

## Stuart Greenbaum: *Easter Island*

Analysis by the composer

### Background

Easter Island (remotely located in the middle of the Pacific Ocean) is thought to have been settled by Polynesians around AD800. Its society rose and fell (without outside intervention) due to deforestation and the resultant strain on food supply. By the early 18<sup>th</sup> century their society was in a state of collapse and cannibalism, the population having dwindled to around 20% of its estimated peak.



Giant stone statues still line the coast, elongated heads mostly facing inward and these too provide a fascinating artefact, adding to the intrigue of a unique society. Evolutionary biologist, Jared Diamond speculates that the collapse of Easter Island serves as a metaphor for Planet Earth and the probable result for our own environment if we follow the same path.

This piece is a meditation upon the story of Easter Island. It was commissioned by the Australia Ensemble, resident at the University of New South Wales and is dedicated to my children Aksel and Hanna who I hope will inherit a peaceful and sustaining planet.

### Starting point

Toward the end of 2007, the Australia Ensemble commissioned a new work for their 2008 subscription series. A piece specifically featuring the flute was sought and the option was given to write for the full septet, thus including flute, bass clarinet, piano and string quartet. Writing a piece concerning Easter Island had been 'in the wind' for a few years and a substantial piece of around 20 minutes duration for this ensemble seemed the right medium for the idea.

Extra-musical concepts can be useful springboards for composers but translating them into actual notes or sound is not a scientific process. Music is an abstract language and the conscious mind is not always a willing partner in bringing it to life. Once even a few notes are set, they tend to have a profound impact on the remainder of the piece. The longer the piece, the more this phenomenon comes into play. Having said that, it doesn't require a board meeting to ratify something that intuitively seems promising – but something 'promising' can be elusive.

While out walking, a speculative image of Easter Islanders rolling giant slabs of stone over logs from quarry to shoreline came to mind. Immense effort must have been required to move all that stone. The statues have a powerful and enigmatic presence and were apparently central to their culture yet also connected to what was undermining the sustainability of their environment. In contemplation of this, a rhythmic feel and syncopation began to emerge and this pattern was then set in pitch and texture as a type of ‘groove’ at the piano. In the finished score this pattern can most clearly be found in the piano at rehearsal letter E:

**ex.1**

Considerable time was spent repeating this pattern over and over (and experimenting with different variations) at the piano, mantra-like, as a way of defining the ‘soundscape’ of the piece.

In regard to pitch, the pattern is modal in F with a major 2<sup>nd</sup> (G), perfect 4<sup>th</sup> (Bb) and perfect 5<sup>th</sup> (C) but initially with no 3<sup>rd</sup>. This harmonic ambiguity is deliberately exploited in conjunction with the syncopation to create a sense of ‘progress’ without being tied to definite outcomes.

These 3 bars also provide a metrical ‘scaffolding’ for much of the piece. The metrical pattern is 4/4+3/4+4/4 but the internal division was originally conceived as 3+2+3 / 2+2+2 / 3+2+3. This cycle of 22 quavers ensures that no more than 6 quavers go by without a change between duple or triple emphasis. There are slightly more duple cells (5) to triple cells (4), but the triple cells account for slightly more of the pattern than the duple (12 to 10). While the duple cells are concentrated in the middle 3/4 bar, we also get two triple cells in a row as the pattern cycles from the final triple cell back to the first triple cell at the start of the next pattern.

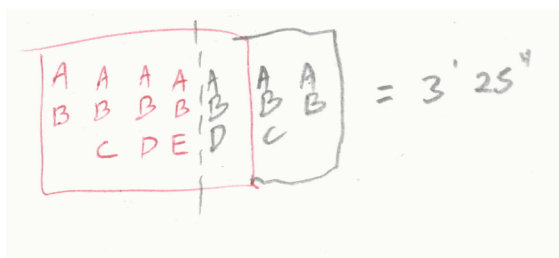
**ex.2**

Sometimes the 3+2+3 grouping appears as an overt pulse (as in ex.2) but more often it is heard as a syncopation against regular crotchets (as in ex.1).

### From pattern to chapter

Once the original pattern (O) was firmly established, a larger section was mapped out:

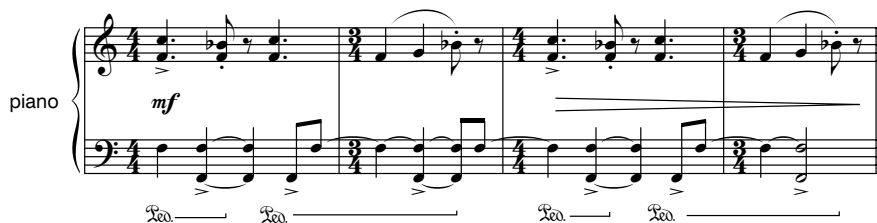
#### ex.3



In this preliminary sketch, the original pattern is represented by 'A' and reads in columns. The dotted line reveals an arch form, whereby the expansion is reversed. After some deliberation this arch shape was rejected because the second half was not progressive when it needed to be. The idea of an additive structure, however, was retained.

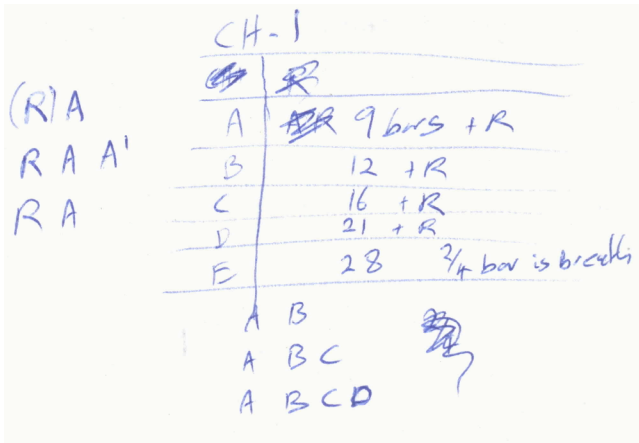
Melody was not yet part of the compositional process at this stage, just the rhythmic and harmonic patterning that extends from the original 3-bar pattern. In playing the pattern repeatedly, it became obvious that variation would be required both in time signature and also in harmonic colour. In the first instance merely adding an extra 3/4 bar to turn it into a 4-bar pattern seemed useful. Structurally, this first appears 4 bars before letter A, but can be more clearly observed at bar 36:

#### ex.4



The left hand has a heavier offbeat crotchet feel but it is clearly an extension of the original pattern. This variation proved useful and consequently became the refrain (R) with a specific melody attached to it. It appears 20 times in the course of the piece; 5 times in chapter 1, 10 times in chapter 2 (as it is repeated twice on each occurrence) and 5 times again in chapter 3. But at this early stage of the composition, it was simply a rhythmic variation to stop the pattern becoming too predictable. The premise that the original 3-bar patterns would repeat a little longer each time before the refrain recurs led to a further structural sketch:

**ex.5**



Ultimately, this additive structure was closer to the eventual form of chapter 1:

**ex.6**

LETTER	MATERIAL			BARS	QUAVERS
			R	4	28
A	O (x3)			R	94
B	O (x4)			R	116
C	O (x5)	SC		R	144
D	O (x6)	SCE	T	R	184
E	O (x7)	SCE	T	A	210
<b>TOTAL</b>				<b>106</b>	<b>776</b>

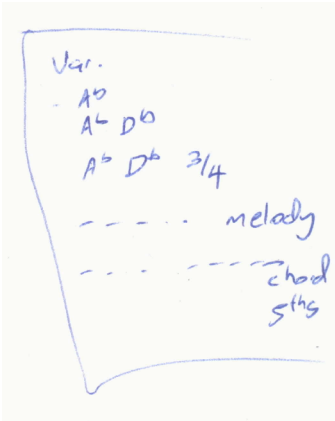
- R = 4–bar refrain
- O = original 3–bar pattern
- SC = subdominant chord
- SCE = subdominant chord extended
- T = turnaround melody
- A = arrival chords

This table is laid out paradigmatically in columns of incidence, which read left to right across 6 rows (or sentences). It reveals that the original pattern is given an extra repeat each time so is getting gradually longer, while the sentences also gradually introduce new elements before arriving at the refrain (R), which is always 4 bars long. This can be viewed loosely as a minimalist process of phrase augmentation or structural expansion. It is not ‘pure’ minimalism but might be viewed as an adapted minimalist technique used within a post–minimal work.

**Subdominant chords and ‘turnarounds’**

As the original 3–bar patterns expand (O), they branch out from being F–based to including Ab and then Db as bass notes in conjunction with the centre of F:

**ex.7**



This sketch notes the function of harmonic variation within the additive structure of the first chapter. When the subdominant bass note 'Bb' is added to the Ab / Db additions, it is relatively brief (one bar of 3/4) but is then expanded in the next two sentences and these lead to a 'turnaround' melodic figure. This can also be seen on the original pen and paper sketch:

**ex.8**

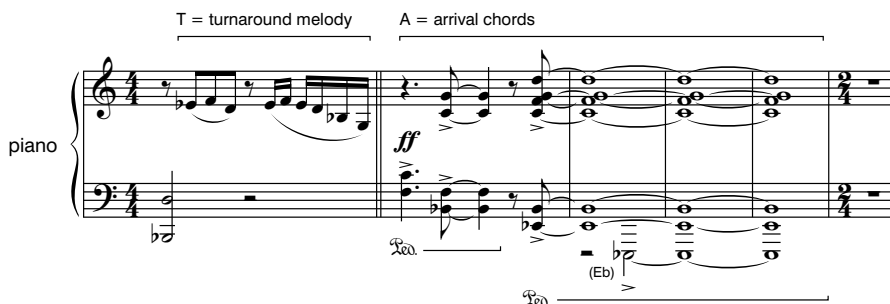


The phrasing accentuates offbeat quavers; and while not a complete melody, it was the first melodic shape composed in the work. Subsequent melodic material was not systematically derived from this shape but it created a reference point: a mixture of conjunct and disjunct motion (scales and arpeggios) with an interlocking contour.

**Arrival chords**

It is tempting to view the arrival chords (A) as 'cadential' and they are in the limited sense that they are a form of punctuation in the musical language:

**ex.9**





**ex.11**

Scherzo.  
Allegro molto.

23

In chapter 2 of *Easter Island*, this simple technique is placed in a notably different context but can still be clearly observed in bars 144 to 147:

**ex.12**

The musical language of chapter 2 is often closer to a 'blues' style than 'classical' forms so this role-swapping technique results in an interesting instance of 'cross-over'. It's not exactly a post-modern approach, since the musical surface does not invite instant comparison of two different styles of music. But underneath the surface, the musical materials and techniques are drawn from overtly different musical genres.

**Melodic setting**

Up to this point in the composition process, melodic invention has been mostly held back, save for the 'turnaround' melody, which is merely a half-bar linear motive. Having constructed the metrical and harmonic scaffolding of a chapter in the piano part, the flute is effectively then allowed to play 'freely' on top of this. This was improvisatory up to a point. It wasn't played, conceived or typed in



The arpeggiated pattern contains no new pitches; it simply creates a connected flow of quavers with notes from the chords. The piano part deliberately holds off revealing the original chordal 'comping' pattern until letter E because it generates more drive and this is a useful device to help the chapter to build in intensity towards the arrival chords. Letter A starts with a fragmented variation which has an antiphonal relationship with the flute. Letter B introduces a little more activity and by letter C, the rhythmic texture flows in constant quavers for the first time. Letter D then alternates chords with arpeggios and by letter E, the originally conceived chordal pattern is finally revealed in full.

Chapter 1 also includes three subtle viola doublings as a precursor of the string quartet texture that will dominate chapter 2 – but chapter 1 is essentially a flute and piano duo.

### **From chapter to structural outline**

The process of turning a 3–bar pattern of less than 10 seconds into a chapter of over 4 minutes is not entirely dissimilar to the process of turning a 4–minute chapter into a 20–minute work. The main difference is that some sections are based on new material. What is in common, however, is the idea of 'growing' material. To turn a short pattern directly into an entire work is also, of course, possible but it is often useful to be able to break the task down into stages. In some ways this is like a game of chess: given a few opening moves, one ideally tries to plan ahead as far as possible. But the potential outcomes can be virtually infinite and it is prudent not to get too far ahead of the game. There is a balancing act between having clear proportional goals and being sensitive to the note–to–note, bar–by–bar possibilities that arise. Many composers balance this inherent friction intuitively. This article is in many ways an attempt to 'reconstruct' the order of compositional events – an asymmetrical mixture of the intuitive and the systematic.

*Easter Island* is cast in one relatively continuous movement. Some of its 9 sections flow directly into each other, while others have a measured 2/4 bar of general pause or 'breath' before continuing. The ongoing nature of the overall narrative is such that it is not really possible to think of the sections as 'movements', yet the delineation between the sections is always overt. The 9 sections in order are:

## ex.15

<b>prelude:</b> uninhabited island
<b>chapter 1:</b> arrival
<b>interlude 1:</b> stone heads
<b>chapter 2:</b> expansion
<b>interlude 2:</b> premonition
<b>interlude 3:</b> stone heads (reprise)
<b>chapter 3:</b> collapse
<b>elegy</b>
<b>postlude:</b> '...to dust we shall return'

Central to this structure are three 'chapters' and they are described as such because they form a narrative outlining the rise and fall of an isolated society. The chapters share common material, particularly in the metrical structure but also thematically. The first and third interludes (stone heads) provide a kind of tableau or image of the giant stone carvings on the landscape. They are brooding and seemingly impermeable. The middle interlude however is somewhat detached from the earth-bound concerns of people and their stone images. This 'premonition' is unearthly or as seen from above or from outside of time. It is a fantasy based on ideas of destiny. It forms the heart of the work. At the outer edges of this structure are a prelude and postlude, both for solo flute which are plaintive and perhaps represent the voice of the island, before and after the presence of human inhabitants.

The form of the work (as described above) took time to evolve and settle. Looking back at a plan from 9 December 2007, there were three stone heads interludes (not two), the premonition interlude was to be in 3/4 (it ended up in 4/4 but in 3-bar phrases) and an even earlier version of the plan included four 'verses' (which ended up being three chapters). But in essence, the concept of a narrative divided by interludes, all framed by the solo flute remained intact by the end of January 2008 when the score was completed some two months after the first notes were framed.

### **Instrumental structure**

Having arrived at a relatively firm overall programmatic structure, the next considerations concerned what instruments would be play in these sections and what their harmonic (modal) centre would be.

**ex.16**

SECTION	FEATURED INSTRUMENTS	HARMONIC CENTRE
<b>prelude:</b> uninhabited island	solo flute	F
<b>chapter 1:</b> arrival	flute & piano	F
<b>interlude 1:</b> stone heads	b.cl, pno, vla, vc	C
<b>chapter 2:</b> expansion	string quartet	G
<b>interlude 2:</b> premonition	full ensemble	E
<b>interlude 3:</b> stone heads (reprise)	b.cl, pno, vla, vc	C
<b>chapter 3:</b> collapse	full ensemble	D, A, E, F#, A, Bb, C, C#, Bb
<b>elegy</b>	cello & piano	G
<b>postlude:</b> '...to dust we shall return'	solo flute	F

Assigning instrumental groups or subsets to particular sections allowed not only for contrasting colours and textures but also to create links between timbre and narrative. The flute, being central to the piece might perhaps be viewed as the voice of the island. It opens the piece (before the arrival of humans), it is still featured throughout the first chapter (arrival) but is then absent in stone heads and through the middle of the piece becomes more woven into the overall texture before reasserting its presence at the point of collapse and then to final end the piece. Its duet with the piano in the chapter 1 occasionally becomes a trio with the shadowing notes of the viola pre-empting the voice of strings in the following chapter.

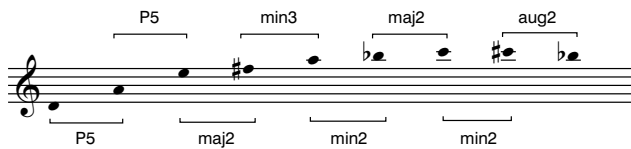
The stone heads interludes feature low register instruments (no flute or violins). Chapter 2 (expansion) features the string quartet but the full ensemble occasionally joins in for the repetition of the refrain. The full septet is not actually revealed until bar 161, some 5 minutes into the piece! This full ensemble texture is deliberately held back and not over-used so that when it is finally given an extended treatment in chapter 3 (collapse) it has more impact. Additionally, the role of the bass clarinet does not come into its own until this final chapter. It is the central 'agent of darkness' (to use a dramatic term) and weaves a melodic spell, somewhat like that of a snake charmer. The flute does also weave its song into this increasingly frenetic final chapter but ultimately ends the piece as a solo voice, played offstage to heighten the sense of absence.

**Harmonic structure**

The harmonic scheme looks straightforward at a glance in terms of harmonic centres but it only reveals part of the story. The piece is modal, rather than tonal and while it is definitely built around harmonic centres with a certain gravitational pull, the function of the harmony operates somewhat differently to conventional tonality. Harmonic intervals of perfect 4ths and 5ths are prevalent but the 3rds are either absent, as in the original piano pattern (refer back to ex.1), alternating between minor and major (refrain: ex.10), sometimes cross-related in 'blues' style (eg: bar 193) and even superimposed bi-tonally at the end of the stone heads interludes. By the time chapter 3 comes

around, the 2<sup>nd</sup> degree of the scale is flattened, further darkening the harmonic palate. But most noticeable of all is the increasingly rapid shifting of harmonic centres in chapter 3. This was not part of the original plan but was adopted to heighten a sense of increasing desperation – the musical narrative is trying to find a point of resolution and is unable to. It modulates modally or simply by juxtaposition as follows:

**ex.17**



This sequence was arrived at intuitively, rather than systematically, but is deliberately avoiding predictability. It initially implies a cycle of 5ths and the pattern-breaking major 2<sup>nd</sup> is effectively jumping two perfect 5ths in one step, creating logical acceleration or compression. The remainder of the pattern is then relatively asymmetrical. Coupled with this is the amount of bars given to each of the 8 centres in chapter 3:

**ex.18**

BAR	HARMONIC CENTRE	NO. OF BARS	MIN / SEC
381	D	49	1' 28"
430	A	25	46"
455	E	10	18"
465	F#	6	11"
471	A	3	5"
474	Bb	2	3"
476	C	1	2"
477	C#	8	15"
485	Bb	4	15"

The first section (D-centred) is almost a minute and a half in length. This is halved and increasingly shortened until the music is virtually modulating every few seconds. The pattern is exponential, rather than linear and creates a type of structural implosion. The harmonic flow leads to a final utterance of the 'arrival' chords (refer back to ex.9) but this time they come to rest on Bb octaves that have no harmonic colouration other than a subtle perfect 5<sup>th</sup> in the viola:

ex.19

The musical score for ex.19 is a multi-staff arrangement for flute (fl.), bassoon (b. cl.), piano (pno), violin I (vln I), violin II (vln II), viola (vla), and viola (vc). The music is in 4/4 time and features a variety of dynamics, including fortissimo (ff) and fortississimo (fff). Performance instructions include 'growl tone' for the bassoon, 'grad.' (gradual) and 'ord.' (order) for the flute and bassoon, and 'long' for the flute. The piano part includes markings for '15<sup>ma</sup>' and '15<sup>mb</sup>'. The violin I part has a marking 'Tea (keep down until leter JJ)'. The score is divided into several measures, with some measures containing complex rhythmic patterns and others containing sustained notes or chords.

It is tempting to view this as the dominant of F (which opens and ends the piece) but since the internal harmonic relationships work outside of conventional tonal voice-leading, this is relatively incidental. More compelling are the adjacent intervallic relationships between the 9 sections (refer back to example 16). Chapter 2 (expansion) is deliberately a tone higher than chapter 1 in order to give it a 'lift'. Similarly Chapter 3 is a tone higher than the interlude that precedes it. Both of these harmonic shifts were designed to reignite the power of the narrative to advance the musical discourse. Furthermore, white-note centres were also exploited for instrumental resonance, notably for the strings and especially in chapter 2 that by design exploits the open strings of the quartet.

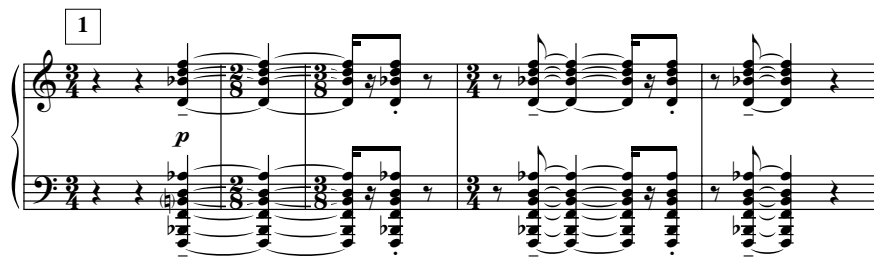
**Prelude, Interludes, Elegy & Postlude**

While the three chapters are the longest sections of the piece, the elements that precede, divide or follow them all have important structural functions.

## Stone Heads

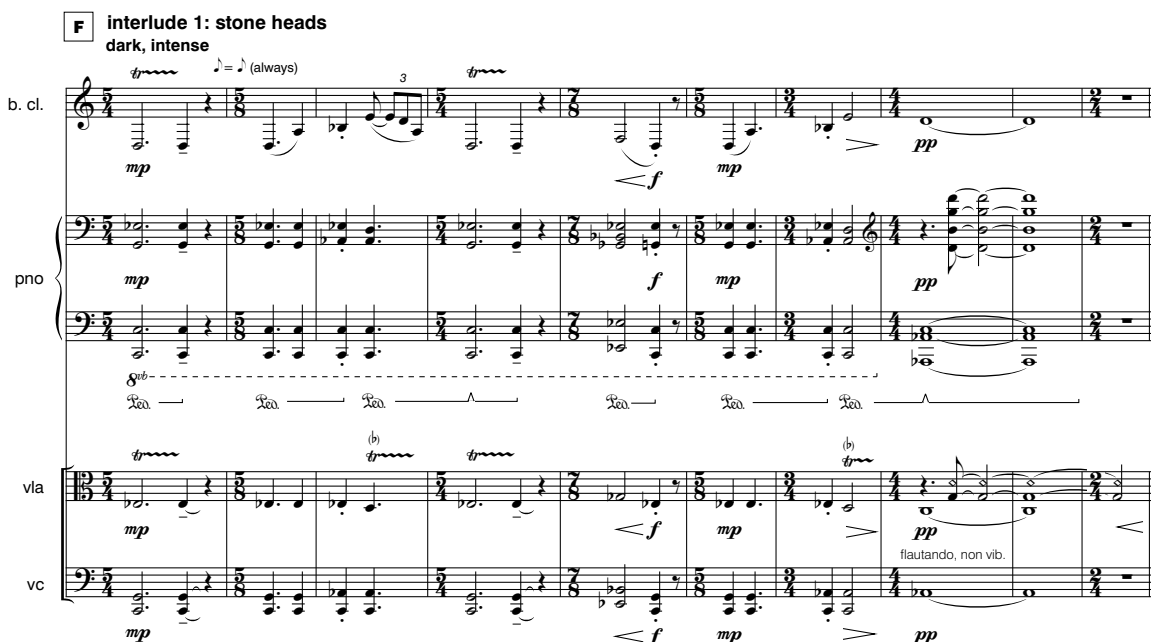
The first and third interludes (stone heads) provide contrasting material but share a pulse-driven metrical scheme based around cells of two or three quavers in a similar manner to the chapter material. The most distinctive elements of the stone heads material are the exclusive use of low-register instruments (no flute or violins) together with minor chords voiced in this low register and the absence of melody. All of which are designed to capture the brooding quality of the stone head carvings that (mostly) gaze inward from the coastline. In conceiving of this music, the shadow of Stravinsky loomed in the form of *Symphonies of Wind Instruments* (figure 1):

### ex.20



This music is harmonically static and my incomplete memory of it was running through my head like an old film. I had forgotten the harmonic bi-tonality (Ab and B natural couched within a widely spaced Bb major triad), so typical of slightly earlier ballet scores of Stravinsky (*Petrushka* and *The Rite of Spring*). What had remained in my memory was the long-short rhythmic articulation of a repeated chord within an irregular metrical pattern; and it is this influence that can be seen in the depiction of the stone heads in *Easter Island*:

### ex.21



## Premonition

This second interlude is effectively new material. Intuitively, it seemed that the work would benefit from substantial contrast in the form of a more spacious, transparent episode. Additionally, this interlude is almost entirely in 4/4 and this is also in contrast to the mixed groupings that precede it. It is based around a 16-note sequence of notes as follows:

### ex.22



These 16 notes show three rising contours of 5, 5 and 6 notes but are initially revealed 4 quavers at a time separated by rests in 3-bars phrases. The rests are not actually silent due to the sympathetic resonance of the piano strings allowed through the use of the sostenuto pedal:

### ex.23

q

interlude 2: premonition



This grouping separates the natural rising contour seen in the previous example and consequently creates interlocking figurations for the middle two groupings in between the rising contour still found in the outer two. The groupings gradually expand (and occasionally contract) into 8-quaver groups at letter T and then begin to separate polyphonically at letter V with canonic imitation. This further builds toward a dark, intense climax at letter X where the full, connected 16-quaver pattern is revealed, dovetailed through the ensemble in octave displacement:

ex.24

The musical score for ex.24 is written for a full orchestra. It begins with a box containing the letter 'X' and the instruction 'dark, intense'. The flute part starts with a rest, followed by a melodic line marked *ff* and *fp*, with an 'ord.' (order) marking. The bassoon part has a *ff* dynamic and a triplet figure. The piano part features a *ff* dynamic and a *8va* (octave) marking. The violin I and II parts have *ff* dynamics and a *slow* to *fast* tempo change. The viola part has a *ff* dynamic and a *slow* to *fast* tempo change. The cello part has a *ff* dynamic and a *n* (no bow) marking. The score includes various performance instructions such as '8va', '(loco)', and 'Xoo, (keep down until letter Y) (release sost.)'.

The premonition interlude starts out as a murmur in the breeze – or as if looking at the island from high above and by letter X, finally grows into a full-blooded nightmare (the theme repeated 3 times before ebbing away as if to a distant memory upon waking).

**Elegy**

The next major ensemble climax occurs toward the end of chapter 3, 'collapse' and this is followed by a brief elegy for cello and piano. The piano plays spare open-spaced triads and is subsequently joined by the cello, whose melody follows the piano contour and whose outline is comparable to the turnaround melody in its use of interlocking conjunct and disjunct motion. The elegy counts the cost of human life lost through the collapse of a society in crisis.


**Prelude and postlude**

The prelude and postlude constitute the beginning and the ending of the full work. They were also the last sections to be composed. It was planned from early on that these sections would be for solo flute but the actual notes were not finalised until very late in the composition process.

The opening prelude for solo flute was extracted from chapter 1 but taken away from the metrical context of the piano accompaniment, assuming a much freer sense of phrasing and pulse:

### ex.25

**prelude: uninhabited island**  
lyrical, freely: ♩ = 96  
non vib.  
flute



*mp* *bend*

The musical score for the flute prelude 'uninhabited island' is written on a single staff in treble clef. It begins with a 4/4 time signature, followed by a 3/4 time signature, then a 4/4 time signature, then a 3/4 time signature, then a 4/4 time signature, and finally a 3/4 time signature. The piece is marked 'mp' (mezzo-piano) and 'non vib.' (non-vibrato). A 'bend' instruction is placed at the end of the piece. The score features a long, sweeping melodic line that spans across the bar lines, with various rhythmic values including quarter notes, eighth notes, and sixteenth notes. The piece concludes with a double bar line.

When taken in combination, the changing metre together with ties over the barline, grace notes and the tempo direction 'lyrical, freely', it is unlikely that the barlines are in any way audible to the listener at this initial stage of the piece. The aural result is therefore hearing that which is initially relatively free in pulse later revealed in chapter 1 in 'quantised' form as actually highly metrical. This could programmatically be viewed as man's attempt to bend nature to his will – though in fairness this is an afterthought, not a compositional intention.

The concluding postlude repeats the prelude but in a slightly abridged form – thus underlining the programmatic direction "...to dust we shall return". It is additionally performed offstage, so it is literally (as well as structurally) a shadow of its former self.

### Revisions

Minor adjustments were made in rehearsal – most notably, a repeat was inserted for the reprise of the stone heads. Hearing the live ensemble should, in theory, match one's imagination of the sound of real instruments. And for most composers, this is increasingly true with accumulated experience. There are often surprises though, and it is a composer's task to re-assess the overall phenomenological 'experience' of hearing the real sound in time in the context of an acoustic space (venue). Despite knowing from the outset that the stone heads reprise would be extended to reflect the (literally) growing presence of the statues to the Easter Islanders, it needed to be longer still. The repeat was added for the premiere performance and this was an improvement. Some weeks later, upon further reflection, the violins were added to the repeat, doubling the lower material, up high (sul pont.). The initial plan was for the stone heads interludes to exclude the higher instruments (flute and violins) and they still largely do. But the added repeat needed an extra dimension and deviating from the strict plan was a minor price to pay for a larger benefit. Most other revisions did not involve extra bars or notes, merely refinements to the articulation, dynamics and colour of the work.