PhD in Composition

Forming a musical language: compositional research on notions of structure and material and on associations between music, poetry and film

Panos Ghikas

Goldsmiths College University of London

Abstract

The objective in this compositional research has been to arrive at a state in which a compositional language is, to some extent, formed through a process of challenging personal perceptions and investigating the application of extramusical art forms. An initial concern with structure led to a study of the use of duality and the notion of indeterminacy. Subsequently, a partially self-referential system for deriving musical material was developed, in which the elements of pitch and rhythm are directly related through particular ratios. The apparent associations between poetry and music and a personal interest in Surrealism as a movement, led the course of research to a detailed exploration of Greek poet A. Embiricos' prose poem Many Times in The Night (1980). The poem's structural matrix was applied upon independently derived musical material and, through a series of analogies, a complex matrix for a time structure was established. A turn towards free improvisation and an interest in film language introduced new ideas on the temporal and sequential manipulation of structure and perception. The film-editing process as a sequence of events in time, and the layering of visual and temporal activity as a technique of creating an evolving density of sensory events provided the basis for expanding the compositional concern with duality and indeterminacy.

The research process, as a mutable investigation of possible associations between music, poetry and film, appears to be itself an inevitably inconclusive form of compositional language, defined by the ideas of Surrealism, Serialism, indeterminacy, chance and improvisation.

Acknowledgements

I would like to express my gratitude to the following people:

(in no particular order)

The Kreutzer Quartet, Linda Merrick, Maya Momçiloviç-Jordan, Pedro Gomez-Egaña, The Bohman Family, Christopher Redgate, Vassilis Letsios, Maria Margaronis, Niki Lambropoulou, Keith Duncan, Andros Onoufriou, Françoise and Laurence Hope, The Chap, The Goldsmiths Music Dep. Research Committee, Olga Neuwirth, The Hellenic Foundation for Culture and everyone else left unmentioned, for every kind of support they offered.

Peter Sheppard Skærved, for his help and confidence in my work.

Roger Redgate, for our long conversations, his persistent questions and overall support.

Johannes von Weizsäcker and Panos Poulos, for their invaluable friendship and inspiring musicianship.

I owe the deepest gratitude to my parents, Dimitris Ghikas and Aglaia Athanassiadou, for their unfaltering confidence and interest and for every sacrifice they made in their vital help towards me.

Finally, I dedicate this PhD to my beloved wife Claire, who was there every moment of its making and without whose immeasurable support I would have almost certainly given up.

Table of Contents

Abstract	2
Acknowledgements	3
Table of Contents	4
Portfolio Audio CD Track listing	5
Introduction	6
Chapter 1 - Threshold	8
Chapter 2 - Condor Sylens	18
Chapter 3 - Many Times in The Night	32
Chapter 4 - The Film Sextet	63
Chapter 5 - egg	80
Chapter 6 - The Solar Anus	83
(Chapter 6) - Rhetorics	86
Conclusion	94
References	99
Appendix	101

Portfolio Audio CD Track listing

The CD can be found attached on back cover

- 1. *Threshold* for viola and clarinet in Bb 3':32" Peter Sheppard Skærved (vla), Linda Merrick (cl)
 - 2. Condor Sylens for solo piano 3':01" Maya Momçiloviç-Jordan
- 3. Many Times in The Night for string quartet 9:06"
 The Kreutzer Quartet
 - 4. egg for solo oboe and two CD players 4':40" Christopher Redgate

[5-11]: *Rhetorics* for violin and cello Panos Ghikas (vln), Johannes von Weizsäcker (vcl)

- 5. Rhetorics (Session 3) 1':20"
- 6. Rhetorics (Parallel) 1':14"
- 7. Rhetorics (Serial 11-12) 1':08"
- 8. Rhetorics (Serial 10-11) 1':08"
 - 9. Rhetorics (Serial) 1':30"
- 10. Rhetorics (Serial violin) 1':30"
- 11. Rhetorics (Serial cello) 1':30"

Total time: 30':01"

Introduction

This commentary is a presentation and analysis of the submitted works and an account of the research process which led to their composition. The objective has been to arrive at a state in which a compositional language is, to some extent, achieved and basic pre-compositional and compositional questions have been answered, even temporarily. In that sense, the commencement of the research process may be considered as a starting point, before which nothing has been questioned (or answered). This position can be said to be arbitrary, as one is already led to research in the realisation that there are questions which need to be answered and that the time needed to answer them exceeds by far the time to compose a performable piece of music.

Before the decision to engage in the research process, my compositional output had been mainly guided by intuition and driven by inspiration drawn from extra-musical ideas, concepts and events. The question 'why compose?' had the obvious answer that 'it happens to be my ideal medium for self-expression and communication'. Given that this compulsion to compose was the result of an existential 'one way route', an intellectual obligation, I sought to combine my instinctual musical ability with the abstract and intense condition one finds oneself in when trying to navigate their thoughts through the existential and philosophical maze which is modern life. Essentially though, my compositions were a purely intuitive reflection of these thoughts and, as a consequence, subjectivity was almost in total control of compositional decisions. Aesthetic and structural choices stood unchallenged and the question of language was just a matter of transient influence or momentary style.

Thus, the start of this academic research process coincided with my decision to challenge everything that is composition. Plain interest in the modern condition would be insufficient and unscrutinized acceptance of compositional and aesthetical decisions could lead to unconvincing results.

The first field of compositional research was that of structure. Bypassing the interrelation between structure and material I tried to analyse and understand the use of structure by composers who presented either an individualised construction theory for each of their works or a generalized structure theory. Threshold for viola and clarinet B flat is the first piece that was composed, its main focus being structure. Thereafter, my interest shifted to material: the relationships between pitch and rhythm, the use of notation as an abstract and arbitrary interface and as a field of semiotic exploration, the investigation of the quantifiability of sound and issues of performance. In parallel to this research, Condor Sylens for solo piano was composed. Consequently, what defined my output was the experience of composing those works combined with a growing interest in surrealist art (especially poetry and film), free improvisation which generated a sound world unreachable to traditional musical logic and film as a compelling structural template. Egg for solo oboe and two CD players and Rhetorics, a 'directed' improvisation for violin and cello, are works based on the above research.

Many times in The Night for string quartet and The Film Sextet for percussion, double bass, violin, oboe, clarinet in B flat, piccolo, and three VCR players will be analysed to a greater extent, as both pieces expand on my initial ideas on structure and material to the point of providing the foundation for a compositional language.

The Solar Anus is a piece for orchestra which applies the results of the creation of this compositional language but in a mostly intuitive approach.

Finally, this chronological presentation of research and compositional output is followed by an attempt to conclude and describe what may be called a compositional identity, a fluid amalgamation of a musical language that must evolve rapidly.

Chapter 1

Threshold

viola and clarinet in Bb

A common definition of structure as an abstract entity is 'something arranged in a definite pattern of organisation' (Merriam-Webster Online Dictionary, 04-06-2004). Considering the physical dimensions of this 'arrangement' one is inclined to imagine either a spatial or a time-related one (or a combination). Whether arranged by nature or by a logical being, a spatial structure can have infinite possibilities of existence even if the arranged elements, the constructive molecules, are all identical. Obviously the possibilities diminish drastically once we move from three to one dimension.

A time related arrangement is a one dimensional structure and music is such a time structure. Within the confines of one dimension music is in a sense a coherent succession of sensory events in which elementary particles are combined on the one-directional axis of time. Depending on one's focus these elementary particles can constitute a frequency, a note, a 'chord', a gesture, a theme or even a whole movement. In general, different types of musical material (whether defined by a combination of intensity, speed, texture, density) are placed in succession, effectively as events constructing a work of music.

In my attempt to compose with a primary focus on structure I sought to find the minimum possibilities, the least material needed in order to be able to convey a sense of structure within the dimension of time. The use of only one type of material would have meant the need for it to evolve in order to give the sensation of change within time. But the aim was not to focus on this type of development but to create an overall structure which conveyed change through a succession of material which had to be static within its self. Thus two kinds of static material, interchanging or overlapping could be the elementary particles of this structure. These would be the two constructing blocks.

Having constructed this compositional framework of limitations I then made some empirical observations which reinforced my 'dual material' structural approach. Duality, the coexistence and interrelation of two different conditions or entities can be considered, within a certain degree of generalization, as the minimum formal element in structures ranging from ancient narratives to traditional music and from classical philosophy to modern political propaganda. Its universal use in the form of zeros and ones in the digital domain reflects its capacity to construct and store information using the least possible elements. Its deployment in the form of good and evil in religion, politics, and mainstream narratives such as film ensures clarity and directness in the message which is communicated. Duality in music, the use of two contrasting ideas/themes, the elemental 'ABA' form and the idea of tension and relaxation seem to reflect the need for structural transparency and, consequently, perceptual immediacy. Having ensured my 'dual material' framework was adequate as a constructive base I investigated means of generating a structure which departed from the 'ABA' form and its derivatives.

The start of the 20th Century and the departure from tonality and all its implications, including structural formality, coincided with major developments in the way human beings observed nature and perceived themselves. What composers previously sought to describe as nature or the inner self was now quantified and described in ways which challenged the arbitrary notions they used to ascribe to their work in their attempts to express and reflect their world. New socio-political theories, scientific leaps and theories of the mind replaced established modes of thought and creative templates. While the historical consequences of Marxist theory and Quantum mechanics, for example, are well known, my attention was drawn to Psychoanalysis, a theory which, however much criticized, created new perspectives on the human mind and instigated a wave of art movements, the most important being Surrealism.

What seems compelling is that for the first time the human consciousness was described by Freud as a complex interaction between mental processes

which mostly take place beyond ones perception and rational explanation. The subconscious, as the mental space within which one exists without the pressures and constraints of the social and physical environment, creates an existential dichotomy between the conscious mental activity and behaviour and the clandestine, forbidden material of dreams and repressed emotions and memories. This is a polarized duality of existence which compellingly describes the modern condition. These two parallel processes became what I sought to reflect in my two types of musical material. What remained to answer was how they interact or more accurately how they interrupt each-other.

At this point the concept of the *Freudian Slip* provided a potential solution. According to *The Fontana Dictionary of Modern Thought* the *Freudian slip* is:

"...a momentary and transient breakdown in the defensive position of the person, as a result of which he gives unintended expression in speech to repressed thoughts and feelings."

(The Fontana Dictionary of Modern Thought 1988: 334)

This accurately describes the point at which the previously described polarized duality is expressed. Effectively human behavior, during the *slip*, is invaded by the subconscious and the material of dreams infiltrates the reasonable conscious.

Transferring this idea upon my compositional framework I decided to compose two types of material, two contrasting pieces: one for solo viola and one for viola and clarinet in B flat. Both pieces have a 'static' quality, a succession of gestures which recycle within themselves, eluding any obvious notion of forward movement and perceivable development. The solo viola material reflects the conscious condition through a long, dynamically subdued, static gesture. The duo for viola and clarinet in B flat material reflecting the subconscious condition is comprised of two independent parts intended to be performed synchronously; the

gestures remain static but the overall energy, both in terms of density and dynamics, is very high.

What follows is an outline of the general structural concept:

The violist performs the solo viola material - which I call *condition 1*- as if it is literally a solo piece of work. At the same time the clarinet part is played through, but is almost inaudible because the performer is directed to 'blow through' without producing actual sound but to reflect the notated dynamics by physical action and by tapping on the keys. The clarinet part is played as a loop. So far this reflects the coexistence of the two conditions of consciousness.

At various points during the viola performance of *condition 1* a mechanism (which will be analyzed later) triggers the clarinettist to abruptly interrupt the violist by starting to articulate loudly the part's actual notated dynamics. At these points the violist immediately switches to *condition 2*: the viola part of the duo material. As soon as the clarinet stops (prompted by the mechanism to be analyzed later) and returns promptly to blowing and rattling, the violist promptly switches back to *condition 1* and attempts to continue exactly from the point the interruption took place.

After a given number of interruptions the violist is left to reach the end of condition 1. At this point both instruments immediately perform synchronously the duo from beginning to end (condition 2 and clarinet part), without any concern for vertical co-ordination. In the case of one instrument finishing earlier, the other also immediately stops.

There follows a presentation of the intuitive compositional process through which the above mentioned material was created, followed by a description of the way in which the use of the *Freudian slip* forms the structure of this piece.

Solo viola material – condition 1

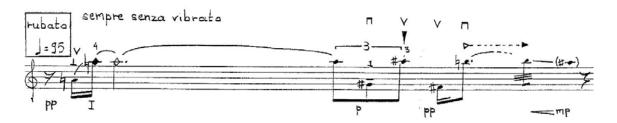
In order to convey a predominantly gestural feel without a strict sense of pulse, I chose not to use bar lines and time signatures. Two pitch cells were created intuitively (Ex.1).

Example 1



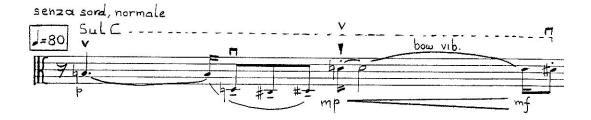
Cell A can be seen first exposed as a 'senza vibrato' gesture (Ex.2).

Example 2



Cell B can be similarly seen in the 'sul C' gesture (Ex.3).

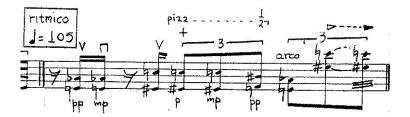
Example 3



What constitutes the biggest part of *condition 1* is an expansion of these original gestures using tuplets, speed and colour changes and subtle dynamic fluctuations, combined with the recycling of the gestures using upward semi-tone and three semi-tone transpositions of the cells and their inversions/retrogrades.

Another element in *condition 1* is the gradually increasing interception of the predominant gesture by small, obviously rhythmical cells, featuring exclusively double stops (Ex.4).

Example 4



This element is a reference to solo viola - *condition 2* material and provides a thematic link between the two conditions. Despite their gestural dissimilarity which is enhanced by the *rubato* and *ritmico* indications, the two elements are homogenised by the use of subtle dynamics.

There is one characteristic of *condition 1* which subtly implies variance without conveying the sense of structural development: the *rubato* sections gradually slow down from J = 95 to J = 70 whereas contrastingly the *ritmico* section accelerates from J = 105 to J = 125. This attempts to reflect the 'compulsion' of *condition 2* to infiltrate *condition 1*.

Solo viola material - condition 2

A sequence of four intuitively chosen two note chords (double stops) formulates the pitch material used in *condition 2* (Ex.5). Its linear exposition uses the pitch cell used throughout (Ex.5), transposed and inverted/retrograded.

Example 5



The prominent features here are designed in such a way as to counteract the sensation produced by *condition 1*. Dynamic fluidity and textural variation are minimized but everything is equal or louder than *forte*. It is mainly this loudness and the counteraction between fast passages and elongated double stops that creates the intensity which attempts to reflect a state of subconscious tension.

Solo clarinet material

Similarly to the approach to the viola material – *condition 2*, a pitch cell (Ex.6) was intuitively formed and expanded upon thematically using two transpositions and their inversions/retrogrades. Here the intensity intended is emulated by the tension between long evolving notes and passages containing rapidly repeated pitches.

Example 6



It is calculated so that the viola - *condition 2* and the clarinet material have approximately the same duration.

The Freudian slip solution

It is apparent that the mechanism by which the clarinettist is prompted to act as the trigger for the *Freudian slip* defines the structure of the piece. Ideally this mechanism should emanate from the composed parts in order for structure to be an integral component and not arbitrarily applied. In my search for means of defining the points of interruption I looked at the solo viola – *condition 1* part for potential triggers, for a '...transient breakdown in the defensive position of the person...'. Condition 1 contains dynamics which range from ppp to mp maintaining a subtle fluctuation. Nevertheless there are very few points at which the dynamic indication reaches the mf and once the f. One could consider the

dynamic indication of *mp* to be the threshold of 'normal' gestural intensity. The transgression of this threshold could mark the point of interruption. Thus, the initial plan for a performance of *Threshold* included a device which would notify the clarinettist of these violations of 'normal' gestural activity. Essentially, the device would be a sensitive microphone linked to a simple signal gate which in turn could switch a light on and off, on stage, but would not be visible to the viola player. This way the structure would not only be perceivable by the violent interruption but in addition, the flashing light could add a theatrical element to the performance by signalling the *slip* through the gate threshold. For various reasons this initial plan (which gave its name to the piece) failed, mainly due to the fact that defining the subjective dynamic of *mp* as a threshold lacked any degree of physical accuracy, rendering the device and the whole performance unreliable.

Consequently I sought a more objective and reliable process for defining the interruption points. The number and duration of the interruptions would be intuitively decided and the actual timing of them would be defined through an aleatoric process determined graphically. What follows is a description of this process:

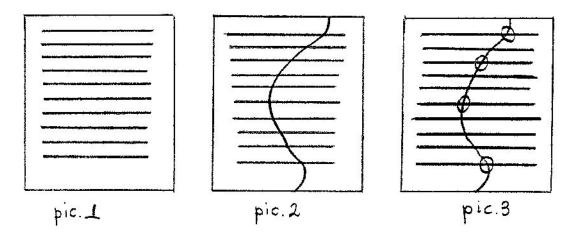
Predetermined parameters: Number of interruptions: 4. Durations of interruptions: 1st~ 2 seconds, 2nd~10 seconds, 3rd~20 seconds and 4th~4sec.

Graphic determination of interruption points:

The clarinettist is given a miniature photocopy of the viola solo (*condition 1*). The part as seen (Ex.7/pic.1) has 10 staves. Using a pencil a random line is drawn, starting from top to bottom (Ex.7/pic.2). The line should cut each of the 10 staves only once, creating 10 'cutting' points. Out of these, 4 are marked with a circle (Ex.7/pic.3). There should always be at least one stave between 2 circles. These are the 4 interruption points. The procedure takes place a few moments

before the performance, out of the viola player's sight. This ensures the element of surprise for the viola player.

Example 7



The viola player can use the same graphic procedure to determine the starting points for *condition 2*. The part for *condition 2* has only 4 staves and as a consequence only 4 'cutting' points can be determined. For that reason the last one (4th) should be repeated. If the viola player reaches the end of *condition 2* and the clarinetist is still playing, the viola player should promptly start from the top.

Concluding, through the above described interruption process, *Threshold* essentially became an aleatoricaly defined mobile score. Its mobility though is confined within the limits of the chance procedure which crucially takes place on the actual score. In effect, the random line which is drawn from top to bottom cutting through the score is an alternative 'time-route' for the notated events, confined within the geometrical limits of the score's graphical layout. This structure may not emanate from the expressive or motivic parameters of the composed material but from its visual representation which represents the final construction of these parameters.

Threshold was commissioned by Peter Sheppard-Skærved (viola) and Linda Merrick (clarinet) to be performed at a London College of Music concert on 23-

03-2000. Their support during the composition and rehearsal was crucial in defining and finalizing how this piece could in reality work. A second performance was given at the Darmstadt 2000 Summer Music School by Dmytro Vasylyev (clarinet) and Dahlia Shehata (viola) on 28-07-2000. The extreme difference between those two performances highlighted the fact that the dynamic balance between the performers' personalities had a huge impact on how *condition 1*, *condition 2* and the *slip* where interpreted and perceived.

Chapter 2

Condor Sylens solo piano

Following an initial exploration of structural determination with *Threshold*, in which a duality of material was manipulated by an aleatoric process delimited by the material itself, my research focused on attempts to define what I have arbitrarily referred to until now, as musical material.

Modernism, as a mode of thought which challenged western perceptions of tradition and evolution and created new perspectives on form and system organization became a fascinating departing point for this research. In the field of music, Modernism, expressed through Schoenberg's serial technique, sought to expire a musical language ridden with rules which had lost their meaning. Serialism initially dealt with the parameter of pitch by discarding the notion of tonal hierarchy and organizing it based on 'objective' principles reflecting a prevailing humanistic notion of equality. Webern's expansion of this internal organization of pitch to the level of motivic structuring expressed the need to extend this challenge of the tonal language to other musical parameters. Cowell's New Musical Resources (1930) and Messiaen's Mode de valeurs et d'intensités (1949) are critical attempts to organize pitch and rhythm/duration within an integrated system of relations. Based on a subjective truth such as the natural overtone scale or a modal preference, a system was constructed in which musical elements of pitch, rhythm, duration and their defining parameters were derived and formed part of an exclusive totality. This process culminated in the post-WWII structuralist absolute of integral Serialism of Stockhausen and Boulez.

Rejected later by Boulez himself, due to its 'static' results as an 'experiment', integral Serialism has many legacies and the most compelling for me is the expansion of the perception of parameters which constitute the musical material. Whether the 'pointillistic' sound of *Structures I* (1952) was received as an irresistible new language or an overwhelming, dictatorial pronouncement of an

emotionless and rigid system, composition undeniably became a deeper process involving multiple layers of qualitative categorization and micro-/macro- structural organization. The composers' quest for parameters and serialization theories contributed to an expansion of compositional thinking both on an aesthetic and a structural level, deriving various processes and techniques of creating and manipulating musical material.

Stockhausen's '...How Time Passes...' (1957), Xenakis's Stochastic music theory and Cage's music of chance presented concepts attempting to unify the determination of musical parameters. Physics, mathematics, metaphysics and philosophy became the means for a credible association between Music as a human artifact and Nature as the undisputed universal constant. In the case of Cage, his concepts on *chance* and *silence* revolutionized, beyond return, the way the modern listener perceives music and sound, transcending the impact of his compositional work. The 'scientific' approaches of Stockhausen and Xenakis have been heavily disputed, both in terms of actual scientific credibility and of veritable application in the sphere of music. Conceptual shortcomings notwithstanding, their compositional output has been of compelling intensity, creating a highly individualized, original and ingenious musical language, proving that the concepts, despite their level of accuracy and applicability, provide the mere foundation upon which pure musical intuitiveness essentially derives its inspirational fertility for invention.

The multilayered activity and spontaneous nature of free improvisation combined with the arbitrary processes in which a number of musical parameters are quantified, developed and represented notationally as accurately as possible (as in the works of Ferneyhough), became a focal point of my research. I found a great interest in works that combine rhythmical non-linearity and formal unpredictability with a gestural forward-movement, all within a unifying structural concept. Such complexity of musical elements requires an adequately complex notation system, which is capable of expressing them at a substantial level of accuracy. In that sense 'complex' notation is of great interest since it deploys an

established notational language and extends its vocabulary by introducing detail and parameter organization in levels that challenge the accepted thresholds of performability and perceivability.

With these thoughts I started to plan the composition of *Condor Sylens* for solo piano, inspired by readings of surrealist poetry. Language as a system of human expression by means of words is often being compared and paralleled with music as it is a notated sequence of elements (words) and forms a code of communication; A more satisfying parallel that transcends the semiotic specificity and functionality of words can be found in poetry through which language is transformed into an art form with intrinsic similarities to music; it re-contextualizes the semantic content of its material (language) conveying an abstraction, essentially musical.

My first composition which was informed by Surrealism and preceded *Condor Sylens* was *The Exterminating Angel* for prepared piano and clarinet B flat in which the conceptual focus was atheism. In *Condor Sylens* Luis Bunuel's (*The Exterminating Angel*, 1962) atheist vision is extended and transformed into a metaphysical condition where the sensations of silence, spontaneous (re-)action and verbal conjugation subtly coexist. This condition is 'described' in Greek surrealist poet Andreas Embiricos' three poems from his collection *OKTANA* (1980): $H \Sigma \iota \omega \pi \dot{\eta}$, $T \omega v E \pi \iota \pi \tau \dot{\omega} \sigma \varepsilon \omega v$ or $\Pi \tau \dot{\omega} \sigma \varepsilon \iota \varsigma$, $H \Pi \dot{\sigma} \rho \tau \alpha$, translated below by Maria Margaronis:

Silence

Even though works remain unrealized, even though the silence (pulsing within them) is complete and a perfect zero is described, like a voiceless open mouth, always, but always, silence and all that is unrealized will contain a great, full mystery, an overflowing mystery, without gaps and without absence, a great mystery (like the mystery of life in the tomb)—the visible, radiant and complete mystery of the existence of life, Alpha-Omega.

The Cadences of Consequences¹

Like declensions of angels into the gulf of heaven, like lightning bolts or like the rapidly repeated falling blows of Chance, cadences fell upon cadences and so (by chance), with clear and full pronunciation, with unstoppable force, like a fiery, passionate ejaculation, there gushed from the lips of the Greeks the words: consequence and consequences.

The Door

The door opened and shut with a bang. Those inside the little house called, "Who's there?" Seeing that no-one had entered and no answer came, those inside the room concluded: the wind must have slammed the door.

And yet, the stillness was absolute. One would have thought that time had stopped. For all that, behind the closed window the curtain stirred like a veil fluttered by gusts of wind. In the room something was fanning the air, motionless until recently—as if now, there, the wings of a great stork were beating, as if a white archangel hovered there, ushering into the closed room upon his sword-point the radiance of the heavens.

The mistress of the house looked dumbfounded at the others. Then, all at once, they looked at the vase placed on a small console and stood thunderstruck...The paper blossoms contained in the vessel were growing for a moment like real garden flowers and the humble space was filled with fragrance, like a place of sanctity, a place of saintliness.

(trans. Maria Margaronis 2002, unpublished)

¹ Translator's note: In Greek this ironic poem plays on the word ptosis, which means fall, case (in grammar) and cadence (in music); and, in the compound form epiptosis, consequence.

In his poems Embiricos redefines grammar, meanings and syntactical functions. Syllables, words and phrases appear in multiple semantic levels. He rearticulates notions, creates purely gestural effects deploying the most mundane words and subverts syntactical linearity. This method of conjuring new meaning utilizing the pre-established code of a traditional language pointed me in the direction of working within the confines of traditional notation.

Having established the conceptual and notational framework for this composition I chose, through a purely intuitive process, the pitch material. Then I attempted to invent a logical process of deriving from it other parameters such as the rhythmic material and dynamic articulation, creating a relatively self-referential system.

Given that all possible pitches naturally pre-exist, the idea of pitch as material to be invented seemed extremely subjective, in the sense that it is simply chosen. This choice I saw to be a purely intuitive one and of great compositional importance as it constituted an image of personal preferences on pitch and intervals, a musical vocabulary which is intuitively formed equally by an assimilation of influences and a process of aesthetic elimination.

Combinations of four intervals (major 7th, minor 7th, major 9th, minor 9th) where used to create six four-note chords (Ex.1). The use of intervals as a starting point served as a means of determining pitch relations and conveying a sense of sequential priority. The choice of combining those particular intervals was related to a personal perception of them as 'open', 'suspended', 'ambiguous' and 'anticipatory'.

Example 1



Subsequently these six chords where projected horizontally in such a way that they each created an individual melodic pattern (Ex.2). This horizontal projection compressed the intervallic material within the space of a fifth (C-G) providing a collapsed version of the original intervallic material but, more importantly, deriving a sense of *enhanced attraction* to certain pitches which are repeated throughout. I became aware of this notion of *enhanced pitch attraction* after realizing that the pitch sequence brought to the perceptual foreground certain pitches according to the frequency and density of their occurrence.

Example 2



After reprocessing the 24 notes (Ex.2), a final, Original series was produced comprising of 19 notes (Ex.3).

Example 3



Within the 'O' this sense of *enhanced attraction* to certain pitches is even more prominent and can be attributed to various parameters such as repetition, density of repetition and intervallic context. Essentially, *enhanced pitch attraction* substitutes the idea of *tonality* by bypassing the notion of pitch hierarchy and intervallic tension and resolution. Instead, quantifiable parameters such as repetition and density increase the aural memory of certain pitches by raising

their prominence. At the same time this approach is serial, as it involves a tonerow and not a scale or mode, but the result ignores Serialism's original pursuit of equal distribution of all pitches and avoidance of subjective associations.

Consequently, *enhanced attraction* could be considered the most defining structural characteristic of the series. Furthermore, observing the other three forms of the series (Ex.4) it is apparent that the sequential organisation of this *enhanced pitch attraction* takes various forms which, apart from being closely associated, slowly brings into existence a specific relation between the vertical (pitch) and the horizontal (time) aspect of the composition.

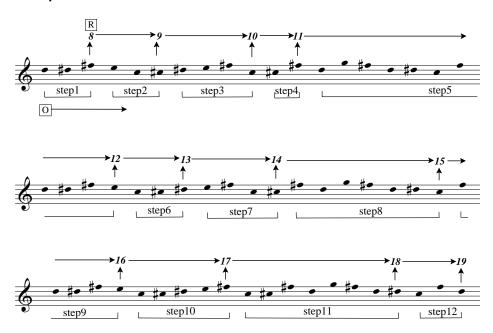
Example 4



Considering various approaches regarding the exposition of the above material I discovered another intrinsic and crucial structural element of the series:

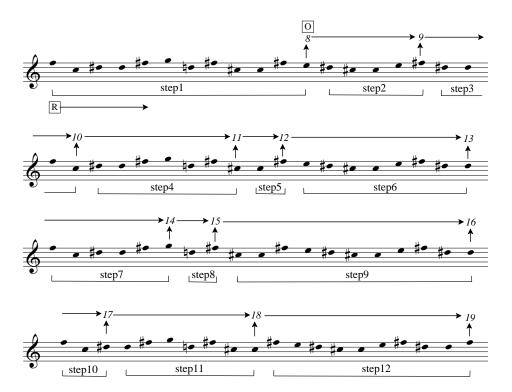
Observing the 'O', one can identify the 'R', 'hidden', in a 'stretched' manner. More specifically the last 12 notes of the 'R' can be 'stretched' and expanded throughout three repetitions of the 'O' (plus the first pitch, D), (Ex.5):

Example 5



Similarly the last 12 notes of the 'O' can be expanded through out four repetitions of the 'R' (plus the first pitch, F), (Ex.6):

Example 6



The latter observation could be described as a simultaneous unfolding of the two versions of the series but also as a structure within a structure:

'O' and 'R' are exposed in a single line (Ex.5) but the sequence of material belonging to 'R' has a different density in time, and is unfolded in irregular steps in relation to 'O'. Obviously, the inverse type of exposition applies to the material belonging to 'O' (Ex.6). This structural idea would not be of interest if applied to a true 12-note series, since the absence of repetition would mean the 'O' would have to be repeated 11 times in order to have the whole expanded version of the 'R' within it and the steps would always be regular, containing 11 notes. Thus the ability to simultaneously unfold the two versions in irregular steps is an intrinsic element of the series and is evidently related to the element of *enhanced pitch attraction*.

In Ex.5, the steps, i.e. the number of notes contained within 'R's pitches represent the manner in which the 'R" is contained within the 'O", (Ex.7):

Similarly in Ex.6, the steps, i.e. the number of notes contained within 'O''s pitches represent the manner in which the 'O' is contained within the 'R', (Ex.8):

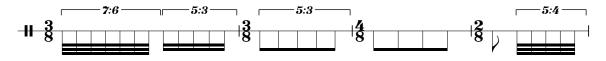
The above numeric rows (Ex. 7 and 8) represent densities or *structural* consistencies of unfolding material: the consistency of 'R' pitches within the 'O' and 'O' pitches within the 'R'. Moreover, considering those pitches as events in time, one could perceive those *structural* consistencies as the manner in which 'R' events are contained in the 'O' and vice versa. These two time-layouts of pitch material can be numerically associated. Assuming, that in the 'O' these events occur in a regular manner, an abstract time-unit, a pulse, the 'R' respectively occurs in multiples of that time-unit. This implies the possibility of

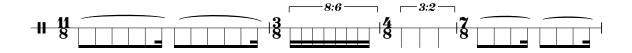
articulating these *structural consistencies* as rhythms. For example, if the 'O' is unfolded in units of quavers then the first 'R' event would occur after three quavers, the second after three, the and third after four, etc. (see Ex. 5 and 7). This demonstrates an irregular unfolding of one structure within another which can be expressed using rhythmic ratios. Subsequently, the numeric ratios between the corresponding steps in the two *structural consistencies* (Ex. 7 and 8) represent the irregular occurrence of the two rows within each other. For example, in the second step the *structural consistency* ratio of 'R'/'O' is 5:3 (Ex. 7 and 8). Rhythmically notating this, I arbitrarily chose a value to create a bar of 3 units (e.g. quaver) and divided it by 5. The result is a rhythmic ratio of 5:3 in a bar of 3/8.

Thus I derived a series of 24 bars with specific rhythmic ratios; 12 bars from 'R'/'O' and 12 bars from 'O'/'R'. The absolute values of the time-units (quaver, semiquaver, etc) were chosen partly arbitrarily and partly with a gestural continuity in mind.

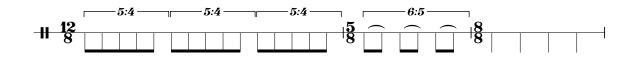
Ex9-(next page)

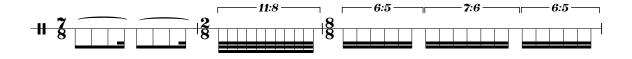
Example 9

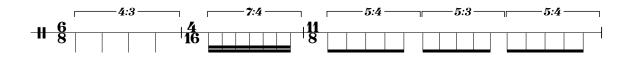


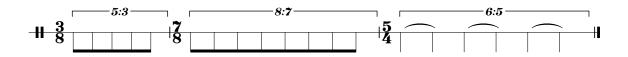












The rhythmic series' fluctuation of density and irrational rhythms reflects the irregularity of the pitch series' intrinsic *enhanced pitch attraction*. Applying the same concept on the 'I' and the 'IR' of the series one derives a completely identical 24 bar rhythmic series (in terms of rhythmic ratios). This is explained by the fact that the 'O' and the 'I' have the same (absolute) intervallic content, as do the 'R' and the 'IR'.

To summarize the process of deriving the above material:

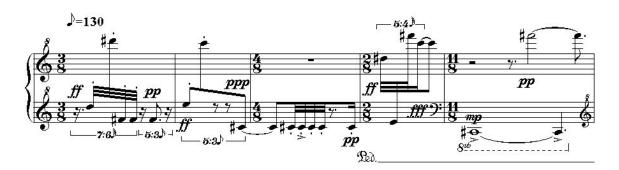
- A pitch series was intuitively derived, featuring the element of *enhanced pitch* attraction.
- Two numeric series where derived by translating the element of *enhanced pitch* attraction into structural consistencies.
- The numeric series represent pitch 'steps' but can equally represent time-units.
- Consequently the *structural consistency* ratios i.e. the ratios between the corresponding steps in the two numeric series can represent rhythmic ratios.
- A rhythmic series is derived by arbitrarily ascribing a time-unit duration and applying the resulting twenty four rhythmic ratios.

Effectively, the method of deriving the above material can be described as relatively self-referential in the fact that a series of associations link the intrinsic qualities of the pitch series to the generation of the rhythmic series. This renders the system partially self-referential and potentially imparts the impression of aesthetic integrity. The 'relativity' determinant in this method encompasses all the intuitive choices and decisions which are reflected in elements such as the *enhanced pitch attraction* or the choice of specific time-units.

Nevertheless, the produced material, the pitch and rhythmic series constituted merely the fabric of the actual composition. When attempting to express this material as musical gestures I was faced with the problem of bringing to the surface its structural associations and constituent qualities. A level of functional transparency was needed if the material's identity was to be exploited. The associations between pitch and rhythmic ratios are too deep into the structure

and too complex to be articulated directly on the sphere of musical gestures. Instead, the elements of *enhanced pitch attraction* and *structural consistency* can be gesturally expressed by means of articulation, dynamic and expressive marks and the introduction of silence in the form of rests and pauses. As can be seen in the opening section of *Condor Sylens* (Ex.10) they shape, link and unify gesturally the pitch and rhythm material but more importantly they highlight the background/contained series (in this case the 'R' within 'O') and project it to the gestural foreground. For example, in the first and the third bar, the F sharp and C sharp from the 'R' are brought to the foreground by staccato, repetition, accents and positioning in a relatively lower register. The opposite effect is used in the fifth bar (F sharp, pianissimo, high register).

Example 10

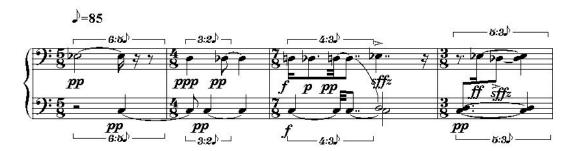


These first five bars form the initial gestural exposition of the material and constitute the main thematic element based on which *Condor Sylens* is developed. The development itself and effectively the overall structure of the work are the product of intuitive decisions which attempt to reflect the surrealist poet's characteristic use of climax.

The following is a general formal plan of the composition:

The large numbers (1-2-3) are repetitions of the series. The '- 4' indicates a downward transposition by four semitones in order to include the rest of the chromatic scale in the composition. The Pivotal Sequence (Ex.11) is a short, free composed passage which uses the common pitches of 'O' and 'O - 4' (C, C#, D, D#) and has a transitional function between the two transpositions.

Example 11



With regards to the use texture, the formal plan consists of a fluctuation in density. The first bars, the pivotal sequence and the end section have a 'clustery' feel, whereas the in-between sections are more 'opened-up' and pointillistic. Finally, with regards to the use of register, the general progression is from very high to very low, contrary to the overall climactic dynamic development.

Chapter 3

Many Times in The Night

string quartet

In Condor Sylens I attempted to combine the production of a partially self-referential musical material with an approach to surrealism, composing within its conceptual framework. In *Threshold* I ignored issues of musical material production in order to investigate possibilities of structural determination. The subsequent step in my compositional research was to investigate the integration of musical material and structure by attempting to determine a compositional model.

The distinction between material and structure seems to serve the purpose of distinguishing the interchangeable and fluid elements of a composition from the crystallised abstract entity which sequentially defines and consolidates these elements within the dimension of time. Essentially, despite this distinction, the generation of both material and structure emanates, in many instances, from the same compositional process.

In tonality, the hierarchies which define the generation of material such as themes, gestures and harmony also define to a degree the overall formal construction in manner of transpositions, proportions and large scale resolutions. The Golden Section and the Fibonacci series have been deployed by composers such as Bartok and Debussy to equally define intervallic content and large scale climax. The use of universal mathematical constants and numbers that can be found in nature reflects the belief by many composers that music can be expressed as a reflection of nature's 'harmony' and therefore achieve a universally transparent and perceivable form. Xenakis's use of stochastic processes and Stockhausen's explorations of frequency, duration and time are an expression of the belief that a mathematical or physical model can generate a musical totality that reflects a natural system. This Pythagorean approach to

science and music as entities which emanate from a universal 'code' has an interest on a philosophical level. However, listening for example to Xenakis's *Metastaseis* (1954) I felt that the immense force of the work originated not in the use of the Golden Section or the stochastically derived glissandi but from an urgent, intellectually unmediated expressive propulsion. Mathematics seemed merely the pretext, the scientific validation of a series of intuitive decisions that constituted the elemental force of the work.

The parallel between music and science or more specifically, composition and scientific research has always seemed a problematic issue. It is true that sound as a phenomenon that can be quantified and analyzed belongs to the domain of both music and science and it is also true that structural thinking is an integral part of both compositional and scientific research. However, there appear to be two crucial points which distinguish scientific from musical practise:

Firstly, scientific research has Truth as its only objective. Experiment, verification and theoretical formulation serve as methods of obtaining a model which describes the Real world in a closer approximation to a previously existent model. The abstract and anthropologically dependent nature of music renders it impossible to attribute to any compositional output such level of objectivity. Each work may contain various levels of subjective truth which are debated within the duration of a performance but no claim can be made towards a universality of such truth.

Secondly but most essentially, the scientific quest for truth arises from a moral imperative which dictates that science will serve Humanity in its struggle to understand Nature. Based on this moral imperative, scientific research combines human intuition, pre-existing knowledge and logic in order to represent an up-to-date Truth concerning Nature. The absence of such universality of truth in music renders the fulfilment of such imperative futile. Furthermore, music and arts in general should never have to fulfil such moral imperative of serving Humanity. Their existence is the result of a non-utilitarian, existential compulsion to express

what is impossible to articulate using rational, mainstream modes of communication. Morality, as an ethics of the mainstream can only limit the subversive potential of human expression which may offer the intellectual choice of more than one truth.

This multiplicity of truths, unadulterated by the scientific vision of nature can be said to exist within the human mind. Human-constructed narratives contain layers of subjective reality, generated by conscious and subconscious processes and the distillation of individual memories which echo reality. Structures which comprise of such indeterminate and fluid narratives seem much more appealing and 'human' than the universally proven and morally 'humanistic' scientific models.

With these thoughts in mind the point of focus in my research turned to language as a system for articulating 'human' narratives. My interest in language lay in the fact that beyond being a mere construction tool for expression and communication, it is an evolving abstract system and a conglomeration of a collective code. Furthermore, as a system or code which expresses a particular sociological, anthropological and historical time/space it allows the possibility of being manipulated, deconstructed and subverted, giving rise to types of human expression beyond the utilitarian needs of communication. Such non-utilitarian expression through the redefinition of language could be said to be conveyed by poetry.

My strong interest in the latter and its parallels with music inspired an extended research in the possibilities of utilizing extra musical forms of expression which deconstruct and redefine their medium. More specifically, I was compelled by the fact that in Surrealism a variety of established narratives were deconstructed and rearranged in a manner which violated anticipation by following a stream-of-consciousness approach. For example, in the film *Un Chien Andalu* (1928) by the Spanish Surrealist director Luis Buñuel, narrative deconstruction is created mainly through the technique of montage. The

sequence of scenes and captions is arranged in such a way in order to temporally disorientate the viewer. Simultaneously, the director violates the viewer's perception of symbolism by continuously redefining his symbolic language. Consequently, what is achieved is a complex, multilayered counternarrative, a structure of moving image and sound that reflects subconscious associations and manifests the material of dreams.

In a similar way to film, Surrealist poetry employs a stream-of- consciousness approach, a freeform automatic manner of choosing phrases and constructing narratives. In the words of French poet André Breton in his Manifesto of Surrealism (1924):

'Everything is valid when it comes to obtaining the desired suddenness from certain associations... It is even permissible to entitle POEM what we get from the most random assemblage possible (observe, if you will, the syntax) of headlines and scraps of headlines cut out of the newspapers...'

(Breton 1924,

http://www.tcf.ua.edu/Classes/Jbutler/T340/SurManifesto/ManifestoOfSurreal ism.htm [Accessed 06-06-2004])

Elsewhere in the Manifesto, Breton presents definitions of Surrealism in the style of entries found in a dictionary and an encyclopaedia:

'SURREALISM, n. Psychic automatism in its pure state, by which one proposes to express -- verbally, by means of the written word, or in any other manner -- the actual functioning of thought. Dictated by the thought, in the absence of any control exercised by reason, exempt from any aesthetic or moral concern.

ENCYCLOPEDIA. Philosophy. Surrealism is based on the belief in the superior reality of certain forms of previously neglected associations, in the omnipotence of dream, in the disinterested play of thought. It tends to ruin

once and for all other psychic mechanisms and to substitute itself for them in solving all the principal problems of life.'

(Breton 1924,

http://www.tcf.ua.edu/Classes/Jbutler/T340/SurManifesto/ManifestoOfSurreal ism.htm: [Accessed 06-06-2004])

What I find compelling is that Surrealist art's quixotic battle with reality does not evade reality itself by substituting it with an escapist, metaphysical or sublime narrative. Instead it breathes and subsists from reality, not in a parasitical way but through the inclusion of the indeterminate and obstinate inner self, the reality of the psyche, dreaming up a state of hyper-reality.

In my search for the Surrealist object/artifact which could be the subject of my investigation of extra-musical art-forms I turned again to Greek poet Andreas Embiricos' work. It was important that this research would have to be in my native language in order to achieve the deepest possible level of understanding and analysis of the work. Linguistic, social and historical references and allusions can only be sufficiently comprehended through one's reading in their native tongue. This seems particularly evident in poetry, the most idiomatic and localized form of artistic expression.

Andreas Embiricos holds a particular place in Modern Greek literature. He was born in 1901 in Braila (which is also coincidentally lannis Xenakis' birthplace), southeastern Romania, and died in Athens in 1975. Between 1926 and 1931 he lived in Paris where he became acquainted with Andre Breton and other Surrealists, and began psychoanalysis with Rene Laforgue. In 1935 he gave a lecture in Athens on Surrealism and published his first collection of Surrealist poetry Blast-Furnace. It was around this time that he introduced psychoanalytical techniques to Greece, which he practiced up to 1951. The impact of his work on the Greek public is described by Y. Yatromanolakis:

37

'In March 1935, eleven years after the publication of the first manifesto of surrealism by Andre Breton, two hundred copies of a collection of sixty-three prose poems entitled *Blast-Furnace* were circulated in Athens. The collection was signed by one Andreas Embiricos (1901-1975), the offspring of a well-known shipping family, with no work published before then. Born in Braila, Romania, to a Greek father and a Russian mother, Embiricos studied economics in Switzerland, literature and philosophy in London and psychoanalysis in Paris. In 1929 he entered the circle of French surrealists, was initiated into the technique of automatic writing and made the acquaintance of Breton in person.

Two months before Blast-Furnace appeared, he gave a lecture on the subject of surrealism to "a grim middle-class audience who listened in obvious annoyance", as an on-the-spot witness named Odysseus Elytis (Nobel Prize 1979) noted. Blast-Furnace holds a unique place in Modern Greek poetry. No poet prior to Blast-Furnace - in spite of indications that surrealism was known in Greece before 1935 - and no poet since, has put together a book so heretical, so cryptic and so 'difficult' - one which nevertheless sold out in no time, 'not because it was of interest, but because it was considered so scandalous, written by someone deranged', as the poet himself reminisces. Without punctuation, in a language mainly scholarly and precocious - something which the proponents of demotic Greek found particularly annoying - with interminable phrases, perfectly constructed but without any apparent logical coherence, yet with the typically Greek fifteensyllable meter clearly discernible, Blast-Furnace seems to have met the requirements of free association and the resultant automatic writing. It would be difficult however plausibly to maintain that these poems had an 'automatic' or 'chance' origin or that no work was done on them, in spite of the fact that Embiricos himself stated that his poems do not always develop 'within the limits of consciousness'. Every poem, he says, is a 'poem-event', dynamic and self-contained, and its elements remain 'free of any compromised or standardised aesthetic, moral or logical construction'.

Embiricos' next collection, *Inner Land* (1945), as well as a short volume of prose, *Writings or Personal Mythology* (1960), contain texts bathed in

surrealist light, but with coherence and logical consistency. It is now quite clear that what was mainly of interest to Embiricos was to keep alive the subversive and emancipating strain of the European surrealist movement and to promulgate the vision of a world free of every type of oppression, a world 'without borders and without limits'. Political, social and particularly sexual liberation were Embiricos' main concern, so much so that he emerged as the Greek poet and visionary par excellence of a world system of politics and co-existence. His city, *Oktana*, described in the collection bearing the same name, "will be the capital of the New World, in the heart of mankind's future", a universal city, filled with poetry, love, pleasure, justice and freedom.'

(Yatromanolakis 2001, http://www.agra.gr/english/31.html [Accessed 14 May 2004])

In Embiricos' collection *OKTANA* (1980), from which three short poems where used as a source of inspiration for *Condor Sylens*, I found myself compelled to repeatedly read a twelve page prose-like poem entitled *Many Times In The Night*. As one of the strongest and most important poems in the collection it presented me with the possibility of using its forcefulness and overwhelming complexity as an ideal platform for my compositional research on extra-musical forms.

The poem's most prominent theme is a sequence of episodes depicting sexual acts, occurring during the night in the city. Surrealism's debt to Psychoanalytical notions on desire suppressed in the realm of the subconscious and the transgressive nature of sexuality can explain the central position that spontaneous activism, violence, clandestine thought, eroticism and sex have in Surrealist works. According to Breton (2001), the ultimate Surrealist act was 'to walk into the street with a loaded revolver and fire at random'. This poetic definition notwithstanding, it is evident that many Surrealist works strive to emulate the primitiveness and instinctual nature of the sexual act. The ultimate

Surrealist act could be said to be the sexual, as a physically transgressive one and as a material representation of anarchic desire and unrestrained climax.

Within the structure of *Many Times in The Night* Embiricos employs the notion of climax on two distinct levels. On a first level, the episodes follow within themselves the natural climax of a sexual act. On a second level, the energy, severity and obscenity of each episode progressively escalates throughout the poem. The sequence of sexual depictions explores the spectrum of sexuality: the first episode depicts exhibitionism and the last one rape.

The notion of a different kind of spectrum is explored through a second theme introduced by the poet: a detailed description of a variety of night sounds placed at the two extremes of the timbral spectrum ('bright and muffled'). Using direct or elliptic sonic descriptions and extreme metaphors he conjures a merging between the sounds of the real microcosm ('whispers') and the imagined macrocosm ('colliding galaxies') of the night. At the same time he correlates the two extremes of timbres to contrasting aspects of the erotic activity. Dream-like descriptions are gradually undermined by the use of harsh, aggressive and grotesque words transforming desire into vulgarity and eroticism into violence, subverting the content by drawing attention to the use of language.

Embiricos opens the poem with a phrase in English: 'Led by the stillness of the night' (see Ex.1, p.38), quoting English poet Edward Young from his poem *The Complaint or Night Thoughts on Life, Death, and Immortality* (written in 1742–45), thus alluding to Breton's inclusion of Young in his Manifesto of Surrealism:

'Young's *Nights* are Surrealist from one end to the other; unfortunately it is a priest who is speaking, a bad priest no doubt, but a priest nonetheless'

(Breton 1924,

http://www.tcf.ua.edu/Classes/Jbutler/T340/SurManifesto/ManifestoOfSurreal

ism.htm: [Accessed 06-06-2004])

With this single quotation, Embiricos suggests the ubiquity of the Night as the 'place' where the suppressed subconscious thrives in the background of the activities he describes. Furthermore, the allusion to Young - the 'bad priest' - prepares the reader for the final climactic part of the poem, where the description of a rape scene is being juxtaposed with references to religious text and chants from the Greek Orthodox Easter Passion. The transgressive nature of this final scene is not simply religious blasphemy. The quoted chants and the dialogue combine the cathartic force of Resurrection and Virgin Mary as a symbol-of-purity/object-of-desire with the vulgarity and violence of the rapists' words and actions, positioning Surrealism's notion of transgressive desire within a quintessentially Greek cultural context.

The salient features of the poem's macrostructure are evident from its first readings: a sequence of contextual entities (episodes depicting sexual acts) is intertwined with a stream-of-consciousness, almost delirious flux of sonic metaphors, leading to an exploding climax of metaphysical proportions.

Through my efforts to penetrate the surface of the poem's macrostructure and define the elements that could potentially form a constructive mechanism on a deeper level, I was brought to the attention of a PhD thesis on Modern Greek poetry by V. Letsios (2003). In his thesis, Letsios analyses in detail the use of language by Embiricos and includes an in depth analysis of 'Many Times in The Night'. This analysis proved to be extremely useful, as it opened new perspectives on a variety of reading levels, expanding on initial observations and revealing crucial references.

A particular area of focus in the analysis appeared to be decisive in relation to my structural research: the use of *political*² verse or else iambic decapentasyllable, a metric form of iambic metre comprising of fifteen syllables. According to Papazoglou, quoted by Letsios:

²The term *political* does not refer to the word *politics*, but to the origin of the type of verse: *Polis* or otherwise *Constantinoupolis*.

'... The political verse is for the Greek language not only the basic verse of popular poetry, but primarily the metre upon which modern Greek expression is regulated in it's whole. Political verse, in it's evolution and use up to present, has possibly been the deepest influence on the actual structure of language; to such a degree that we can say today that the history of this verse is at the same time the history of the phonetics and partly of the morphology of modern Greek.'

(Papazoglou in Letsios 2003: 227)

In relation to Embiricos' use of the political verse, Letsios writes:

'Embiricos draws on the most automatic verse in Greek...because he attempts to find a form of Greek automatism. Through the incorporation of political verse in his surrealist project Embiricos, introduces the aesthetic of surprise and incompatibility, typical of the surrealist prose poem, which depends on shock, paradox, and the suggestion of magic and dream. The paradox here is the contradiction between a metrically accurate form integrated into the work, conveying a seemingly incomprehensible meaning.'

(Letsios 2003: 236)

And elsewhere, on the poet's use of the political verse in the collection which includes *Many Times in The Night*:

'The concealed force of the political verse in this collection (*OKTANA*) may be the force of Eros, the force of metaphysical power and a historically conditioned force. The force of Eros is identified with the liberation of senses and is a response to erotic oppression. The force of metaphysical power lauds the power of poets to overcome death, to approach metaphysical realms and recall religious texts. Finally, the historically conditioned force conveys historical facts that may or may not be mentioned and contains a critical response to nationalistic implications.'

(Letsios 2003: 237)

Embiricos introduces subversion on a deep microstructural level by articulating his socio-political idealism through the manipulation of an established poetic code and the violation of correspondences between language and content.

More importantly, through this linguistic subversion emerges a pattern of construction for the poem's microstructure: metrically and non-metrically defined text forms a duality of material which is organised in a semantically dysfunctional manner, expressing the poet's intentions to bring subversion to the deepest possible level. The organisation of this contrasting duality of material can be considered to constitute the innermost structural element, the primary structure of the poem.

Having made this realisation, the obvious aim was to accurately define this primary structure and V. Letsios' thesis proved extremely useful, as it provided me with a metrical analysis of the poem down to the level of words and syllables. The following is an example of the analysis of the first page of the poem (Ex.1).

Example 1 (Embiricos 1980: 49)

ΠΟΛΛΕΣ ΦΟΡΕΣ ΤΗΝ ΝΎΚΤΑ

Led by the stillness of the night.

EDWARD YOUNG

"Όσοι ἀπὸ σᾶς γυρίζετε τὴν νύχτα μέσ' στοὺς δρόμους. ριμνοι ή σκεπτικοίβτην άνοιξι, κατά την έποχη του Έπιταοίου Θρήνου? η έχει χοντά στὶς ώρες τὶς χαρούμενες που όδηγοῦν στὴν θριαμβευτικὴν τὴν ἄνωσιν πού πάει νὰ γίνη Πάσχα ξτρίν άχουσθοῦν οἱ ἀναστάσιμες καμπάνες, καί, ἀκόμη περισσότερο, τὶς νύκτες τοῦ καλοκαιριοῦ στοὺς δρόμους τοὺς όνειοικούς τοῦ σκοτεινοῦ Λονδίνου, στούς άλλους τούς πλατεῖς ἢ τοὺς στενούς, ποὺ ἐχτείνονται γύρω ἀπὸ τὸν Μόσχοβα στη Μόσχα, η στὰς όδους τῆς κάτασπρης 'Αθήνας' σὲ δορυάλωτες στιγμές της θλίψεως, η σε άφρόεσσες στιγμές εὐδαιμονίας όταν παράθυρα καὶ ἐξώφυλλα χαίνουν διάπλατα άνοικτὰ γιὰ νὰ δεχθοῦν δροσιὰ καὶ μῦρα, ὅσοι ἀπὸ σᾶς νύκτωρ γυρίζετε στούς δρόμους πανευτυχεῖς πού ἐκσπερματίσατε, η δυστυχεῖς πού κάποια γυναῖκα δὲν ἔστερξε νὰ σᾶς δεχθή καὶ δὲν ἐστάθη, λίγο ἄν προσέξετε, θὰ ἀκούσετε πολλά, ὅσα στην τύρβη της ήμέρας δύσκολον είναι να ακουσθοῦν.

Είναι τὴν νύκτα ἐλεύθεροι οἱ δρόμοι. Τῶν ᾿Αθηνῶν ὁ οὐρανός ὁ πάντα σχεδὸν ἀνέφελος, ὁλοένα φαίνεται νὰ μεγαλώνη, νὰ ψηλώνη. Θαρρεῖς καὶ πληθαίνουν τ᾽ ἄστρα καὶ οἱ
μακρινοὶ ἀστερισμοὶ μοιάζουν μὲ τηλαυγῆ διαμάντια σὲ μαυροκύανο βελοῦδο καρφωμένα! Είναι ἡ σιγὴ παράξενη σὰν
μιὰ βαθειὰ σκηνή, ἢ σὰν γιγάντειον ἡχεῖον, ἀπ᾽ ὅπου ἐκπορεύεται ὁ ἡχος καὶ ὅλες τῆς νύκτας οἱ φωνὲς γίνονται πιὸ δυνατές, πιὸ καθαρὲς μέσα ἀπ᾽ αὐτὸ τὸ βάθος καὶ μοιάζουνε μὲ
ἀστραπές, ποὸ στὸ γοργὸ τὸ διάβα των φωτίζουν τόσο πολὸ
καὶ τόσο συνταρακτικάβποὸ ὅσο μικρὴ διάρκεια καὶ ἀν ἔχουν,

The underlined parts of the text are recognised types of political verse. There are three variants in which political verse manifests itself within the text: firstly, in its full fifteen syllables, secondly in a hemistich of eight syllables and thirdly in a hemistich of seven. Traditionally, the political verse appears in its full form and a caesura separates the two unequal hemistichs. It is evident in Example 1 that Embiricos uses the hemistichs in a much greater frequency than the actual full form, thus concealing his metrical references within the non-linearity of the text.

A numeric representation of the syllabic structure of the first paragraph/introduction follows:

Example 2

Introduction 1: <u>15,8,10,7,5,8,4,6,11,14,8,8,15,26,7,8,10,7,11,8,89</u>

Underlined numbers: metrically specific political verse, total syllables=99

Non-underlined numbers: free prose, total syllables=186

The above procedure of numerically representing the syllabic structure was followed throughout the whole length of the poem thus, defining to a syllabic level the microstructure of the poem (see Appendix).

The syllabic analysis of 'Many Times in The Night' provided me with substantial information in order to perceive and quantify its complex, multilayered and discontinuous structural matrix. Contextual entities (descriptions of sexual acts) and a flow of sonic descriptions form the duality of material which composes the macrostructure. Metrically and non-metrically defined verse forms the basic contrasting duality of elements which shape the primary structure or microstructure. The resultant totality of the above analysed structural matrix consists of properties that are not directly associated to the poem's content but ones that describe an abstract framework. Essentially, this matrix is an anatomy of the poem, an architectural model which uses language as its materializing fabric and frames dualities of contextual material within a highly complex organized sequence.

Viewing the structural matrix of the poem as an architectural model one is inclined to draw parallels with Xenakis's associations between architecture and music. His first major composition *Metastaseis* (1954) was based upon geometrical calculations and shapes he designed as an assistant of the French architect Le Corbusier for the *Poeme Electronique* Philips Pavilion at the Brussels World Fair in 1958. When viewed on the score, the graph of the sketches of the glissandi is visually and mathematically analogous in many ways

to the hyperbolic paraboloid shapes of the Philips Pavilion building. Effectively, aspects of the three-dimensional architectural construct are projected on to the two-dimensional surface of musical notation, upon which the time axis sequentially arranges pitch, density and all other musical parameters.

In a similar manner I sought to derive the interface between the poem's structural matrix, the architectural model and the parametric time-axis of musical notation. A primary dimension of the poem is its physical length in print, measured in pages, lines, words or syllables. Considering this dimension as a one-dimensional constant upon which linguistic and contextual layers of meaning are organized sequentially, the obvious aim was to derive an analogy with the dimension of time in order to establish a total-time duration for the musical structure. An analogy as such is possible, if one perceives the poem, not as a text which simply contains information and is possible to be read in fragments, but as a continuous flow of thought, expressed and perceived/read in time through the use of language.

Seeking to define the total time duration I found that there are three ways in which one can 'read' a poem: by listening to a recitation, by reciting it and by reading the poem 'internally'. Reciting or listening to a recitation introduces the element of vocalization, inevitably allowing theatricality to interfere in the poem's perception. 'Internal' reading seems to be the process closest to achieving an unmediated, abstract perception of the poem.

Thus, timing my own 'internal' reading of the whole poem, I defined the total time duration of the musical equivalent. Subsequently, through simple calculations I defined the duration of every structural section, down to the smallest subdivision/particle of the matrix, the syllable. Example 3 displays those calculations:

Example 3a

<u>Total time duration</u> of 'internal' reading \cong 12 min = 720 sec Total number of lines = 381 Average duration of 'internal' line reading \cong 2 sec Average number of syllables per line \cong 20 Average Syllable duration \cong 0.1 sec Duration of *political* verse \cong 1.5 sec

The approximate durations for each section are displayed bellow (not in order of occurrence):

Example 3b

Introduction ('Preludes' I + II)	56"
Sound descriptions	3':46"
Sexual incident I	· 8"
Sexual incident II	56"
Sexual incident III	36"
Sexual incident IV	42"
Sexual incident V	- 1':25"
Sexual incident VI	· 18"
Quote I	24"
Quote II	
Quote III	
Dialogue (rape)	
'Coda'	- 24"

A detailed analysis of the structure on a syllabic level, exposing the macrostructure and the manner in which the *political verse* appears in the text can be found in the appendix.

Having established a detailed matrix for a time structure which has been detached from its original content I sought to define a musical material that would constitute the construction fabric of a musical architecture. The poem's concept of metric reference and the level of complexity involving both large and small scale contextual layering called for a flexible type of material that is capable of

producing complex structural layers and animated gestures. The obvious choice was to deploy the concept of *enhanced pitch attraction* which was first used on *Condor Sylens*.

Initially, I intuitively produced a sequence of six chords (Ex.4).

Example 4



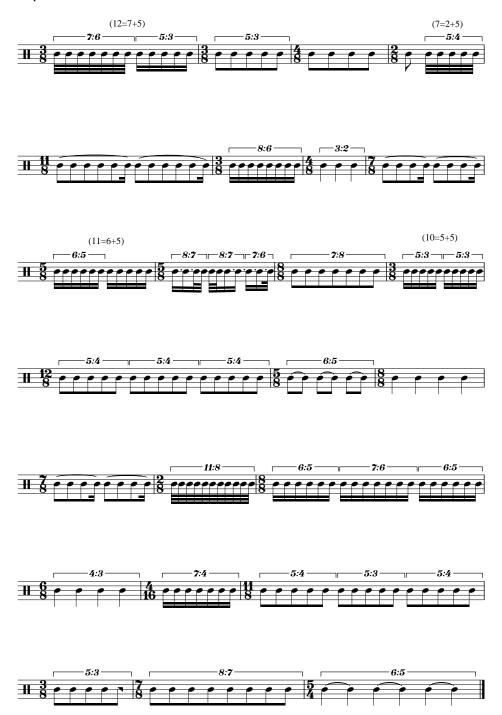
From this chord sequence I freely derived a 20-note row, which contained the element of *enhanced pitch attraction* (see Chapter 2, p.18):

Example 5



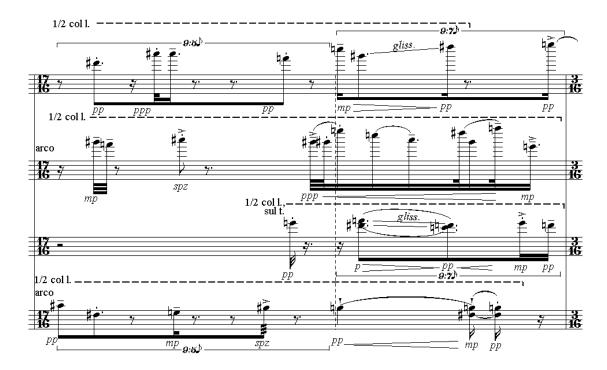
Using the system of ratios which expresses the series' *structural containments* (see Chapter 2, pp.19-23) I derived a 24 bar rhythm series (Ex.6):

Example 6



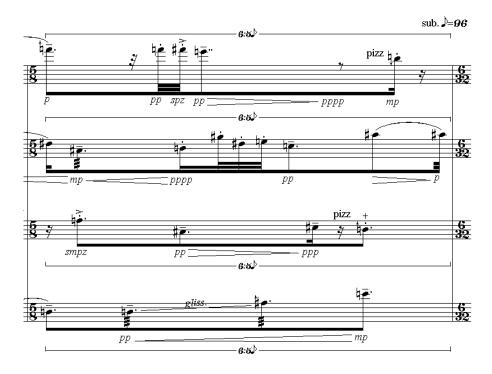
The final step in the pre-compositional process would be the association of this musical material to properties of the structural matrix. It is apparent that the two basic layers are constructed by a juxtaposition of contrasting elements. This is expressed through the poem, on a microstructural level through the duality of political verse and free prose or otherwise, metrical rigidity and metrical freedom. The latter, transferred from the domain of language to that of sound, seems to allude towards a gestural fluidity, formed by a forward moving and complex layering of intensely expressive actions. The following is an example of 'free prose' material in bar 4 (Ex. 7):

Example 7

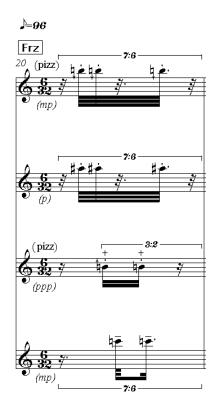


Transferring the notion of *political verse* to the domain of music, the obvious choice was to appropriate the contrasting dual nature within the text by creating a gestural opposite to the 'free prose' material. The aim was to impart a sense of a 'frozen frame' which derived from the 'hot' and fluid 'free prose' material, conveying the theatricality of a *tableau vivant* and simulating the poem's use of archaic 'freezing' which subverts the use of traditional verse. An example of the contrast of between the two types of material can be seen in bars 19 and 20 (Ex. 8a and 8b):

Example 8a - bar 19 ('free prose')



Example 8b - bar 20 ('political verse')



The framed 'Frz' on top of the 'political verse'-type bar refers to the following performance instruction: Bars with this instruction should be performed with almost minimal movement, devoid of any coloration or dynamic change. Each player retains the last articulation and dynamic from the previous bar and continues in a 'frozen gesture.

On a macrostructural level, the poem's duality of material was transferred by the use of two contrasting compositional approaches. Contextual entities (sexual incidents) where composed as short independent pieces, aesthetically relating to the whole. Each incident's structure is informed by the inevitably climactic nature of the erotic act. In contrast, every intervention of sonic descriptions is treated as part of a flow of sonic descriptions, running through the poem and is expressed compositionally as a long, through-composed gesture. Another crucial element of contrast between the two materials is expressed through the use of notation: the independent episodes are written using traditional notation's temporal and expressive accuracy whereas the flow of sonic descriptions is notated spatially, allowing the element of indeterminacy to temporally disorientate the performer and listener.

The following, is a list of a few examples which display elements of the compositional process:

Episode V (fifth sexual incident)

The syllabic structure of Episode V is as follows (see Appendix: Syllabic structure of *Many Times in The Night*):

Example 9a - (underlined numbers are *political* verse and non-underlined numbers are free prose)

77, <u>7</u>, 62, <u>8</u>, 47, <u>8</u>, <u>8</u>, 17, <u>19</u>, 45, <u>8</u>, 35, <u>8</u>, 13, <u>7</u>, 11, <u>15</u>, 9, 10, <u>8</u>, 3, <u>8</u>, 26, <u>8</u>, 41, <u>8</u>, 6, <u>8</u>, 5, <u>8</u>, 8, <u>7</u>, 14, <u>8</u>, 7, <u>8</u>, 17, <u>8</u>, 24, <u>7</u>, 12, <u>7</u>, 103, <u>8</u>, 29, <u>7</u>, 25, <u>8</u>, 26, <u>8</u>, <u>8</u>, 54, <u>8</u>, 5, <u>8</u>, <u>8</u>, 17, <u>15</u>, 23, <u>8</u>, 14, <u>7</u>, 78, <u>8</u>, <u>8</u>, 8, 125, <u>8</u>, 33, <u>8</u>, 8, <u>7</u>, <u>15</u>

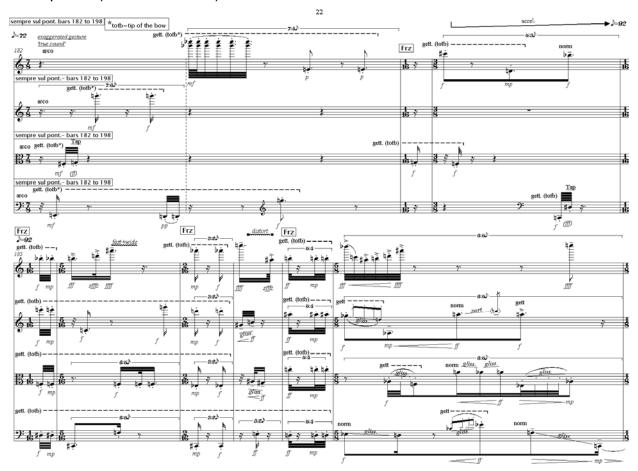
A measure structure was derived for the whole episode, with the application of a choice of time signatures and rhythm ratios, taken either directly from the original rhythm series or from other - already composed - sections (Ex. 9). Durations and metronome indications where decided by taking into consideration the fact that one syllable 'translates' to approximately 0.1 second.

Example 9 - Measure structure for Episode V (bars 182 to 226)

7/8 (7:6) + 7:4), 1/16 Frz, 3/8 (5:3), 1/16 Frz, 5/16, 2/16 Frz, 2/16, 2/16 Frz, 5/8 (6:5)), 2/16 Frz, 3/16, 2/16 Frz, 1/16, 1/16, 2/16 Frz, 3/16, 1/16 Frz, 5/16, 4/16 Frz, 1/16, 1/16 Frz, 2/16, 1/16 Frz, 1/16, 1/16 Frz, 2/16,1/16 Frz, 3/16, 2/16 Frz, 15/16 (7:4) + 7:5) + 7:6), 1/16 Frz, 4/16, 1/16 Frz, 6/16 (7:6), 3/16 Frz, 11/16 (6:5) + 5:5), 2/16 Frz, 7/16, 1/16 Frz, 1/8, 7/16 (12:7) + 12:7), 1/8 Frz, 17/16 (9:5) + 9:7), 1/16 Frz, 4/16, 1/16 Frz, 4/16, 1/16 Frz, 1/16, 1/16 Frz, 1/16, 1/16 Frz, 4/16, 1/16

The opening bars of Episode V, reflecting the above measure structure, are displayed bellow (Ex. 10):

Example 10 (bars 182 to 190)



The choice of pitch material is derived by a combination of transpositions and permutations of the original *enhanced-pitch-attraction* series and by referring to already exposed themes. The overall gestural direction was mapped-out, based on a personal intuitive interpretation of the corresponding text. The following is a general gestural and textural structure for the section (Ex. 11):

Example 11

- A sparse, pointillistic, arco (gettato + staccato), mf
- **B** gradual increase of density, *glissando*, very high and distorted harmonics, *f* to *ff*

- **C** towards a pointillistic *glissando*, violin 1 high distorted harmonics, *mf* to *fff*
- **D** violin 1 solo, fff
- **E** violin 1 solo, very slow chord progression, *pppp* to *ffff*
- F very loud, slow moving chords, rapid solo lines, fffff

As a result of real-time compositional and notional decisions, the actual materialization has minor deviations, both gesturally and structurally, from the pre-compositional plan. Most notably, the final bars had to be added and enlarged in order to achieve the intended climactic ending for the section (Ex. 12):

poor a peco nil p

sid sid p

sid sid p

sid

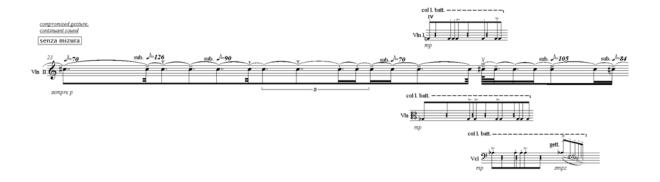
Example 12 - End of Episode V (bars 222 to 226)

Sound descriptions

The through-composed section which constitutes the transfer of the poem's sound descriptions into a musical structure is composed using a variety of notational systems. The basic intention is to achieve a sense of temporal indeterminacy and disorientation, in order to create an aesthetic contrast to the gestural accuracy and detail of the traditionally notated sections (Ex. 10). The principal element is a combination of a texture created mainly by a 'drone', vibrating microtonally around the area of C natural and C sharp and long sections which are made out of silence and gesturally 'still' sounds.

The first instance in which the C / C sharp drone appears is in bar 23 (page 4). Violin II performs the C sharp drone on a senza misura staff, while the rest of the strings create small pointillistic 'clouds' (Ex.13):

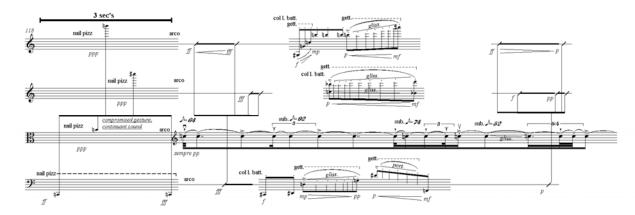
Example 13



The element of indeterminacy is introduced here by the lack of notational accuracy with regards to the vertical coordination between violin II and the rest of the ensemble. The element of temporal and gestural disorientation is achieved by a layering of a series of performance indications. More specifically, the 'drone' performer's bowing is directly informed by the drastic and rapid metronome indication changes, whilst maintaining the indicated bow direction, articulation and phrasing. The *subito* metronome changes affect the bowing speed in a way that gestures appear and sound contradicting and inconclusive. The metronome 'leaps' are an alternative notational expression of the temporal 'curving' produced by a sequence of bars which have 'irrational' rhythm ratios. In Example 5, the following sequence of bars (time signatures and rhythm ratios) was used:

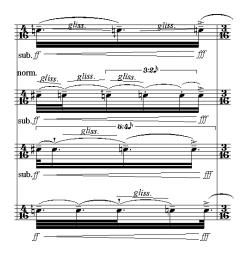
The continuation of the 'sound descriptions' section introduces the use of time - space notation and the notion of 'suspended silence' through specific performance instructions (page 14, after bar 101). This section is composed in relation to a long section in the poem that could be referred to as a 'poetics of sound'. In this section the poet indulges in a relentless 'soundspotting' of the night by creating parallels between the sexual tension depicted in the previous incidents and the tension between 'bright' and 'muffled' sounds penetrating the city night's delicate silence. Gradually, the time - space notation is combined with the 'senza misura' notation of the 'C - C sharp drone' (Ex. 15) which then leads to a traditionally notated series of bars with a very quiet 'C - C sharp drone' framed by traditionally notated pointillistic gestures (page 18).

Example 15



Finally, that last notational instance of the drone (page 18) appears, towards the end of the piece, in the form of short bursts in which all four strings perform loud and harsh microtonal glissandos within the range of C and C sharp and their microtonal inflections (Ex. 16):

Example 16



At this point it must be clarified that, as can be seen by comparing the score with the poem's structure, the section that corresponds with the final part of the poem in which the description of a rape scene is being juxtaposed with religious quotes and chants from the Greek Orthodox Easter Passion has not been composed. Effectively, the composition *Many Times in The Night* concludes at the end of the fifth episode. When reading the poem one seems to perceive its last quarter as a separate entity in which the Night, as the central setting, is substituted by Religion, as a metaphysical veil of desire, a universally inevitable imperative and a historically integral part of the Greek identity. Thus, I decided to treat the end section as a separate entity, a second future movement, which would deploy material composed in *Many Times in The Night* and combine it with a variety of new techniques derived from an interest in jazz and improvisation and more specifically John Coltrane's *Ascension* (1965), a 'spiritual', quasireligious masterpiece.

Observing the use of poetic influence in *Many Times in The Night* one is inclined to draw parallels with 'landmarks' of modern composition in which poetry was the primary source of compositional creativity. Schoenberg's *Pierrot Lunaire* (1912), based on a series of poems written in 1884 by Albert Giraud (2001),

translates into music the emotional and physical extremes of Pierrot's thoughts and actions by deploying the expressionistic colours characteristic of his newly developed atonal technique. Similarly to Embiricos' poem, Pierrot Lunaire deals with a range (spectrum) of intensities of emotion, juxtaposing desire with cruelty, ecstasy with melancholy and pleasure with pain, giving expression to a sense of confusion which is similar to the violent emergence of the subconscious in surrealist works. Nevertheless, central to the musical realisation in Schoenberg's work is the phonetic reinterpretation of Giraud's text through the use of a vocal technique, a kind of recitation sounding between spoken word and song, called sprechstimme. As a result, not only the structure but the actual pitch and rhythm content of the work are closely associated with the original text's meaning and phonetic representation. In contrast to this notion of a modernist 'cabaret song', Many Times in The Night simply borrows a surrealist poem's macrostructure and microstructure, defined purely by the sequential organization of its elements in time and applies upon it a musical material, derived independently from any form of vocalization or recitation. Characteristically, even the element of duration, the translation of text into time, is determined by reading the poem 'internally', avoiding any vocal associations.

The transformation of the language of poetry into musical structure has been approached compellingly by Pierre Boulez through his work on poems by René Char (1987: 55). Particularly, *Le marteau sans maître* (1957) presents a highly complex interpretation of three poems extracted from Char's (1930) collection of the same name. *Le marteau sans maître* is divided into nine sections, containing three, interwoven cycles in which the three poems are augmented by commentaries and pre/post-ludes. The structural interest here is that Boulez' score presents those sections in an unorthodox sequence, contrary to the order of appearance in Char's collection. According to Peter Stacey:

The unorthodox order of movements can be explained in terms of Char's 'verbal archipelago', an idea at the very base of Char's poetic technique. The images of a poem are compared to the islands of an archipelago; it is

possible to go from one island to another in any sequence and, each time, to accumulate a different set of experiences. The reader is a traveller among images; he may take any route and any inclusion is valid. The idea of archipelago can be applied to poems, as well as to images or individual words. Boulez adapts the idea for the sequence of musical pieces. It was dissatisfaction with conventional styles of development, the logic of two and two makes four, that led to this new approach:

"For the moment we only wish to suggest a musical work where this division into homogeneous movements would be abandoned in favour of a non-homogeneous distribution of developments. Let us reclaim for music the right to parentheses and italics...an idea of discontinuous time thanks to structures which are interwoven instead of remaining partitioned and watertight, in fact a sort of development where the close circuit is not the only foreseeable solution." (Boulez in Stacey)

Boulez' adaptation of the archipelago technique is a prime example of poetry as an 'irrigation' of music, not restricted to affective relationships but defining the underlying structure.

(Stacey 1987: 54)

Boulez draws upon the contextual density of Char's short poems in order to unfold a discontinuous and complex musical structure, based on a proliferation of material associated to a variety of vocalizing and instrumentation techniques:

'Since my ideas about setting a poem to music have little in common with the usual conceptions, I found that Char's condensation of the word was a great help...If a text is too extended the time becomes so expanded that music can no longer have any *raison d'être* in relation to it. In Char's poetry on the other hand, where time is extremely concentrated, music does not distend time but can be grafted on to it. Such a poem does not defy music but invites it...[In] *Le marteau sans maître* I chose the shortest poems, of just a few lines, which allowed me to have a completely different conception of the relation between poetry and music - no longer as a simple meeting

between poetry and music, but a as a graft in which music and poem can retain their independence up to a point.'

(Boulez 1976: 44)

Boulez applies a relatively integral serial technique to generate the musical material which is applied upon the 'islands' of his constructed archipelago in varied levels of freedom or 'local indiscipline'. In a sense this process is similar to that of applying the enhanced pitch attraction material of Many Times in The Night to the poem's structural matrix. But where Le marteau sans maître deals with poetic text and structure as a temporal condensation of a complex web of concepts and ideas which can be re-organized, assembled and unified within a new dimension of musical totality, Many Times in The Night treats the poem's structure as an unchangeable architecture, stripped off any semantic content which is then 'covered' with a collage of layers of independently devised musical material, driven by a subjective reading of the text.

Many Times in The Night was premiered at a concert in The Warehouse in London, by the Kreutzer Quartet on the 24 of May, 2002. The concert was funded by The Hellenic Foundation for Culture as part of the *Greece in Britain* series. The event was also partly funded by Goldsmiths College, University of London and The Popular Bank of Cyprus. The centre of focus was the celebration of the centenary of Andreas Embiricos' birthday. The poet's place in the surrealist movement, his influence on Modern Greek poetry and a brief account of how his work was transformed into music, where presented in three talks by Maria Margaronis, Vassilis Letsios and myself. Peter Sheppard-Skærved from the Kreutzer Quartet was an extremely valuable influence in discussions on extended string techniques, string quartet notation and performance issues but also crucially helped organize and formulate the event's concert programme. Apart from *Condor Sylens* for piano, there where performances of *Tetras* (1983) for string quartet, *Hunem Iduhey* (1996) for sting duo and *Mikka* <<S>> (1976)

for solo violin by Xenakis and *Settori* (2000) by Olga Neuwirth, a composer whose work is strongly influenced by Surrealism.

Chapter 4

The Film Sextet

for violin, double bass, percussion, piccolo flute, oboe and clarinet in Bb

During the time *Condor Sylens* and *Many Times in The Night* where composed, I became increasingly involved in the London free improvisation scene. Primarily as a violinist, I had the opportunity to expand my sound repertoire and observe a plethora of textural possibilities generated by the superimposition of individual performance and instrumental techniques. Being immersed in a situation of spontaneous group composition I had the opportunity to observe my individual performative reflex-output as a form of instinctively unmediated behaviour and simultaneously the unfolding of an overall sounding 'shape' emanating from an aggregate of performative behaviours.

Involvement in this type of performance practice played an important influence in deciding the course of investigation and research focus after the composition of *Many Times in The Night*. The latter required a manner of compositional thinking which contrasted almost entirely with any type of improvisation practice. Every aspect, from material to form, was derived from an extremely controlled and careful process of invention and selection. The extra - musical structure used for *Many Times in The Night* was that of Embiricos' complex, discontinuous but fluid poem which deployed the effects of automatism and linguistic subversion in order to construct a definite micro- and macro- structure.

Following that, the initial intention was to investigate the application of the above compositional principles in the sphere of an art which didn't use language as the primary construction base but was still definable on the parametric axis of time. Film, as the quintessentially modern art of manipulating time and image, became the centre of my research focus. Two important features of the film making process seemed of great interest; firstly, the editing process, which on a macrostructural level organizes scenes sequentially in time, outlining the

architecture of a perceived narrative; secondly, the process of layering visual and temporal activity which, on a microstructural level, conveys an evolving density of sensory events and microrhythms.

I found that Surrealist films such as Luis Buñuel's *Un Chien Andalu* (1927) contained compelling micro- and macro- structural ingredients which created discontinuity by violating anticipation, confusing temporal and sensory perception and subverting narrative associations by the use of climactic procrastination. In a similar vein, Jean Cocteau's *Le sang d'un Poète* (1930) states in the opening caption: "It is the first attempt of a poet to write, on the hearts of his audience with motion picture tools, instead of with the conventional pen". Cocteau bypasses narrative convention by the use of dislocated music/sound and disorientates spatial perception by the geometrical 'flexure' of set design, camera angle and editing effects.

My initial compositional intention was to analyze a film with compelling structural features such as the above, scene by scene and shot by shot, in a similar manner and depth to that of the *Many Times in The Night* structural analysis and derive an abstract time structure, which on a macrostructural level would become the structure of a piece of music. The musical material could be derived by inverting the generation process used in *Many Times in The Night*: the relations between durations and repetitions that pervade the microstructure could form a series of ratios. The series of ratios, in turn, could produce a series of rhythms, which in an inversion of the *enhanced attraction* principle could produce a number of pitch series. Thus, the moving image would be 'translated' into an integrated musical material and structure.

This compositional idea was eventually abandoned, partly due to the fact that as a concept for deriving new musical material the inversion of an already established process seemed to offer little in advancing the scope of my compositional research. Furthermore, the foremost reason for not following the initial compositional idea could be related to a personal shift of interest towards

material and structures which had the inherent quality of being defined though a less rigid and crystallised process. Free improvisation presented a wealth of such processes and, being involved in them, I felt the need to explore and exploit their possibilities within the context of my compositional research.

What remained within the scope of research was the concept of using film as an extra-musical art form through which to derive ideas on the temporal and sequential manipulation of structure and perception. While film music has been an integral element of cinematic language, the common methods for composing for such a medium have been inextricably linked to an evolving post-modern aesthetic, a symbolic alphabet in which conventions of representation are industriously followed.

During the making of Ascenseur pour l'echafaux (1958), Louis Malle was in search of new ways in which to apply music onto his already shot but unedited film. Miles Davis's soundtrack (1990) is a testimony to a process that seemed simple but essentially bypassed any sense of narrative linearity: During an allday recording session Miles Davis and his first European tour jazz band improvised to loops of film rushes which where presented to them as individual moving scores without sequential links to the film's narrative structure. While watching the film, it is possible to recognize parts of the recorded improvisations appearing on the final edited structure, detached from the scene / film-rush they where originally conceived upon. Despite Davis's improvisations being stylistically limited within the realm of bebop jazz and the aesthetic specificity of the film noir atmosphere, Louis Malle's practise of exposing the improvising musician to an intense 'constellation' of moving images which in turn generate a 'constellation' of musical material to be fractured and redistributed throughout the cinematic structure, pointed me towards similar methods of thinking in my compositional research.

The idea of creating a temporally and sequentially undefined 'constellation' of musical entities that generate an indeterminate structure can be found in works by Cage and Boulez. The latter's development of compositional processes based on poetry and particularly Mallarmé's *Un coup de dés* (1987) posed a great influence in my research. Boulez, in his search for a concept which would introduce new levels of structural freedom, found in Mallarmé's final published poem a structural language which could also be applied in musical composition. Interestingly, Mallarmé was obsessed throughout his life with the idea of reclaiming music's structural freedom and semantic abstraction. Through the use of layout and spatial arrangement, *Un coup de dés* presented the reader with a number of interpreting possibilities by the use of complex sentence layering and interchangeable meanings. Stacey describes the poet's reading instructions:

...In Un Coup de dés, Mallarmé attempted to create a musical score without using any of the symbols of conventional music. It is a graphic score in which the placing the words on the paper and the size of the lettering indicate to the reader the dynamic level and pitch at which the words should be spoken...The white spaces that separate the words in Un coup de dés represent silence and, as in Webern's music, this silence is to be enjoyed as much as the music. The double lines, which occur naturally where the two pages of a book meet, represent the musical staff. Each double page is a unit or bar. The words are arranged so that one reads down and across the double page. Tempo is determined by the amount of words on a page. If there is only one word on a page, the reader is invited to dwell on that word: if there are several words then he will read through them more quickly. Dynamics are determined by the weight of the typeface and pitch is governed by the placing of the word on the page - intonation will rise towards the centre of the page and fall towards the end. Motifs are unified by the use of the same typeface...

(Stacey 1987: 78)

Effectively, by imposing a detailed set of rules as such, Mallarmé renders each reading instance of the poem unique. Each reader, consciously interpreting the poem's layout, will perceive an individualized layering and sequence of sentences, essentially construing an indeterminate structure composed by a

'constellation' of messages and meanings. Boulez's piano *Sonata no.3* (1968) reflects Mallarmé's idea of organising a text in the form of a constellation. The work comprises of five movements, revolving around a central reversible movement called *Constellation / Constellation miroir* and is fixed within an otherwise mobile form. Boulez explains this choice:

...The itinerary is left to the interpreter's initiative, he must direct himself through a tight network of routes. This form, which is both fixed and mobile, is situated, because of this ambiguity, in the centre of the work for which it serves as a pivot, as a centre of gravity.

(Boulez in Stacey 1987: 82)

The implications of Mallarmé's poem on modern compositional thinking are expressed by Peter F. Stacey:

Perhaps the most prophetic aspect of *Un Coup de dés* was its preoccupation with chance. Not only is chance one of the central themes of the poem, but the text achieves a polyvalence of reading possibilities. In reading *Coup de dés*, the eye can follow several routes among the words.

(Stacey 1987: 78)

The poem's central theme is resonated in John Cage's introduction of chance in composition as a generative, interpretive and listening process through which the composer, performer and listener project their individual structural perception upon a 'constellation' of random events. On a different level, the poem's 'polyvalence of reading possibilities' (Stacey 1987) is a precursor of the notational complexity found in Brian Ferneyhough's scores in which the element of indeterminacy is articulated as a complex interpretive path through the manifold layers of information.

Within the sphere of those concepts I sought to devise a compositional idea which could be developed by exploiting my interests in both the improvisational

and the cinematic language. So far, my compositional concerns followed a developmental research route towards increasingly higher levels of specificity. After composing *Many Times in The Night*, it seemed that a re-examination of *Threshold*'s general structural concept was of increased relevance to the extended, by now, scope of investigation. Combining elements of mobile form with an intuitively predetermined overall shape, *Threshold* contained structural ingredients and devices which had to be reassessed and expanded onto a broader performative approach and a larger ensemble. I was given the opportunity to compose for London's Ensemble Exposé and my choice was to multiply *Threshold*'s duet size by three, in order to work on the idea of a sextet, based on a notion of three strands of interaction between duets.

In Threshold the two defining characteristics are the contrasting duality of material and the process by which the points of interaction between the two instruments are determined by an aleatoric operation, graphically delimited by the material itself. The notion of duality was revisited in *Many Times in The Night* in the form of a musical reflection of the contextual contrast between sections of the poem (sexual incidents versus sound descriptions). Its application on the process of producing material for the sextet seemed like an obvious and natural progression. The process of defining the interaction points in *Threshold* was one that needed reconsideration. I felt that the sextet's structure had to be partly predetermined and partly generated in real time by a process that reflected not a graphical operation, devoid of context, but an independent flow of information that presented and directed the performers with a correlation of events and actions, in a way similar to that of the Miles Davis ensemble improvising to Luis Malle's film rushes. My intention though, was for the sextet performers not to improvise freely but to improvise on their choice of pre-composed material and manner of action by following the unfolding of a film structure.

There follows a description, comment and analysis of the instructions and material which form the *Film Sextet*'s structural network and offer a vague outline of the way it may possibly sound and unfold in time.

General instructions for The Film Sextet

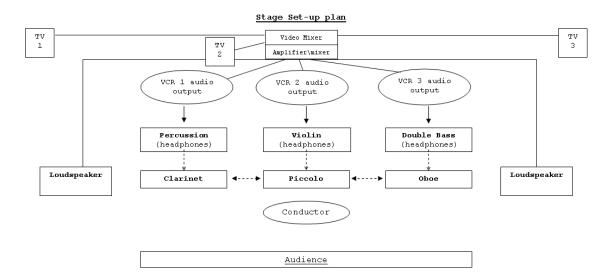
Instrumentation: Double bass, violin, clarinet *b*-flat, oboe, piccolo flute, percussion (timpani, vibraphone, kick drum, snare, large tuning fork, crash cymbal).

As can be seen in the stage set-up plan (Ex.1), there are two rows of instruments which create three duets with similar characteristics to *Threshold* (string and wind instrument). The only exception is that of percussion, which was chosen with the intention of textural and dynamic variety.

Equipment: Three VCR players with separate audio output and three sets of headphones. Ten predefined VCR tapes of commercially released films. A mixing desk, an amplifier, a three channel video switch and three small television sets.

The VCR players form a third row behind the performers. The TV monitors are placed on three stands, visible from the audience.

Example 1



General description:

Headphone trio - The three players with headphones listen to the sound coming out of their individual VCR, which is actually the sound band of one of the ten films, randomly inserted in the VCR. The nature of this sound (dialogue, silence, music, intensity, etc) is an indication of when, which and how to perform their given mobile musical material, according to a set of instructions. For example, silence or dialogue coming from the headphones can be an indication for the performer to start or stop performing; variation of sonic intensity coming from the headphones can affect the dynamic result of the performed material. These players follow the instructions and sonic indications from the headphones, essentially behaving as soloists, unaffected by the actions of the others in the ensemble.

Wind trio - The three players NOT wearing headphones follow the same actions as the above but their input is not the headphones but the sound of the player behind them, as can be seen Example 1.

The **Conductor** uses instructions and a timer to indicate actions that overrule every other action in the performance.

Effectively, the structure of the piece is defined by a combination of the three 'randomly' chosen sound bands, the performer's intuitive response and the time-specific interruption of the conductor. The six players are soloists who interact as part of an information chain, which moves vertically from the VCRs to the front trio (Ex. 1). The conductor has the power to interrupt this information chain by instructing a horizontal synchronization for the wind trio (Ex. 1).

Reflecting the initial compositional intentions, the VCR's sound band and the player's reaction and choice provide the mobile aspect of the form, whereas the

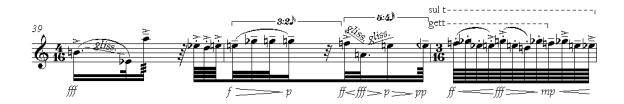
conductor's indications project a predetermined sequence of events upon this mobility.

<u>Instructions for the **headphone trio** – percussion, double bass, violin</u>

The 'headphone trio' performs mobile material of the following 3 types:

1. VCR I, which is one very long, linear gesture. Example 2 displays an extract from the corresponding violin part (bars 39 to 41):

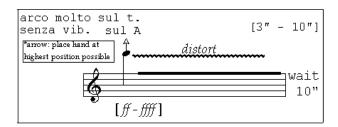
Example 2



2. VCR II, of which

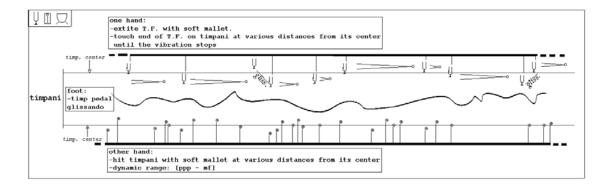
a) <u>VCR II a</u> consists of isolated, long **static** gestures, confined within specific temporal and dynamic ranges (Example 3, from the double bass part).

Example 3



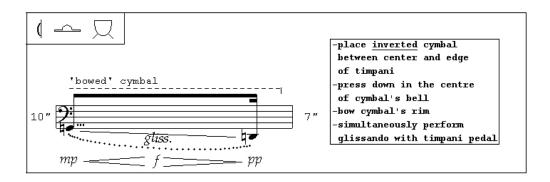
b) <u>VCR II b</u> consists of long, **gradually changing** textures, confined only within specific dynamic ranges (Example 4, from the percussion part).

Example 4



c) <u>VCR II c</u> consists of very short and **dynamic** gestures, confined within specific temporal ranges but with absolute indications for articulations and dynamic intensity (Example 5, from the percussion part).

Example 5



3. AUDIO SCORE, which consists of four audio tracks on a CD-R for each performer. All four tracks have been created purely by electronic means. They are to be imitated as closely as possible using all available instrumental techniques and then memorized to be performed in any order during the performance.

Compositionally, VCR I is a gestural collage of pitch and rhythm material from *Many Times in The Night* and *Threshold*. Its structure has the static quality of *Threshold* but the intensity escalates towards the end. The VCR II constellation of notationally varied material emanates from an intuitive selection of improvised

sounds and gestures, imagined and recollected from my own improvisational experience.

Each performer from the **headphone trio** wears headphones during the whole piece. As seen on the stage set-up plan, the percussionist, the double bassist and the violinist listen to the audio outputs correspondingly from VCR 1, VCR 2 and VCR 3. Each VCR plays back a commercially released film, which has been forwarded to a random time on the cue indicator.

The sound coming from each VCR can be subjectively classified in three categories:

- a. Music (including Sound design)
- b. Dialogue
- **c. Background sound** (including silence and sound on set)

The **headphone trio** performers have to instantly classify what they hear on their headphones and choose material to play according to the following rules:

- 1. <u>Dialogue -----> Perform VCR II material</u>. Choose one of the boxes in the three given pages (VCR II a/b/c). Follow the exact instructions concerning the given dynamic and temporal ranges. Never play two boxes from the same page consecutively. All boxes in VCR II a and VCR c can be played up to two times.
- 2. <u>Music ----> Perform VCR I material</u>. Play through until being interrupted. When returning to it, play from the point of interruption. If the end of material is reached, start again from the top of the second page.
- 3. Background sound ----> Remain STILL and SILENT.

During the performers' classification of the headphone sound, an instant decision will have to be made, about which category is in the foreground of the film's activity. If all three categories seem to be equally as prominent, then their choice will have to be purely impulsive. Rules 2 and 3 are interchangeable (when instructed by the conductor).

The headphone sound affects the performer's choice of dynamics and expression, but the notated dynamics and articulation should always override this choice.

The **Conductor's** role is to instruct structural changes according to a given time plan. The conductor uses 4 cards to indicate these changes, which override every other action taking place at the time.

- The Blue card indicates an interchange of rules 2 and 3, which means:
- 2. Music -----> Remain STILL and SILENT and

3. Background sound ----> Perform VCR I material

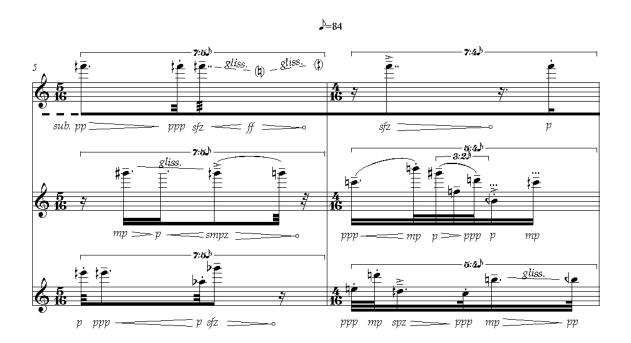
Another blue card reverts rules 2 and 3 back to their original correspondences.

- The **White** and the **Black** cards instruct the beginning and end for each of the four 'trio material' (see instructions for wind trio) sections in the piece. The performers have to choose one of their four memorized **Audio scores** for each section. The choices of duration, intensity and speed are left to the performers, who can also be influenced by the headphone sound.
- The **White** and **Red** cards, **simultaneously**, indicate the end section of whole the piece. The performer chooses one of the four **Audio scores** and performs it as quietly as possible, on the threshold of audibility.
 - The Black and Blue cards, simultaneously, indicate the end of the piece.

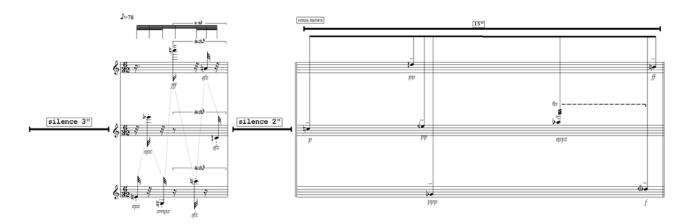
<u>Instructions for the wind trio – clarinet Bb, piccolo, oboe</u>

The wind trio performs material of two types, similar to those of the headphone trio: **VCR II** and **AUDIO SCORE**. Additionally, another type of specifically composed material called **trio material** consists of four <u>synchronized</u> episodes/sections which where composed using the contrast between traditional and time - space notation, similarly to *Many Times in The Night*. Examples 6 and 7 display this contrast:

Example 6 - (wind) trio material I, bars 5 and 6



Example 7 - (wind) trio material II, bottom of page 1



Each **wind trio** performer listens to their corresponding **headphone trio** performer, except from the instances at which they are instructed to perform the **trio material**.

The input from each corresponding **headphone trio** performer can either be **Sound** or **Silence**. The **wind trio** performers have to choose what material to play according to the following rules:

1. <u>Sound -----> Perform VCR II material</u> in a similar manner to that of the headphone trio.

2. Silence ---->

- a. Remain STILL and SILENT or
- b. <u>Perform one Audio score track</u>. Play through until being interrupted. When returning to it, play from the point of interruption. Each audio track can be performed only once (apart from the end section).

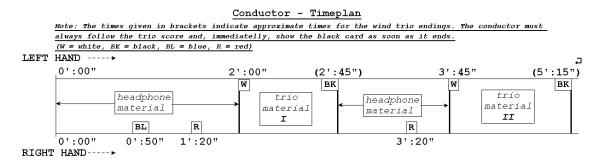
Rules 1 and 2 are interchangeable. The **headphone** performers' sound affects the **wind** performer's choice of dynamics and expression, within the specified dynamic and temporal ranges.

The **Conductor's** specific input on gestural and structural changes and rules for the **wind trio** can be found in the wind trio instructions' section inside the score portfolio.

Instructions for the **Conductor** and the **audiovisual technician**:

The **Conductor** uses coloured sheets of paper to give instructions, according to an event timeline which follows the 'absolute' time of a stopwatch (Ex. 9).

Example 9 - Extract from the Conductor's Timeplan



There are two types of instructions:

- The <u>White and Black</u> instruction, which applies to the whole sextet. <u>White</u> indicates the start of a 'trio material' section and <u>Black</u> the end of it.
- The <u>Blue</u> and the <u>Red</u> instruction, each of which apply exclusively to different groups within the sextet:

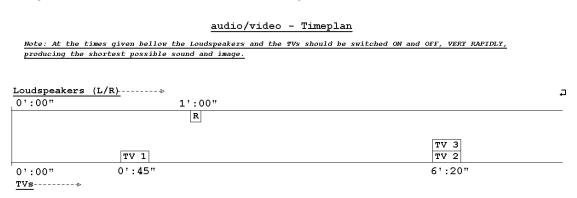
<u>Blue</u> instructs the **Headphone Trio** to reverse their listening mode i.e. the way the sound coming from their headphones determines their actions. For example, if the percussionist has started on the mode 'dialogue - play / music - silence', a blue sheet will mean they have to switch to the mode 'dialogue - silence / music - play'.

<u>Red</u> instructs the **Wind Trio** to reverse their listening mode i.e. the way the sound coming from the performer behind them determines their actions. For example, if the clarinettist has started on the mode 'percussion sound – play /

percussion silence - silence', a red sheet will mean they have to switch to the mode 'percussion silence -silence / music - perform'.

The **audiovisual technician** uses the audio and video mixers to switch on/off the signal going to the speakers and the television sets, according to an event timeline which follows the 'absolute time' of a stopwatch (Ex. 10). The audio output is an equal mix of all three outputs from the videos. The three visual signals are not mixed but sent to their corresponding TV sets (see stage set-up plan).

Example 10 - Extract from the audiovisual timeplan



Full instructions and timeplans for both the conductor and the audiovisual technician can be found in the relevant section inside the score portfolio.

During the performance, the audiovisual technician produces very fast 'flashes' of sound or images, distributed sparsely over the whole duration (Ex. 10). The 'flashes' are too short and infrequent to be identified and analysed, but can be perceived as a violent sensory disruption, an infiltration of the performance by the actual process which partially generates its structure: the simultaneous unfolding of the three unseen films.

The unfolding of those film structures is relayed through their sound bands onto the 'headphone trio' performers' perceptual sphere, who subsequently forward this transmuted chain of information to their 'wind trio' counterparts. As a result, the element of indeterminacy in *The Film Sextet* is not the product of

chance operations, but a complex and unpredictable interfusion of real-time choice-making and extra-musical structures. The element of duality appears in the subjective interpreting process through the rules of choice-making but is also manifest in the composed instrumental parts; the gestural and notational contrast between the headphone trio's VCR I and VCR II type of material and between the wind trio's VCR II and AUDIO type of material seeks to avoid the possibility of a bland and random structural homogeneity and serves towards disorientating the performers and listeners.

The production of the AUDIO type of material as a compositional technique was an idea borrowed from a piece, composed in the same period with *The Film Sextet*, called *egg* for solo oboe and two CD players and will be analytically presented in the following chapter.

The Film Sextet has not yet received a performance. It is expected that some parameters, durations and rules will be subject to minor changes, based on rehearsal feedback.

Chapter 5

egg

for solo oboe and two CD players

During the period *The Film Sextet* was in its first compositional planning stages, I was concurrently investigating the possibilities of transferring *Threshold*'s idea of aleatorically generated interruptions onto a work for a solo performer. While in *Threshold* the interruptions where literally performed by the clarinetist, who followed a predetermined plan, a solo performer would have to be interrupted by a non-human device that generates signals at random points in time. The solution to this technical issue was found in a feature common to all devices that use digital technology to playback audio media (CD players, software media players, etc): random mode. The soloist could be interrupted by signals coming from a CD player in random mode and this could prompt him/her to switch to a different type of material.

The duality of material for the viola performer in *Threshold* was produced by two separate notated parts, which where contrasting only on a gestural level. In my search for a different type of contrast in the materials performed by the soloist, I had the idea of amplifying the notational disorientation found in *Many Times in The Night*: the string players where made to switch between traditional and space/time notation, which consequently disorganized their perception of musical time. Combining the initial idea of using a CD player as a random device with the need for an alternative type of 'score', I realized that the random interruption signals could be actual pre-composed recordings of sounds that had to be imitated in real time. As part of the performer's process of reading the work, these sound recordings would have to be learnt, as accurately as possible, in the same manner the folk music's aural tradition is learnt, in the absence of notation: by listening, imitating and memorizing.

I had the opportunity to compose for oboist Christopher Redgate, who has a unique ability to produce, sustain and diversely inflect notes at a very high range. This gave me the idea of producing a notated score which comprises of varied permutations of the highest possible G sharp on the oboe. The audio scores where created by improvising, using a sine tone generator and filtering and gating devices.

Egg takes its name from the surrealist novel Story of the Eye (written in 1928) by writer Georges Bataille (1987), in which the egg is used as a symbol and a metaphor for a variety of transgressive notions and actions.

There follows a short presentation and analysis of the performance instructions:

The notated score is in two parts; the 'G sharp section', which consists of a very long and evolving gesture and its duration is about 2':15"; the 'end section' in which a short 20" gesture is followed by a very long, B natural note.

The 'sounding' score results from the playback of two audio CD-Rs:

- CD 1, which contains three types of tracks
- a. Seven short electronically produced pitched gestures. At the start of those tracks there is a single short reference tone and at the end, two very short reference tones.
- b. Three 'silent' tracks. At the start of those tracks there is a single short noise sound and at the end, two very short noise sounds.
 - c. Nine absolutely silent tracks of durations ranging from 5" to 20".

The CD player containing CD 1 is set on Random Mode.

 CD 2, which contains 2 tracks: The first is silent and has the exact duration of CD 1. The second one contains a sine-tone version of the 'end section' from the notated score. The CD player containing CD 2 is set on Normal Mode.

(For a performance technical set-up and diagram, please see the egg score in the PhD portfolio.)

At the start of the performance the oboist places the headphones on his/her ears. The two CD players are started simultaneously (CD 1 in random mode). The oboist starts to read and perform the 'G sharp section' from the notated score. The notated score is interrupted randomly 10 times by the sound from the headphones:

- 1. Seven times by a single short reference tone indicating the start of a pitched gesture. This gesture has to be imitated as precisely as possible. Two very short reference tones indicate an immediate return to the notated score, exactly at the point it was interrupted.
- 2. Three times by a single short noise sound, at which point the oboist pauses completely and remains still. Two very short noise sounds indicate an immediate return to the notated score, exactly at the point it was interrupted.

When CD 1 ends (duration 3':34"), CD 2 will be changing from Track 1 (which is also 3':34" and silent) to Track 2, which starts with the signal of a reference tone, a noise, two reference tones and a last noise. This prompts the oboist to start performing the 'end section' from the notated score.

Both CDs' audio scores have stereo separation; the left channel is routed, through the mixer, to the performer's headphones and the right channel is routed to the loudspeaker. This way, small snippets of the audio scores and interruption signals (left channel) can be heard on the loudspeaker (through the right channel).

Chapter 6

The completion of egg for solo oboe and two CD players coincided with my decision to divert the compositional focus from an investigation of material and form to a more free-flowing and intuitive approach. The experience of generating integrated micro- and macro- structures which include elements of chance, automatism and reflexive decision-making, had the potential to latently inform the making of through-composed formations and freely improvised concepts. The two compositions reflecting this shift from conceptually justified formalism to direct and instinctive music making are *The Solar Anus* and *Rhetorics*.

The Solar Anus

for solo violin and large ensemble

Inspired by the homonymous short text by Georges Bataille (1999), *The Solar Anus* is a work on a relatively larger scale than my previous works. The intention was to expand the gestural and textural features of *Many Times in The Night* to the scope of a larger string ensemble, augmented by two flutes and percussion. In a manner comparable to Embiricos' poem, Bataille's *The Solar Anus*, written around 1927, deploys the element of duality by presenting contrasted metaphors and extreme parallels within a symbolic context, characteristic of surrealist works of the time. Bataille, a French surrealist who focused on the visceral, the erotic and the relation of society to the primeval, uses the Night as the setting for an universal unearthing of desire and violence, ranging from physical phenomena to the human sexuality. This is clearly manifested in the following final lines of his text:

The erotic revolutionary and volcanic deflagrations antagonize the heavens.

As in the case of violent love, they take place beyond the constraints of fecundity.

In opposition to celestial fertility there are terrestrial disasters, the image of terrestrial love without condition, erection without escape and without rule, scandal, and terror.

Love then screams in my own throat; I am the Jesuve, the filthy parody of the torrid and blinding sun.

I want to have my throat slashed while violating the girl to whom I will have been able to say: you are the night.

The Sun exclusively loves the Night and directs its luminous violence, its ignoble shaft, toward the earth, but finds itself incapable of reaching the gaze or the night, even though the nocturnal terrestrial expanses head continuously toward the indecency of the solar ray.

The solar annulus is the intact anus of her body at eighteen years to which nothing sufficiently blinding can be compared except the sun, even though the anus is night.

(Bataille 1999: 8,9)

The text's extreme and contrasting images are reflected on various levels in the composition. On the level of instrumentation, the balance of texture is polarized through the use of twelve violins and three double basses, effectively foregrounding the extremes of register, while the middle register is considerably weaker, with three violas and two cellos. A juxtaposition of polarized material is expressed texturally and gesturally, through the exchange of sections that have a still, pointillistic and independently layered quality (page 14, in the score) with sections in which a unified approach to towards timbre and rhythm creates a homogenous sound and a sense of movement (page 15).

Structurally, *The Solar Anus* can be divided in four sections.

In the first section (bars 1 to 29) the solo violin part comprises of a fractured melodic line, written almost exclusively in harmonics. The string section mainly consists of clouds of chords and the flute and percussion parts complement each other in the creation of a textural layer. The general absence of a salient rhythm

and the choice of very quiet dynamic indications potentially produce a sense of combined stillness and anticipation.

The second section (bars 31 to 60) is characterized by a constant exchange of intense gestures between the solo violin and groups of unison rhythms, layered in the string section. The percussion accentuates the intensity of this exchange with the use of loud snare hits, while the flutes create a 'masking' effect by playing a high pitched drone, reflecting some of the solo violin material. Elements of the third section appear in bars 49 to 51.

The third section (bars 61 to 73) reflects elements of the solo violin part in the first section, transferring the use of harmonics on the three double basses and bowed vibraphone. The sense of stillness is interrupted by the solo violin and the flutes on bar 72.

The final fourth section (bars 74 to 91) starts quietly, with the strings (minus the double basses) playing a very slow and fine *dal niente* glissando chord, while the rest of the instruments reflect material from previous sections. From bars 80 to 86 the whole string section creates a unified textural body, shifting abruptly from unison rhythms and glissandos (bars 80, 81), to a partially individualized layer of gestures (bars 83 to 85) and finally to a 'pure' texture (bar 86) which suddenly stops, to reveal the dynamically opposing last bars of a 'purely' textural duo between the violin and the percussion (paper sheets).

Although *The Solar Anus* was largely through-composed, the initial choice of pitch material for the solo violin and the string section was crucial to the intuitive development of melodic and harmonic variants that appear throughout the work. A cell of seven notes was used for the opening violin part:

Example 1



Finally, the polyphonic arrangement of the string section was based on two complementary hexachords:

Example 2



Rhetorics

Free improvisation concept and recording project for violin and cello

The element of chance as a generative process which determines aspects of a composition and its performance has played an increasingly 'interfering' role during the evolution of my compositional strategies. The infiltration of aleatoric and 'automatic' determination developed from the level of production of a structural outline, to that of microstructural independence. The limitations to this random 'mobility' evolved from that of a score's physical representation (*Threshold*) to the complexity of a conducted time-plan combined with a film score (*The Film Sextet*).

Rhetorics, the final submission to the portfolio, is based on a concept for a short improvised duo. Despite it seemingly existing in the margins of the conceptual framework exposed in this commentary, it is directly linked to the notions of chance, performance and improvisation discussed previously in Threshold, The Film Sextet and egg. The brief is simple but presents the performers with limitations which affect the course of improvised events:

Rhetorics for two improvisers

Improviser 1 produces a sound. After three seconds, Improviser 2 produces a sound which is the opposite of the one produced by Improviser 1. Similarly after two-three seconds Improviser 1 produces the opposite of the sound produced by Improviser 2. The process of opposing responses continues, while the silence between the reactions gradually diminishes to nothing, finally producing a continuous sound of opposites. <u>Duration: 1minute</u>.

Note: The improvisers subjectively categorize a sound and its opposite by reflexively qualifying it, based on every possible attribute e.g. frequency range, length, loudness, timbre, shape, etc.

In *Rhetorics* I sought to expand my investigation on the notion of a 'controlled' aleatoric process by minimizing the number of limitations imposed. In that sense, the shift of focus from composed material to that of actions / sounds derived from free improvisation had two objectives:

Firstly, to 'relieve' the performer (through the absence of notated material) from a range of mannered reactions and interpretational conventions linked to notational and performative history. Secondly, as a consequence of this 'relief', to turn the focus towards a personalized 'inner' sound field of a performative and instrumental language. This sound field could potentially become a virtual framework / canvas upon which limitations can be set. Consequently, the improvisers as 'containers' of sonic and kinetic information could be assumed to constitute themselves what is traditionally considered as 'material'.

The use of the term 'free improvisation' refers to the requirement that the performers have experience in improvising 'freely' within the general field of sound generation and manipulation and not within a style, technique or genre. While engaged in free interaction, free improvisers can be considered to possess

an extensive 'pool' of sounds from which they draw instinctively, forming gestures in a manner analogous to the way phrases are formed in verbal interaction. As in a conversation, a duo of improvisers tend to generate a totality of sound, derived by complementary mannerisms and gestures which mutually 'blend' in order to achieve formal and textural unity, fluidity and transparency similar to that of cohesive verbal interaction.

Rhetorics deploys the notion of the subjective 'opposite' as a limitation which compels the improviser to re-evaluate the categorization of their 'pool' of sounds. Consequently, this 'opposition' of gestures has the potential to disrupt the mannerisms which produce a linear course of events, by forcing the unfolding of texture and form, towards the unpredictability of a performative dialectics of negation.

Rhetorics was initially conceived as a short performance duo which could be applied as a concept on a variety of instrumentations. During a period of rehearsing and experimenting with the concept's variables and limitations I had the opportunity to experience and analyze the results of performing Rhetorics myself (on violin) in a duo with violinist / free improviser Roger Redgate. This duo, being 'equal' in the sense that the two instruments had equal ranges and virtually equal sonic potential, brought to the foreground the performers' instantaneous perception of sound as a subjectively measurable and abstractly classifiable event. It also highlighted the relativity of the performers' perception of the 'negative'.

In subsequent *Rhetorics* sessions with 'unequal' instruments (cello, clarinet in E flat, amplified objects) I had the opportunity to observe the manner in which the concept of 'negative' response was translated into a sonic event. The result appeared to combine the individuality of the performers' perception with that of the 'negative' translation of a sound from one sonic medium (instrument) to another.

Assuming a parallel between sonic events and words (in syntactical terms), *Rhetorics* as a linguistic improvisation would amount to being a game of antonyms: the 'equal' version would be played in the same language whereas the 'unequal' would be played in different dialects or even languages, reflecting the difference between the instruments' ability to project sound events and their 'opposites'.

The linguistic quality of *Rhetorics*, a sonic dialog in which the rules of conversation lead to a 'stream-of-consciousness' sound structure, reflects previous approaches to language and its structural, syntactical and grammatical correspondences with musical material (*Many Times In The Night, Condor Sylens*).

The notion of the 'negative' sonic event can be seen as an evolution or an abstract representation of the notion of duality which has largely informed my compositional research and has been investigated and discussed throughout the commentary.

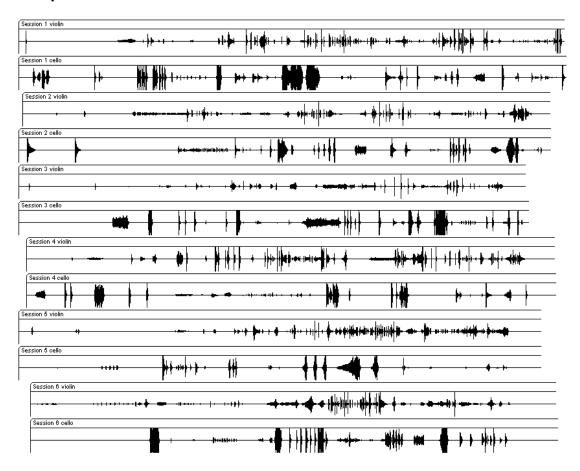
Through *Rhetorics* I saw a final opportunity, within this course of research, to expand on the idea of multiple strands of interaction, explored initially in *Threshold* and later in *The Film Sextet* on a more complex level. In an attempt to formulate a performance setup I experimented with the idea of a 'chain' of duos: A serial positioning of a number of improvisers on stage, who are aurally isolated but can only hear sound coming from the performer to their right. This way, a unidirectional chain of information could take place on stage, in which sound would be relayed through a rapid succession of *Rhetorics* duos from right to left. An alternative idea was that of parallel positioning, similarly to the stage setup in *The Film Sextet*, thus achieving multiple and simultaneous instances of interpretations of the sonic events and their 'negatives'. Despite the potentiality of those performance setups, in practise they appeared too difficult to realize.

Rhetorics was subsequently developed as a multi-track recording project in which aspects of the real-time performance setups where emulated in 'non-real'-time.

During a hard-disk recording session, six takes of *Rhetorics* duos were created, with Johannes von Weizsäcker on the cello and myself on violin. The two microphones were placed in separate recording spaces and the interaction took place through headphones, ensuring the created sound files had no sound 'leaking' from the other instrument. The resulting duos were panned 'hard left' for the violin and 'hard right' for the cello.

Rhetorics parallel is an audio track created by the synchronous playback of all six sessions, emulating the idea of six 'unequal' independent duos interacting in parallel, similarly to the VCR sections in *The Film Sextet* (Chapter 4), in which three independent processes happened simultaneously. Example 3 displays a screenshot of the six sessions layered in parallel:

Example 3

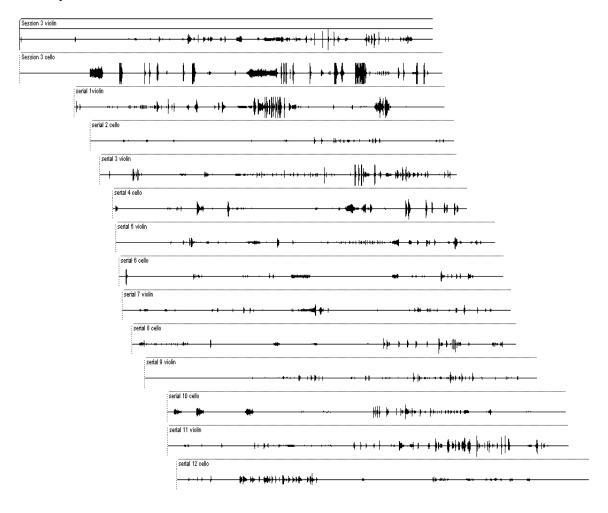


After auditioning separately all six sessions, *Session 3* was chosen as the most successful in representing the concept of *Rhetorics*.

Rhetorics serial is the audio track created by a process of layering 'chinese whispers' of the Rhetorics concept: Session 3 was used as the starting duo. Then, a violin track was created by interacting with the recorded cello part from Session 3. A cello track was then created by interacting with the last recorded violin track. This chain of interactions using the Rhetorics brief took place six times for each instrument. The result emulates an 'unequal' improvisation in which seven violinists and seven cellists are alternately placed in a row and interact serially by unilaterally relaying sound information, from one end to the other. Rhetorics serial 10-11 and Rhetorics serial 11-12 are respectively the

second last and last isolated duos from the session. Example 4 displays a screenshot of the recording session:

Example 4



Rhetorics serial Violin and Rhetorics serial Cello are tracks created by respectively isolating the violin and the cello sessions in the serial recording process.

Although simple on a technical level, the whole recording process became a gradually intensifying experience for Johannes and my self, as performers. By the time the process had reached the *Rhetorics Serial* session we felt we arrived at a point of concentration in which 'negative' response interaction was almost

automatic and the *Rhetorics* concept seemed to have infiltrated our normal improvisatory instincts.

Based on the experience of *Rhetorics* as a recording project, there is a future plan to implement the multi-track process in a real-time performing duo context. With the use of computer software, a simple algorithm could distribute 'live' recorded *Rhetorics* duos on spatially arranged loudspeakers at specifically arranged time-intervals, providing a complex structure of heterochronous associations and multiple instances.

However, due to a personal tendency to minimize technological implications, an alternative 'live' situation of a large 'chain' of duos will still be pursued.

Conclusion

The objective in this compositional research has been to arrive at a state in which a compositional language is, to some extent, achieved through a process of challenging personal perceptions and investigating the application of extramusical art forms. In this undertaking, it was assumed that preconceptions and arbitrary aesthetic choices would be set aside, while the processes that constitute pre-compositional and compositional thinking would be scrutinized on all possible analytical levels. Despite the above assumption, a PhD in Composition largely constitutes of writing music, a compulsive activity which inevitably takes place under the influence of impulsive thinking. Consequently, the results of this research can be considered to be an amalgam of investigative processes, infiltrated by the inscrutable and variable factor of personal intuition.

In *Threshold* (Chapter 1), the primary concern was that of structure. Through a general investigation on definitions and constitutive elements of structures found in nature, science and music it was perceived that the idea of duality, the construction of a form which comprises of two discreet and contrasting parts, can be considered as a minimum formal element which conveys integral transparency and perceptual immediacy. The psychoanalytical notion of the 'Freudian slip' was the extra-musical concept that, combined with the idea of duality, provided *Threshold* with a structural process of interruptions, reflecting modes of human thought and behaviour. Through an aleatoric technique of graphically defining those interruptions, *Threshold* attained the indeterminacy of a mobile form emanating from the notated score's visual representation.

Following this initial exploration of structural determination, my research focused on attempts to analyze general perceptions of what is called musical material and to arrive to a specific method of defining it, through the process of composing *Condor Sylens* (Chapter 2). Investigating Modernism's tendency to deconstruct preconceived notions on musical material, I examined the implications of Schoenberg's serial theory on modernist musical thinking and its

legacy thereafter, by the proliferation of compositional approaches involving multiple layers of qualitative categorization and micro-/macro- structural organization. Reflecting on concepts of unifying musical parameters by Stockhausen (1957), Xenakis (ca. 1954) and Boulez (1952), I sought the creation of a system which could self-referentially integrate and generate the parameters of pitch and rhythm. Initially, a pitch series was produced, characterized by the element of *enhanced pitch attraction* by which, permutations of the series where interrelated through the ability to simultaneously unfold within each other in irregular steps. This irregular unfolding of one structure within another is then expressed with the use of ratios to produce a sequence of rhythms, consequentially reflecting the pitch series' characteristic of *enhanced pitch attraction*. Finally, *Condor Sylens* attempts to link this unified generation of pitch and rhythm with other parameters by gesturally reflecting the use of language in three short poems by Greek Surrealist poet Andreas Embiricos (1980).

The natural progression in my compositional research was to investigate the integration of musical material and structure by attempting to determine a unified compositional model. A historical inquiry into the variety of ways in which science and nature informed the construction of musical material and form led to a critical analysis of this approach by referring to theories by Stockhausen (1957) and Xenakis (ca. 1954). Through an assessment of the application of scientific knowledge on musical composition, it was argued that there is a conflict between the moral objectivity and universality of science and the subversive potential of human expression through music.

The latter's subjectivity has a closer affiliation with language and human constructed narratives. Poetry can be perceived as the potential of language to be manipulated, deconstructed and subverted, giving rise to types of human expression beyond the utilitarian needs of communication. The apparent associations between poetry and music and a personal interest in Surrealism as a movement, led the course of research to a detailed exploration of Embiricos' (1980) work and more specifically his prose poem *Many Times in The Night*.

A detailed analysis of the poem revealed a multiplicity of linguistic, conceptual and structural layers. Vassilis Letsios' PhD thesis (2003) provided an in depth analysis of a complex network of linguistic subversion that pervades the poem in its lowest structural level. Narrative discontinuity and extremity of content are the salient macrostructural features. Having constructed the poem's detailed structural matrix, in which the element of duality was evident throughout, I sought to derive an interface between that matrix and the parametric time-axis of musical notation. Through a series of analogies, I established a detailed matrix for a time structure. The musical material that would constitute the construction fabric of this musical architecture was derived by deploying the concept of enhanced pitch attraction which was first used on Condor Sylens. Subsequently, dualities of gestural and textural material where associated with dualities within the structural matrix, finally defining the form of the composition that took the poem's title.

In the end of Chapter 3, comparisons are made between *Many Times in The Night* and two major poetically influenced works; Schoenberg's *Pierrot Lunaire* (1912) and Boulez's *Le marteau sans maître* (1954). Despite a number of contextual, conceptual and linguistic parallels drawn, the distinction is made that *Many Times in The Night*, instead of manipulating the text, essentially strips the poem off its semantic content and transfers its formal architecture onto the musical sphere.

Following the rigorous and deterministic compositional approach for *Many Times in The Night*, the making of *The Film Sextet* marked an experimental turn towards indeterminacy. Being involved as a performer in free improvisation, I had the opportunity to observe and analyze the effects of unmediated performative behavior and interaction. At the same time, the art of filmmaking and its language seemed increasingly relevant to my compositional research. The central idea behind *The Film Sextet* became that of using film as an extra-musical art form through which to derive ideas on the temporal and sequential manipulation of structure and perception, based on film techniques: the editing process as a

sequence of events in time, and the layering of visual and temporal activity as a technique of creating an evolving density of sensory events. Influenced by Louis Malle's practise, in *L'ascanseur pour l'echafaux* (1957), of exposing the improviser Miles Davis to an intense 'constellation' of moving images, generating a 'constellation' of musical material to be redistributed throughout the cinematic structure, I sought similar methods of approach in my research. Another influence was Boulez's development of compositional processes based on Mallarmé's *Un coup de dés* (1987), which introduced new levels of structural freedom. Through the use of layout and spatial arrangement, *Un coup de dés* presented the reader with a number of interpreting possibilities by the use of complex sentence layering and interchangeable meanings.

Eventually, *The Film Sextet* was conceived as an expansion of the original concept of duality in *Threshold* by creating three strands of duet interaction. The structure comprises of a combination of events fixed in time and events generated by a chain of information derived by the unfolding of film structures. The element of indeterminacy is expressed through a complex and unpredictable interfusion of real-time choice-making and extra-musical structures. The element of duality appears in the subjective interpreting process through the rules of choice-making but is also manifest in the composed instrumental parts.

Concepts from *Threshold* and *The Film Sextet* where developed and combined in order to produce the solo work *egg*, for oboe and two CD players. The 'Random Mode' feature is the aleatoric function which provides the interruption points and partly determines the structure. The use of traditional notation and 'audio scores' creates a sense of notational disorientation, with the intention of disorganizing the performer's perception of musical time.

The Solar Anus, inspired by the homonymous text by Bataille (1999), is a larger scale intuitive composition which expands the gestural and textural features of Many Times in The Night to the scope of a large ensemble. Rhetorics is a short improvisational concept, which is transformed through the use of

layered multitrack recordings into a series of audio tracks that express a multitude of improvisational modes and strands of interaction.

It is apparent that the progress of this research followed a trajectory of gradual engagement with elements of pre-compositional and compositional planning. From *Threshold* through to *Many Times in The Night*, the generation of material and structure reached a maximum level of determinacy. The elements of *enhanced pitch attraction* and duality of material, combined with an extremely detailed conversion of a poetic structure into a time-based matrix, delivered a compositional system with a degree of aesthetic integrity that may constitute the basis for a compositional language. Thereafter, from *The Film Sextet* through to *Rhetorics*, indeterminacy was introduced in gradually increasing levels, by the deployment of film structures, chance processes and spontaneous decision making, challenging the imperative of maintaining the integrity of a crystallized compositional system.

In conclusion, the research process, as a mutable investigation of possible associations between music, poetry and film, appears to be itself an inevitably inconclusive form of compositional language, defined by the ideas of Surrealism, Serialism, indeterminacy, chance and improvisation.

References

- Agra Publications, 2004 [online]. Available from: http://www.agra.gr
- Ascenseur pour l'echafaux, 1958. Film. Directed by Louis MALLE. France.
- Ascenseur pour l'echafaux O.S.T., 1990. Audio CD. Miles Davis. Polygram Records.
- Ascension, 1965. Audio CD. John COLTRANE. Impulse! Records.
- BATAILLE, G., 1987. *Story of the Eye*. 1st ed. San Francisco: City Lights Publishers.
- BATAILLE, G., 1999. *Visions of Excess, Selected Writings* 1927 1939. Transl. Allan Stoekl. Minneapolis: University of Minnesota Press.
- BOULEZ, P., 1985. *Conversations with Célestin Deliège*. New York: Perseus Books.
- BRETON, A., *Manifesto of Surrealism* (1924) [online]
 Available at:
 http://www.tcf.ua.edu/Classes/Jbutler/T340/SurManifesto/ManifestoOfSurrealism.htm
- BRETON, A., 1969. *Manifestoes of Surrealism*. Transalted by Richard Seaver and Helen R. Lane. Ann Arbor: University of Michigan Press.
- BULLOCK A. AND STALLYBRASS O., 1988. *The Fontana Dictionary of Modern Thought.* 2nd ed. London: Fontana Press.
- COWELL H., 1930. *New Musical Resources*. 3rd ed. New York: Something Else Press.
- EMBIRICOS, A., 1980. OKTANA. 1st ed. Athens: Ikaros Publications.
- EMBIRICOS, A. 1980. *Blast-Furnace (Ypsikaminos)*. 1st ed. Athens: Agra Publications.
- GIRAUD, A., 2001. *Pierrot Lunaire*, Transl. Gregory C. Richter. Kirksville: Truman State University Press.
- Le Sang d'un Poète, 1930. Film. Directed by Jean COCTEAU. France.

- LETSIOS, V., 2003. "The ghost behind the arras": transformations of the 'political verse' in twentieth-century Greek poetry. Thesis (PhD). University of London.
- *Merriam-Webster Online Dictionary*, 2004 [online]. Merriam-Webster, Incorporated. Available from: http://www.m-w.com
- STOCKHAUSEN, K., 1957. "...how time passes...". *Die Reihe* #3. English trans. Cornelius Cardew 1959.
- STACEY, P. F., 1987. Boulez and the Modern Concept. England: Scolar Press.

The Exterminating Angel, 1962. Film. Directed by Luis BUÑUEL. Mexico.

Un Chien Andalu, 1927. Film. Directed by Luis BUÑUEL. France.

- XENAKIS, I., 2001. Formalized Music: Thought and Mathematics in Composition. New York: Pendragon Press
- YOUNG, E., 1996. *The Complaint or Night Thoughts on Life, Death, and Immortality*. New York: Dover Publications.

Musical Scores

BOULEZ, P., 1955. Structures, Livre I. London: Universal Edition

BOULEZ, P., 1957. *Le marteau sans maître*. London: Universal Edition.

BOULEZ, P., 1968. *Piano Sonata no.*3. London: Universal Edition.

MESSIAEN, O., 1950. Mode de valeurs et d'intensités. Paris: Editions Durand

NEUWIRTH, O., 2000. Settori. London: Boosey and Hawkes.

SCHOENBERG, A., 1912. Pierrot Lunaire, op.21. London: Universal Edition.

XENAKIS, I., 1954. *Metastaseis*. London: Boosey and Hawkes.

XENAKIS, I., 1983. *Tetras*. Paris: Editions Salabert.

XENAKIS, I., 1976. *Mikka* <<S>>. Paris: Editions Salabert.

XENAKIS, I., 1996. *Hunem Iduhey*. Paris: Editions Salabert.

Appendix

Syllabic structure for A. Embiricos' (1980) poem Many Times In The Night (Chapter 3)

Note: Underlined numbers correspond to *political* verse and non-underlined numbers correspond to free prose.

<u>Prelude I</u>: <u>15, 8,</u> 10, <u>7, 5, 8, 4, 6, <u>11, 14, 8, 8, 15, 26, 7, 8, 10, 7, 11, 8, 89</u></u>

<u>Prelude II</u>: <u>8</u>, 3, <u>8</u>, 3, <u>8</u>, 16, <u>7</u>, <u>8</u>, 28, <u>8</u>, 11, <u>7</u>, <u>8</u>, <u>8</u>, <u>15</u>, 37, <u>7</u>

Sonic Intro: 15

Sounds A: 15, 8, 15, 6, 7, 61, 8, 8, 7, 15, 15, 15, 54

Sound Motif: 8

Episode I: 8, 10, 7, 40

<u>Episode II:</u> 2, <u>8</u>, 11, <u>8</u>, 92, <u>15</u>, 98, <u>8</u>, 17, <u>7</u>, 26, <u>8</u>, 10, <u>8</u>, 8, <u>7</u>, 19, <u>7</u>, 9, <u>8</u>, 119

Sound Motif: 8, 8, 8

<u>Episode III:</u> 9, <u>15</u>, <u>8</u>, 51, <u>7</u>, <u>8</u>, 29, <u>7</u>, <u>8</u>, 76, <u>8</u>, <u>8</u>, 23, <u>7</u>, 15, <u>7</u>, 12, 1<u>5</u>, 35

Sonic Intro: 15

Sounds B: 15, 15, 3, 7, 8, 21, 8, 25, 8, 6, 7

Sounds (Bright): 2, 8, 14, 8, 14, 7

Sounds Motif: 15

Sounds: 80

Sonic Intro: 15

<u>Sounds C:</u> 24, <u>8</u>, 1, <u>8</u>, 13, <u>8</u>, 16, <u>8, 8</u>, 4, <u>7</u>, 10, <u>15</u>, 19, <u>8</u>, 11, <u>8</u>, 12, <u>8</u>, 11

Sonic Intro: 15

<u>Sound Incidents</u>: <u>8</u>, 25, <u>15</u>, <u>8</u>, 9, <u>8</u>, 8, <u>8</u>, <u>15</u>, 84, <u>8</u>, 20, <u>7</u>, 11, <u>8</u>, 4, <u>7</u>, 10, <u>8</u>, 72, <u>8</u>, <u>8</u>, 6, <u>7</u>, <u>8</u>, 51, <u>8</u>, 8, <u>8</u>, 11

<u>EpisodelV:</u> ..., <u>7</u>, 11, <u>8</u>, 6, <u>8</u>, 5, 8, 45, <u>7</u>, 42, <u>8</u>, 30, <u>7</u>, 170, 8, 40

Sonic Intro: 23, <u>15</u>, <u>15</u>, 9, 7, 19

<u>Episode V:</u> 77, <u>7</u>, 62, <u>8</u>, 47, <u>8</u>, <u>8</u>, 17, <u>19</u>, 45, <u>8</u>, 35, <u>8</u>, 13, <u>7</u>, 11, <u>15</u>, 9, 10, <u>8</u>, 3, <u>8</u>, 26, <u>8</u>, 41, <u>8</u>, 6, <u>8</u>, 5, <u>8</u>, 8, <u>7</u>, 14, <u>8</u>, 7, <u>8</u>, 17, <u>8</u>, 24, <u>7</u>, 12, <u>7</u>, 103, <u>8</u>, 29, <u>7</u>, 25, <u>8</u>, 26, <u>8</u>, <u>8</u>, 54, <u>8</u>, 5, <u>8</u>, <u>8</u>, 17, <u>15</u>, 23, <u>8</u>, 14, <u>7</u>, 78, <u>8</u>, <u>8</u>, <u>8</u>, 125, <u>8</u>, 33, <u>8</u>, 8, <u>7</u>, <u>15</u>

Sound Interlude: 8, 22

Sounds/Incidents: 15, 8, 5, 8, 32, 8, 8, 3, 7, 8, 57, 8, 29, 8, 11, 8, 20

Sonic Intro: 12

<u>Sonic Incidents (Crucifixion):</u> 8, 7, 8, 11, 15, 8, 68, 8, 13, 8, 10, 8, 14, 15, 7, 8, 17, 8, 23, 8, 23, 8, 34, 8, 4, 8, 14

Sonic Intro: 12

<u>Sonic Incident (life-...):</u> 8, 9, 7, 4, 8, 8, 8, 8, 8, 11, 8, 15, 7, 8, 8, 9, 8, 24,

Sonic Intro: 2, 8, 10, 8, 32

Quote I: 12,7

Connection: 12, 8, 12, <u>15</u>

Quote II: 6x7

Connection: 19

Quote III: 5, 7, 13, 14, 7,

Sonic Intro: 10, <u>7</u>,

Episode(Couple): 15, 31, 15, 47, 8, 10

Coda-Out...Counterlude: 8, 23, 8, 94, 15, 44, 8, 14