

Xenakis Young



Iannis XENAKIS 1922–

Composer, architect, civil engineer. Born in Rumania of Greek parentage; ed. Polytechnic School of Athens; music composition studies with Hermann SCHERCHEN, Oliver MESSIAEN, and Darius MILHAUD; Doctor of Letters and Humanities, Université de Paris I (Sorbonne), 1976. Greek resistance fighter, World War II; condemned to death, political refugee in France since 1947; French citizenship, 1965. Architectural collaborator for 12 years with LE CORBUSIER, Paris; innovator of stochastic music and symbolic music through introduction of probability calculus and set theory into

instrumental, electro-acoustic, and computerized musical composition. Founder and director of the Centre d'Etudes de Mathématiques et Automatique Musicales (CEMAMu; since 1966, Paris) and Center of Mathematical and Automated Music (1967–72), Indiana University; associate professor of music, Indiana University (1967–72); member of the Centre National de Recherche Scientifique, France (1970–72); professor at the Université de Paris I, France. Married to well known French novelist; lives in Paris.

Principal Works

1954	Metastaseis	orchestra
1956	Pithoprakta	orchestra
1957	Achorripsis	21 instruments
	Diamorphoses	electronic
1958	Concret PH	electronic
1959	Analogiques A/B	9 strings & tape
	Duel	2 orchestras
	Syrmos	18 strings
1960	Orient-Occident	electronic
1961	Herma	piano
1962	ST/10 and ST/4	ensemble
	Amorsima-Morsima	10 instruments
	Morsima-Amorsima	4 instruments
	ST/48	48 instruments
	Stratégie	2 orchestras
	Atrées	10 instruments
	Bohor	electronic
1964	Eonta	piano & 5 brass
1965	Akrata	16 wind instruments
1966	Terretektorh	large orchestra
1966	Nomos	cello
	Oresteia	choir & instruments
1967	Nuits	12 voices
	Medea	choir & instruments
1968	Nomos Gamma	orchestra
1969	Anaktoria	octet
	Synaphai	piano & orchestra
	Persephassa	6 percussionists
1970	Hibiki Hana Ma	audio-visual
1971	Persepolis	electronic
	Antikhthon	ballet
1972	Polytope de Cluny	audio-visual
1973	Evryali	piano
1974	Erikhthon	piano & orchestra
	Gmeeoorh	organ
1975	Psappha	percussion
	N'shima	2 voices/5 instruments
1976	Theraps	double-bass
	Khoai	harpsichord
	Mikka S	violin
	Dmaathen	oboe & percussion
1977	Kottos	cello
	Akanthos	soprano & 8 instruments
	La Légende d'eer	audio-visual
JONCHAIES		large orchestra
1978	Ikhoor	string trio
	Pleiades	percussionists
1979	Palimpsest	chamber orchestra
	Dikhthas	violin & piano
1980	Ais	baritone & orchestra
1981	Mists	piano
	Nekuia	choir & orchestra
	Serment-Orkos	choir
	Komboi	harpsichord & percussion
1982	Pour la Paix	choir

Publishers

Boosey and Hawkes Ltd
295, Regent Street
London W.1.
(01)-580 2060

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22, rue Chauchat
75009 Paris

London agents for Salabert:
United Music Publishers Ltd
42, Rivington Street
London E.C.2.
(01)-729 4700

Jonchaies

1977 – commissioned by Radio France for L'Orchestre Nationale de France

It is appropriate that pieces by Xenakis and Young should appear on the same record, for Xenakis' "stochastic" music (music of maximum change, not reducible to any single formula) was a considerable influence on Young while he was working through the ideas that eventually led to the composition of **Third Night Journey under the Sea and Rain, steam and speed**. A propos of Xenakis, Young has said:

"From the outset Xenakis was concerned with what we **actually hear** in music: with types of musical **behaviour** which are discernable by the ear alone and which engage our interest at **all** levels – physical, intellectual and emotional. Over the past three decades the processes of thought in Xenakis' music have become ever clearer and more elemental. **Jonchaies** is a particularly fine illustration of this."

Xenakis is indubitably one of the musical giants of our time and even his earliest music still comes across with considerable creative force. Unlike the composers of integral serialism, Xenakis aimed not so much to extend a narrow European tradition as to "track down. . . . the mental operations that are valid for all music." He considered, with some justification, that the audible result of the complexities of integral serialism produced a fortuitous distribution of notes whose detail was lost on the listener.

Xenakis qualified first as an engineer and then as an architect. Therefore, although he considered that "instinct and subjective choice are the only guarantors of a work's value", he approached the problem of form from a scientific and mathematical base. Growth must spring from primary matter, from the initial "assymetrical, non-commutative character of time". Symmetrical, commutative time can only occupy second place. **Form is therefore conditioned by the degree of order and disorder of the molecular elements and cannot be isolated from the content.** Changes in the degree of disorder and order can in fact be controlled by the laws of probability and statistical physics. The molecular structure can be controlled by advanced mathematical calculation in order that the distribution of sonorous events will result in overall fluctuations that are clearly perceivable by the listener.

Xenakis claims to be concerned with original, "simple notions":

"The first impression the ear receives of sound is of textures. These are perceived as primary elements which the eye or the ear "knows" and recognises as form. A texture is a fairly large collection of sound phenomena, considered as elements ruled by unchanging structural laws. Internal sections are repeated sufficiently often to create a feeling of texture. . . . The way in which these laws are applied, and the choice of basic sounds that will be subject to these laws, should be such that the result is experienced primarily as a texture and moreover as an interesting one."

"Jonchaies" was commissioned by Radio France for L'Orchestre Nationale de France in 1977 and was subsequently selected for the ISCM Festival in Israel in 1980, though not performed due to the size of orchestra required. "Jonchaies" means "a plantation of rushes". The relevance of this title should be obvious from the music. The stems of rushes have an overall sameness, yet each is marginally different in size and shape and will intertwine with its fellows, or cross their paths independently. Different varieties of rush have their own shapes, densities and textures, both individually and in relation to each other and the overall landscape. These patterns, shapes and movements in rushes are expressive of themselves as well as of the movement of the greater forces of wind and water.

Like so much of Xenakis's music, "Jonchaies" demands and creates a sound world of strained activity: a kind of desperate bid for a supreme goal that remains elusive. Rationally approached, much of the score of "Jonchaies" is literally unplayable. Yet the unique power of music itself is essentially irrational; so the dynamism of "Jonchaies" resides in the desperate attempt at the impossible. The energy created by the variegated textures is transferred to the players: rehearsal has proved that it is impossible to approach this piece with less than 100% energy (in a five minute section of frenetic activity the strings have nothing but down bows). The ever-changing degree of order and disorder within the various textures and their superimpositions respects the listener's musical memory. It is this precondition of musical form that gives Xenakis's music its uniquely bewitching quality.

● Peter Fletcher



Douglas YOUNG 1947—

Composer, pianist, conductor, writer and broadcaster. Born in London; musical studies at Trinity College of Music, and Royal College of Music (composition scholarship). Karl Rankl Prize for orchestral composition (*Musica Nova* 1970); commissions from Royal Ballet, English Chamber Orchestra etc. **Fellow Commoner in the Creative Arts** at Trinity College, Cambridge (1973–75); Composer in residence to Leicestershire Education Authority (1975–7). Founded the ensemble DREAM-TIGER in 1975; many performances of Xenakis, Pousseur, C. Wolff, Crumb, Scelsi, Sciarrino, Febel etc. Considers most important compositions those since 1978. Recent studies in Oriental music. Writes frequently for **Tempo**. Currently at work on BBC Commission "**First Night Journey under the Sea**" for 4 soloists and chamber orchestra; also a series of works "**Portrait of Apollinaire**", an instrumental and electronic ballet score, and several works for cellist Rohan de Saram. Married with one daughter; lives in London.

Principal Works

1967	The Listeners	dramatic cantata
1969	Sinfonietta	small orchestra
1970	Canticle (Auden)	SATB
1971	Essay	string quartet
1973	Realities (Yeats)	voice & ensemble
1974	Charlotte Brontë	ballet
1972-7	Compasses	clarinet & string trio
1975-7	Vers d'un Voyage (Apollinaire)	12 voices

1975	Poem 66 (E.E. Cummings)	soprano, percussion, piano
1976	Croquis et Agaceries (after Satie)	flute, vcl., piano
1977	10 Préludes (after Satie)	vcl., piano
	Columba	piano
	Chamber Music (Joyce)	soprano & guitar
1978	Virages-region one	cello & large orchestra
	Trajet/inter/lignes	flute (= picc.)
	Circus Band and other pieces (-after Ives)	orchestra
1979	Sieve League	violin & viola
1980	Second Night Journey under the Sea	viola & 11 strings

THIRD NIGHT JOURNEY UNDER THE SEA

large orchestra

RAIN, STEAM & SPEED

orchestra

	Sports et Divertissements (- after Satie)	clar., string trio, piano
1982	The Hunting of the Snark	narr. SATB. pno. ch. orch.
	Symbols of Longevity	clarinet
1983	Ten Symbols	clarinet
	Dreamlandscapes	piano
1984	Lament on the destruction of forests	sitar & orchestra
	Ukusa saha Musladi	sop., fl., Kandyian drum, perc. (2)
1985	String Trio	vln., vla., vcl.
	First Night Journey under the Sea	fl., vln., vcl., perc. solos & chamber orchestra

Publisher

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Church Street
Chesham
Bucks
HP5 1JG
(0494)-783311 & 784427

also

Ricordi

Milan, Munich, Paris, Toronto
New York (Schirmer)

(some early works in catalogue of **Faber Music**)

Introduction

Some years ago I made a detailed study of Cubism and especially the work of George Braque. I was particularly struck by the so-called Synthetic phase of Cubism during which the different elements of a picture became dissociated from one another: form, colour and substance were no longer seen as contributing to a composite image but were treated separately. Thus shape might be conveyed by a thin pencil line, colour by an amorphous block of paint, texture by a piece of material pasted onto the canvas: but all three elements (and indeed others) were separated from each other, examined independently, and contributed to the composition rather in the manner of a metaphor.

Thinking about this it occurred to me that the different elements of music – melody, rhythm, harmony, timbre etc. – were usually seen as **parameters** of a single complex entity, rarely as things in themselves. It is true that a number of composers in the past 30 years have written works which analyse a particular musical element (usually timbre) in unusual depth. But such activity is rather like examining the individual fragments of Humpty-Dumpty's shell: it is not particularly interesting in itself and it leads only to the banal conclusion that egg shells are often oval.

As Paul Klee observed: "they need not be".

Rather than seeing rhythm, melody, timbre, dynamics *et al.* as **parameters** of a composite entity, it seemed to me that it could be useful to treat them as discrete **elements**, whose

relationship to one another would be that of co-existence rather than symbiosis.*

("Colour acts simultaneously with form, but has nothing to do with form" – Braque.)

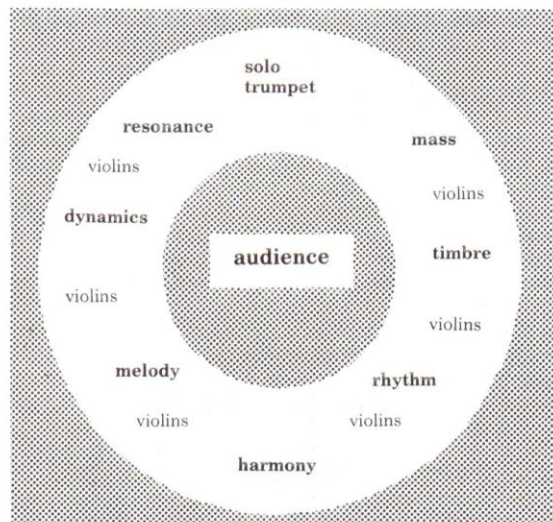
The two orchestral works presented here were among my first attempts at designing a new shape of shell for Humpty-Dumpty.

* Two works which explored similar ideas to mine (in embryonic form) were the first movement of Messiaen's *Quatuor pour le fin de temps*, and some parts of Stockhausen's *Momente*. The freedom of Jazz with its relative dissociation of melody, harmony and rhythm is also interesting.

Third Night Journey under the Sea

March–April 1980 & June 1982; revised August – September 9th 1983

The origins of this work go back several years to a holiday on the west coast of Ireland. Watching the movement of sea-weed being contorted into fantastical shapes by the action of the tide and currents I felt the desire to create a piece of music which would parallel (in sound) this visual effect and its underlying causes. In order to achieve the necessary complexity of polyphonic interaction I divided the orchestra into seven chamber ensembles which surround the audience in an enormous circle.



Each of these ensembles concentrates principally on developing **one** musical element only; these are given in the order in which they enter in the work :

- 1 Resonance – tuned percussion, harp, celesta, piano
- 2 Dynamics – brass
- 3 Melody – saxophone, oboe, horn, violin, cello
- 4 Harmony – woodwind and horns
- 5 Rhythm – drums
- 6 Timbre – solo woodwinds, solo brass, solo strings
- 7 Mass – violas, cellos, double-basses

(These seven groups are linked, musically and geographically by six groups of violins who play, for the most part, a 'drone' around the note of G which acts as a centrifugal focus and vanishing point for the music of the seven groups.)

In addition to developing their principal element, each of the seven groups also echoes the six other groups – but in its own terms. Thus, for example, Group 4 plays a sequence of seven massive chordal harmonies – but each chord is interspersed by an echo of one of the other groups, provoking the compositional conundrum of harmonic-melody, harmonic-timbre, harmonic-rhythm etc. The exact sequence of events for Group 4 is given below:

GROUP FOUR –Harmony

CHORD 1

— silence (55 seconds)

CHORD 2

— harmonic – melody

CHORD 3

— harmonic – dynamics

CHORD 4

— harmonic – resonance

CHORD 5

— harmonic – mass

CHORD 6

— harmonic – timbre

CHORD 7

— harmonic – rhythm

— and similarly for all other groups. (Those wishing to analyse these processes in detail should consult the full score published by RICORDI.)

The music begins with a 'descent' under the waves. A solo trumpet outlines the basis musical material in its most embryonic form. Each group then enters with its own distinctive musical idea until all seven are in play. The complex 'syzygy' which results grows very slowly more turbulent, until it finally implodes onto a single note propelled by an enormous crescendo. A short 'epiphany' for trumpets and percussion leads to an 'ascent' which concludes the work.

As well as evoking an underwater seascape in which a plethora of shapes, some clear, some veiled, move and intertwine at different speeds, *Third Night Journey* draws on the mythological symbolism of the 'Quest' through the dark and mysterious realms of night and ocean, in search of the transforming 'epiphany' of dawn.

Rain, Steam and Speed

March–June 1981; revised 1984

"*Rain, steam and speed – the Great Western Railway 1844*" is a painting by Turner in which a powerful sensation of movement and recession is conveyed through colour and texture rather than through line and perspective. In my short orchestral work I have tried to express the dynamism of growth and development without recourse to the traditional techniques of thematism. Instead of themes or motifs I have used seven types of **musical behaviour** (or **elements**) closely modelled on those in *Third Night Journey under the Sea*. But whereas in the latter work the seven **elements** are heard **simultaneously** in a dense morass of sound, in *Rain, steam and speed* they are heard successively (but interleaved.) At any point in the work one **element** predominates, another is moving towards its peak, another is falling away, and all are in some degree of growth or decay.

After a short introduction this process begins, each element reaching its climax in the following order:

- 1 Mass – (clusters & trills in strings)
- 2 Timbre – (mixed instrumentation on single notes)
- 3 Resonance – (tuned percussion, piano, harp)
- 4 Melody – (very fast lines in tremelando strings)
- 5 Dynamics – (low brass crescendi/diminuendi)
- 6 Harmony – (woodwind, horns etc.)

As the **chordal** climax begins to decay, a solo piano plays a very fast 'cadenza' which recapitulates the entire work thus far, but in reverse – like a colour movie-film being rewound rapidly in **black and white**. This precipitates a sustained peroration on the seventh element – **rhythm** – entrusted to the percussion alone, but off-set by an ostinato (in 3 low trombones) whose absolute regularity of pulse throws the percussion's wild intentions into sharp relief. As this fades away a sudden orchestral **tutti** presents all seven elements superimposed. This returns us to the music of the introduction, thus stressing the cyclical nature of the work. But a ghostly echo of the **tutti** intervenes (the train disappearing into the distance) and with a swift coup de grace the seven minute piece is over.