The Score

The *score* functions like a time-chart upon which patterns and other events are organized within areas of duration.

"Pattern" stands for an independent system of either static or active events.

In the score, patterns are written mainly in *synthetic notation*. I have chosen this term because, in this type of notation, elements of notational material expressing components of the pattern are so assembled as to *suggest* the nature of the result as a whole; *for example:*

> The collective effect of softly reiterated notes, sustained for varying durations and separated by breaks of shorter durations (Pattern 1/a), is *suggested* by layers of thin, horizontal lines (violins 1, cue-1); or, *for example:*

> The collective *hammering* effect of erratically swiped random chords (Pattern 17/a), performed by the massed groups of violins, violas and cellos, is *suggested* by a thick, compact mass into which clusters of notes seem to be nailed (cue-89).

Contrary to proportionate and metrical notation, synthetic notation does *not* mirror occurrences on a one-to-one basis. (Where events do have a one-to-one correspondence with the marks in the score, the notation is not synthetic: it is either proportionate or metrical; even so, some of these patterns have a certain pictorial quality in common with synthetic notation—e.g., Patterns 4, 22, 28). Synthetic notation creates a picture, as it were, whose visual impact is taken in immediately, as a whole, and not analytically in stages. For performance, these "pictures" must be unscrambled, *decoded* by reference to the prepared set of *specifications*.* These specifications provide the conductor with full explanations.

---

*The *specifications* referred to here are extensively detailed and, hence, will be published in a separate article in a future issue of *Source*, along with a typically realized part and a complete recording of *Enantiodromia* by the Oakland Symphony Orchestra.

In addition, the part-material itself is written analytically (in either proportionate or metrical notation).

The advantage, it is hoped, of a score marked in synthetic notation is that most of the information *not* required by the conductor during the act of conducting (i.e., during the act of taking in the overall parameters of the music—reading the score) may be left out. By providing instant identification of the events it expresses, synthetic notation, together with a minimum number of *signs*, makes any moment in the score, however complex, intelligible—even at a glance—and in as compact a space as possible.

This score provides the following information:
— points of entry and cessation
— types of group-playing ("scattered" or synchronized)
— dynamics (basic guide-line as well as individual dynamics, where these are different from the basic dynamic line)
— pitches and pitch-areas
— durations
— constant characterization of all patterns (by means of their synthetic layout)

* * *

Conducting

The conductor may use a conducting-aid, the function of which is to display each successive cue-number clearly (such as slides projected onto a screen, or any other means of displaying successive numerals on a screen visible to all). There are various practical ways of operating such a conducting-aid. The conductor may do this himself (by remote control), or an assistant may be called upon. If projection equipment is not available or practical, then the assistant may display the successive numerals on large squares of cardboard. Whether the conductor uses an assistant or not, he signals each successive cue-number with a clear downward movement of the right hand. The conducting-aid is certainly not obligatory, but it can be very practical.
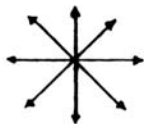
* * *

The Signs
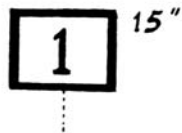
AREA-MARK

a "traffic-sign" that marks the beginning of each area of duration and encloses its cue-number; the duration of each area is given in seconds

SCATTER

a "traffic-sign" operating in group patterns that applies to a group under a particular set of specifications (see above) and directs each member to perform on his own, to go his own way along an independent direction; the main characteristic of the "scatter process" is the proliferation of constantly shifting, indeterminate relationships, achieved by compounding the unique activities of each separate individual caught up in a collective pattern (like the chirping of many birds, the murmuring of a crowd, the sound of hail, the trumpeting of a flock of geese, the uncoordinated movements of people in a square—or the sound of them panicking)

SYNCHRONIZE

a "traffic-sign" that is the opposite of "scatter"

STOP DEAD

a "traffic-sign" that is an abrupt and total "switch-off"; the cut must be sudden and complete with no trailing of unfinished material

AT RANDOM

appears only once in the score (cue-115), but is used in connection with *continuity signs* operating in the part-material and fully explained in the specifications
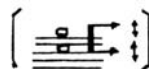
CLUSTERS

a cluster of notes

specifies the cluster (all the notes within the limits indicated, including the limit notes)

each member of the group delivering only one of the notes of the cluster

each performer (of the group) delivering all the notes (usually at random) within the limits specified (including the limit notes) while carrying out the pattern for which it is operative

each member of the group playing more than one note within the cluster, but not all the notes
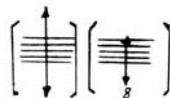
each member of the group performing throughout an extensive range, as indicated (middle to acute, entire range)

DYNAMICS

only just audible: on the threshold of audibility

fade in, fade out

PSYCHOLOGICAL

psychoid factor

Metapraxis

the participant being required to perform an action (praxis) of a different category: e.g., the conductor's gesture (cue 69, cue 117), a string-player's cry (cue 70, etc.), the full orchestra's panic-stricken yelling and screaming (with the exception, of course, of wind instrument players)

The Orchestra

2 piccolos	4 horns	1 grand piano, amplified,
4 flutes	4 trumpets	without cover
3 oboes	3 trombones	*Batteria A,* 3 performers
3 clarinets	1 tuba	*Batteria B,* 3 performers

"Explosive Section," 3 performers

Violins, *Group 1,* 8 instruments	Violas, 8 instruments
Violins, *Group 2,* 8 instruments	Cellos, 8 instruments
Violins, *Group 3,* 8 instruments	Basses, 6 instruments

All strings, except the basses, perform scordatura. The highest string of each of the eight instruments in each of the three groups of violins, the group of violas, and the group of cellos is tuned as follows:

1° and 2°	raised one whole-tone
3°	raised ¾-tone
4° and 5°	raised ½-tone
6°	raised ¼-tone
7° and 8°	*tuned normally*

Otherwise, instruments sound as written, with the usual exception of octave transporters.

The piano is amplified. Normally, its volume level is only moderately amplified, but amplification is increased at those points coinciding with the explosive impacts of the "Explosive Section" (cues 82, 85, 89, 93, 99, 104, and 117). The pianist should be provided with two small, shallow metal cups (bowls or ash trays), each of which should fit into the palm of the hand, as well as one heavy ruler, approximately 21 centimeters long. The strings of the interior of the piano are divided into four sections marked S—A—T—B. This corresponds to the areas divided by the inner frame from the highest to lowest strings.

Batteria A is provided with:

Blocks	3 wood blocks—high, medium, low
	6 Chinese blocks—high to low
	(pitches of all blocks must be different from pitches of blocks in *Batteria B*)
Drums	3 Conga drums—high, medium, low
	3 tom-toms—high, medium, low
	3 timpani—tuned, starting from the deepest: *E, B-flat, F-sharp*
Cymbals	6 hi-hats, very acute down to medium (very small instruments)
Xylophone	standard range

Batteria B is provided with:

Blocks	3 wood blocks—high, medium, low
	6 blocks of any sort having a piercing quality and ranging from high to low
Cymbals	6 different instruments, from medium to very deep
Gongs	3 instruments—medium, low, very deep (hand-suspended for Pattern 27, cue-116)
Military Drums	2 instruments, one very acute *(tambouro piccolo)* and one normal *(tambouro militare)*
Whip	

For the amplified "Explosive Section" (Pattern 28; cues 82, 85, 89, 93, 99, 104, 117) the following instruments are provided:

3 tubular bells sounding

1 extremely deep bell of indeterminate pitch

2 extremely deep gongs, differently pitched

2 large "sizzle" cymbals, differently pitched

1 very large bass drum

Technical note: All the instruments of the "Explosive Section" are electronically amplified. When they are struck, the collective impact should result in an almost deafening explosion, capable of cutting through the full orchestra playing at its maximum loudness. Specifications for the necessary equipment must therefore be calculated accordingly, and in relation to the size of the auditorium.

Jani Christou studied music with Dr. Hans Redlich at King's College, Cambridge, where he received a degree in philosophy in 1950. His early works include *Phoenix Music* (1949) for orchestra, which was first performed in 1950 at Covent Garden; *Six Songs on Poems by T. S. Eliot* (1955) for mezzo soprano and orchestra, first performed in 1956 on Athens radio; *Patterns and Permutations* (1960) for orchestra, first performed at Darmstadt in 1966; *Toccata for Pianoforte and Orchestra* (1961); and *Tongues of Fire* (1966) for mixed chorus and orchestra, which was first performed at the English Bach Festival, Oxford, 1966. More recent works include *Mysterion* (1965) for triple chorus, tapes, and orchestra, the world premier performed on TV Copenhagen in 1969; *Praxis for Twelve* (1966) for four string players and piano, first performed at the 1st Hellenic Week of Contemporary Music, Athens, 1966; *The Strychnine Lady* (1967) for viola soloist, two string groups, percussion, toys, tapes, five actors, a red cloth, first performed at the 2nd Hellenic Week of Contemporary Music, Athens, 1967; *Enantiodromia* (1968), world premier by Oakland Symphony in 1969; *Epicycle* (1968), a "concept" score, *any* application, first performed during the 3rd Hellenic Week of Contemporary Music, Athens, 1968; and *Anaparastasis* (1966 to date), a cycle of over forty works using an unlimited range of media, from pieces for one performer to pieces using vast complements of performers and listeners.

"There is the concept TIME. This is approached through another concept: PATTERN, seen as the phenomenon whereby events proliferate through various types of repetition and are multiplied in time, building up larger forms, larger patterns, according to the 'phoenix' principle (beginning — drama — end/beginning). Among others, there are two approaches to these concepts: *action* (praxis) and *meta-action* (metapraxis). *Action* (praxis) determines the multiplication of material through the manipulation of patterns, and this includes the formal processes ranging from elementary types of multiplication (repetition) to more complex types involving simultaneous permutations of various factors. *Meta-action* (metapraxis) is concerned with reaching out beyond 'action,' and this leads to PROTO-PERFORMANCE: the performance of 'master-patterns' lying outside time, but which provide the 'model' for patterns in time. There is a connection here with central 'events' in myth: a 'timeless' word, gesture, or drama lying within the centre around which time revolves, as it were, spinning similar events in the environment and in history, proliferating patterns in time. The works written before 1964 correspond more or less to the action approach, while the meta-action approach begins with *Mysterion* in 1965 and extends up to the present."

SOURCE

Music of the Avant-garde, 1966–1973

Edited by **LARRY AUSTIN** and **DOUGLAS KAHN**

MANAGING EDITOR Nilendra Gurusinghe