first isomorph of element F is a retrograde of the 'daryl' cryptogram with the addition of the note B in the left hand to make it match the 'mical' isomorph.

'Cool' (first B section) This is a spool out to a frame of 4, frame advance and spool in. The model consists of 12 events: all except the first (a statement of the pole note G) are single chords with one note left hanging. They range in thickness from 1 note to 12 and are arrayed in 11 elements (K-U: the sixth and seventh events are paired as element P). Events are serially determined as to their pitch content, thickness, duration and dynamics using the scaprel row. Tessitura is freely composed.

A number series was generated using G=1 G#=2 etc ... F#=12, and applied to the row starting at G and rotating back to the beginning:

G	D	A	C#	B \flat	F	F#	G#	D#	E	B	C
1	8	3	7	4	11	12	2	9	10	5	6

The pitch content of each event follows the notes of this row, rotating back to its beginning where necessary. Thickness follows the number series: the first event is a single note, G; the second is a chord 8 notes thick, D and the 7 following it in the row; the third is 3 notes thick, A, C# and B \flat ; etc.

Durations follow the number series +2 using a quaver as the unit: so the first event is 3 x quaver, the next 10 x quaver, the next 5 x quaver, etc. The full duration is applied only to the 'series note' – the hanging note: the remaining notes are restricted to a crotchet in length. On its first appearance even the series note is restricted to a crotchet, the remainder of the duration being filled by rests (the first series note of element P, being half of a double element, is the exception). The final element U, after its second, third and fourth appearances, has extra rests added.

Dynamics range from *pp* to *mf* (4 values in all) each spanning three numbers in the series:

$$1, 2, 3 = pp; 4, 5, 6 = p; 7, 8, 9 = mp; 10, 11, 12 = mf.$$

This section originally had a second layer, as its twin 'Brilliant' still does: I removed it, made the events chords with hanging single notes, and added the serial dynamics, in July-August 2005. This slightly threw out the symmetry of the pitch worlds (see previous page) but the musical dividends were great. The previous year I had considered Prelude 12 (and the *Scafra Preludes*) finished, but in June 2005 on playing through Book 4 I found myself dissatisfied with it. After an idyllic holiday in Italy, radical re-composition of most of the Prelude took place: only 'Belligerent' remained untouched.

‘Lyrical – Insistent’ (first C section) A retro spool out and a spool in coexist. Element Y sits between them, unchanging. Elements a (a single chord) and Z (a two-note phrase) provide the spool out. A spool in of different material (elements V W and X) is interspersed. The entire texture is constantly transposed, following the retrograde of the ‘mical’ cryptogram: F, E, A, C, B, F# (the second appearance, on E, is the original). The pitch worlds are modes derived from ‘mical’.

‘Grandiose’ (D section) The form (elements b–h) is an embedded reverse pyramid. The material is freely composed and is slightly embellished as the section progresses. For pitch worlds the elements of the pyramid (bold in the matrix) use the ‘daryl’ mode, while the elements of the bed (italicised) translate* the same material into the ‘mical’ mode. Thus during this section we experience the four (-and-a-bit) scafra processed expositions of the material as almost-repetitions which undergo the translation of their pitch worlds. The ‘daryl’ mode is used exclusively at the beginning, oscillations of pitch world occur in the middle, and the ‘mical’ mode is used exclusively at the end.

Soon after I composed the seventh element of this section (page 93 system 5 bar 1) it began to remind me of a wonderful passage in Prokofiev’s 7th Piano Sonata toward the end of the slow movement (9 bars before the final *Tempo primo*: from the same piece quoted in Prelude 11). Actually when, days later, I looked at the score the resemblance wasn’t that close: my memory had combined this passage with an earlier one (the 8th bar of the *Più largamente*). But at the time I thought I might have plagiarised Prokofiev and was tempted to make changes to my passage to disguise the likeness. On reflection I did the opposite, deliberately inserting the passing note after the fourth beat to heighten the resemblance.

‘Belligerent’ (second C section) The material for this section can be seen as a very loose retrograde-inversion of ‘Lyrical – Insistent’, restricted in tessitura to the lower register. In addition the music is translated into a new mode made from the inversion of the ‘daryl’ cryptogram: D, G, E \flat , F#, B, B \flat . The transpositions are altered to follow this inverted cryptogram.

Before my reworking of Prelude 12 in July 2005 ‘Belligerent’ was a much closer retrograde-inversion of ‘Lyrical – Insistent’. Even after the reworking the material can be seen to be closely related.

‘Brilliant’ (second B section) Two scafras run in counterpoint. The first (elements K–U in reverse order, printed on the left in the matrix) is a spool out to a frame of four, frame advance and spool in, analogous to the first B section. As before 12 serially determined chords are arrayed in 11 elements, the sixth and seventh chords being combined in a single element (P). The pitch content, thickness and durations are arrived at exactly as before, using the ‘mical’ row this time, beginning at A \flat and rotated to finish at G. Durations are the serial value + 1 (in ‘Cool’ it was 2) using a quaver as the unit. There are no hanging notes: the whole chord is held for the full serial duration. The final appearance of each chord is restricted to a quaver in length (in ‘Cool’ it was the first appearance, and a crotchet) the remaining value being taken by rests. The exception is the first chord of element P. Element U, for its first three appearances, has extra rests added.

* I have coined the term *translation* for the process of changing a passage from one mode to another (see Glossary).

The second scafra, notated as dot music and counterpointed against the first, is a linked but separate stream of music (elements 1–13, printed on the right in the matrix). The material (originally improvised) is first processed as a spool in, then its lines are re-ordered to fit the *lengths of phrase* of the chordal scafra. Thus, though the two scafras are made using different processes, the lengths of their phrases are identical, producing silences at the same places.*

In several of these silences a ringing effect (reminiscent of the resonant silences in 'Cascading') is achieved by pedalling 'late' – after the release of a loud, short chord but before the strings have completely stopped vibrating. Elements so treated are marked in the matrix in bold type.

This represents a hangover from the 2004 version of the piece. Before the revision of July-August 2005 the central element Ø ran all the way through Prelude 12, stopping only for the final nested spool in. In 2005 I realised that I hated the unremitting blur of sonority this produced. I therefore restricted the effect to the outer 'Cascading' sections, where it works wonderfully and does not outstay its welcome. Then on playing through 'Brilliant' I had the idea of reinstating the resonant silence here in another form. I did it only partially – in six of the fourteen lines – for reasons of surprise (Alison suggested this). The places where it now occurs are all places where the central element originally occurred. I determined which ones would sound and which would not freely, using no system.

Whereas the chords in this section are made using the 'mical' row, the filigree adopts the 'mical' gamut: so the counterpoint of scafras incorporates a counterpoint of pitch worlds.

'Cascading' (second A section) The melodic material and pitch worlds here are identical with the first A section, and the first half repeats the music of the opening of the Prelude almost exactly, the only difference being an eliding of some entries. This elision works to preserve the integrity of the quintuplet movement (not the case in the first 'Cascading').

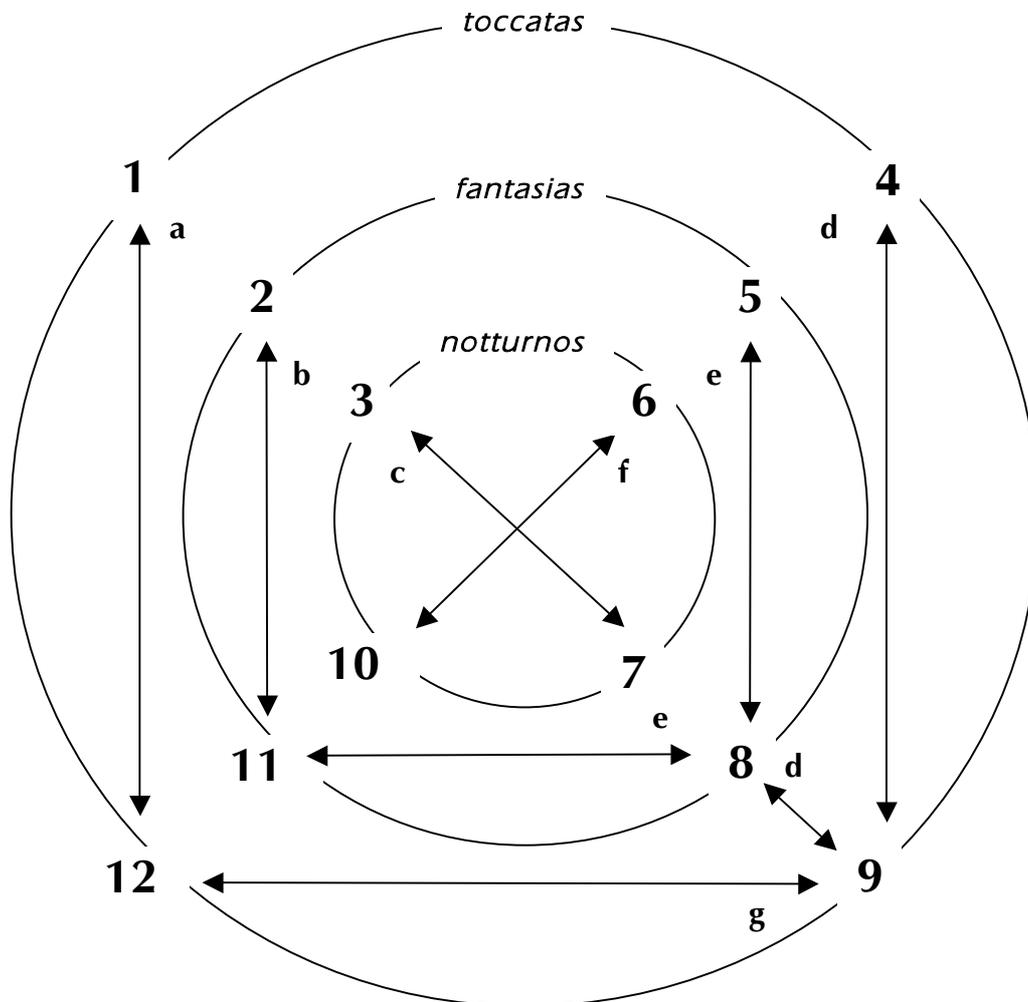
There follows a non-scafra event! (Σ in the matrix). To mark the beginning of the Prelude's (and the Preludes') coda, the first isomorph of A and the final one of J are played, isolated, together.

This introduces a nested spool in using the same material as the first part of the section, re-ordered. The central element is dropped. The quintuplet isomorphs from the previous passage are retained note for note but their order is changed and they are re-grouped into sixteen shorter elements: i-p (original elements F–J, the individual isomorphs unchanged but in reverse order) and q-x (original elements A–E treated in the same way). The 'mical' isomorph from the original element E, and its 'daryl' counterpart in element F, are cut. The new elements always consist of complete isomorphs: elements i-m and q-u contain 2 isomorphs each; n, o, p, v, w and x contain one isomorph each.

At the very end there is a micro spool in (marked in the matrix with dashes) of the notes of the last pair of elements, p and x.

* NB The ends of phrases (the silences) in the chordal scafra do not coincide with its line and frame ends: they come after the *first* element of each line, not the last. So the second scafra's lines, which do end in silences, must, in order that the silences of both scafras coincide, overlap the lines of the first.

Mirrors in the Preludes



- a** arch forms, non-scafra events
- b** intercut scafras
- c** bell notes, rotation
- d** all material worked up from improvisations
- e** long elements in macro scafras
- f** pole always present in serially determined chords
- g** use of modes

Glossary

Four terms within this glossary – **FRAME**, **PYRAMID**, **SCAFRA** and **SPOOL** – constitute *generic headings* and appear in upper case. For any phrase containing one of these words, see under the generic heading.

cryptogram a series of notes which encode someone's name

Composers have always used the letters traditionally given to musical notes – A, B (the German notation for $B\flat$) C, D, E, F, G, H (B natural) and S ($E\flat$) to embed names and other words into their music. B-A-C-H is the commonest example, and Shostakovich used D-S-C-H as his signature. For *Scafra Preludes* I invented the scaprel alphabet, which assigns a note to every letter, thus allowing the complete encoding of any word.

dot music a style of notation which dispenses with stems, rests, barlines and many other conventions, resulting in empty staves scattered with note heads

element any event – a noise, sample, note, chord, phrase or passage chosen as irreducible for scafra processing (irreducible, but it can be varied)

FRAME a series of consecutive elements (usually a set number) used as a unit for scafra processing: for advancing, reversing or rotating

frame advance a passage where the scafra progresses by the subtraction of an element from the beginning of a frame and the addition of a new one at the end

eg

frame 1	1	2	3	4	5		
frame 2		2	3	4	5	6	
frame 3			3	4	5	6	7

frame reverse a passage where the scafra progresses by the addition of a new element at the beginning of a frame and the subtraction of one from the end

eg

frame 1			3	4	5	6	7
frame 2		2	3	4	5	6	
frame 3	1	2	3	4	5		

frame rotate a passage where an element is removed from one end of a frame and added to the other end: as the passage progresses the same elements remain, the order being 'rotated'

eg frame 1 1 2 3 4 5 or 1 2 3 4 5
 frame 2 2 3 4 5 1 5 1 2 3 4
 frame 3 3 4 5 1 2 4 5 1 2 3

gamut a scale similar to a mode but extending beyond the octave: see page 18 above

isomorph a very short motif or phrase used as a structural building block

line in a spool or pyramid, lines occur between the initial (or final) single element and the frame

eg single element 1
 lines { 1 2
 { 1 2 3
 { 1 2 3 4
 frame 1 2 3 4 5
 frame advance 2 3 4 5 6

matrix a table of figures or symbols illustrating the layout of a scafra or other process

mode any invented or borrowed scale used in accordance with certain conventions: see page 17 above

model all the elements in a scafra (1 to n) laid out as a single passage of music

Except in the case of a frame advance or reverse, the model will be identical with the frame; but the frames in a frame advance or reverse contain only part of the model. The model encompasses the entire passage to be scafra processed.

frames { 1 2 3 4 5
 { 2 3 4 5 6
 { 3 4 5 6 7
 model 1 2 3 4 5 6 7

With a frame advance or reverse the complete model does not appear in the piece at all. In the *Scafra Preludes* the model is absent from Nos 1, 4, 7 and 9, the frame reverse in 11 and the B sections of 12. For all these passages a model *exists*, it simply isn't heard complete at any point.

pitch quarry a restricted set of notes from which the pitch content of a passage of music can be chosen

pitch world the melodic and harmonic aspects (to use the old terminology) of a composition
 If a piece of music employs a key, tonality, free chromaticism, free atonality, serialism, modes, gamuts or even Renaissance polyphony, that is its pitch world.

pole note a specific note acting as a centre of gravity for a passage of music (similar to the keynote in tonal music)

PYRAMID a spool out which grows backwards as well as forwards

eg

				3					
				3	4				
				2	3	4			
				2	3	4	5		
			1	2	3	4	5		

or

									5			
								4	5	6		
							3	4	5	6	7	
						2	3	4	5	6	7	8
			1	2	3	4	5	6	7	8	9	

inverse pyramid a spool in which shrinks from the end as well as the front

eg

1	2	3	4	5					
	2	3	4	5					
		2	3	4					
			3	4					
				3					

or

1	2	3	4	5	6	7	8	9	
	2	3	4	5	6	7	8		
		3	4	5	6	7			
			4	5	6				
				5					

embedded pyramid a pyramid whose lines alternate with other lines (the *bed*) which contain the elements missing from the pyramid

eg

pyramid				4				
<i>bed</i>	1	2	3		5	6	7	
				3	4	5		
	1	2				6	7	
				2	3	4	5	6
	1							7
	1	2	3	4	5	6	7	

SCAFRA the compositional method used in the making of these Preludes and other pieces (fundamentally, a process of controlled repetition); a passage of music composed by this process

scafra processing taking a model and applying to it any of the various techniques which turn it into a scafra

serialised scafra a scafra where the frames or lines are played not in their scafra sequence but re-ordered by serial processing

SPOOL a passage where elements expand to or contract from a frame

spool out a passage where a single element expands by addition at the end through a number of lines to a frame; to expand in this way

```
eg   single element      1
      lines               { 1 2
                          { 1 2 3
                          { 1 2 3 4
      frame               1 2 3 4 5
```

spool in a passage where a frame contracts by subtraction from the front through a number of lines to a single element; to contract in this way

```
eg   frame              1 2 3 4 5
      lines              { 2 3 4 5
                          { 3 4 5
                          { 4 5
      single element     5
```

nested
spool out a frame which is built up by spooling out from two or more points within it

```
eg   1                  6
      1 2                6 7
      1 2 3              6 7 8
      1 2 3 4            6 7 8 9
      1 2 3 4 5          6 7 8 9 10
```

nested
spool in a spool in from two or more points in the frame to two or more single elements

```
eg   1 2 3 4 5 6 7 8 9 10
      2 3 4 5 7 8 9 10
      3 4 5 8 9 10
      4 5 9 10
      5 10
```

retro
spool out a spool out which starts at the end of the frame and grows backward

```
eg           4
             3 4
             2 3 4
            1 2 3 4
```

retro
spool in a spool in which subtracts elements from the end of the frame

```
eg   1 2 3 4
      1 2 3
      1 2
      1
```

strobe the process of taking two lines of music of different lengths and repeating them against each other, the shorter line not waiting for the longer to finish before repeating, so that their positions relative to one another constantly change; or (as in Preludes 2 and 12) doing it to two parameters within a single line

translate to change the mode of a passage of music

The process is similar to that of changing a passage of tonal music from major to minor or vice versa: the overall tessitura of the music stays the same but the internal intervals change.

When you *transpose* a passage of music the converse happens: it moves up or down in tessitura while its internal intervals remain the same. Of course, you can transpose *and* translate a passage of music.