

Initial Planning and Potential Methodologies

Oiseaux Exotiques for piano solo and small orchestra (1956)

Score uses a specific instrument layout and considers the role of **acoustic space** (though in a fairly philosophical and metaphorical manner). Preface offers an expansive list of birdsong quoted within the piece. The percussion uses Hindu and Greek Rhythms:

Hindu Rhythms:

- A. Decî-Tâlas from the Çarngadeva system:
Nihçankalîla, Gajalîla, Lakskmîça, Caccarî, Candrakalâ, Dhenkî, Gajajhampa.
- B. Carnatic Theory:
Matsya-sankirna, Triputa-Mishra, Matsya-Tishra, Atatâla-Cundh

Greek Rhythms:

- A. Composed feet or metre: Dactylo-epitrite.
- B. Lines of composed metre: Iambelegiac
- C. Logoedic lines: Asclepiad, Sapphic, Glyconic, Aristophanic, Phalecian, Pherecratian

Quatuor pour la fin du temps for violin, clarinet, violoncello and piano (1940-41)

- A. Palindromic (non-retrogradable) rhythms borrowed from Hindu music (Greek literature/song form) and treated in diminution and augmentation.
- B. Modes of Limited Transposition (all palindromes) – eternal modes ...
- C. Rhythm without meter (potential for senza misura) and additive rhythms (phrases)
- D. Time, rhythm, eternity, space and distance ...
- E. Theological context and spiritual connotations ...
- F. Eight movements (subtitles of movements provide context) ...
- G. Two layers for representation of time: Eternal modes and unmeasured rhythm ...
- H. Thematic writing and extended melodic contour (register and timbre) ...
- I. Use of vagrant, ambiguous and extended harmonies ...
- J. Birds and angels – birdsong (I and III) ...
- K. Glissando, string harmonics, echoes, imitations and trills create the textural birdsong within the 1st movement ...
- L. Monophony (solo), Monophony (tutti unison and octave), Homophony (vertical harmony all moving together), Polyphony (melody and accompaniment), Polyphony (counterpoint and canon), Heterophony (multiple variations of melody – not used in Messiaen's quartet, but also a term used to describe textures where the instruments play individual rhythms) ...

Definitive Notes

Pitch organisation and Palindromes

- i. All AITN chords are symmetrically inverted creating a self-contained palindrome.
- ii. The SI AITN row can also be symmetrically inverted, which creates potential for palindromes within palindromes (or extended palindromes) ...
- iii. AITN chords 1, 3, 58 and 60 contain the All Triad Hexachord (ATH).
- iv. The ATH 6z17: 012478 inverts to 012478 and is a self-contained palindrome ...
- v. The ATH (012478/014678) subsumes the All Interval Tetrachords (AIT) 4z15: 0146/0256 and 4z29: 0137/0467 ...
- vi. AIT 0146 and 0137 invert to 0146 and 0137, both self-contained palindromes ...
- vii. The parent hexachords for SI AITN 1, 3, 58 and 60 (6-1, 6-14 and 6-32) all reproduce the same chords through both inversion AND complement and are therefore combinatorial and all self-contained palindromes with potential for palindromic cycles and rotating pitch content.
- viii. The Dorian mode inverts upon itself to create the same Dorian mode and this is unique within the modal/tonal system (see modal inversions PDF). This 'natural' palindrome should be employed within the pitch organisation ...
- ix. The 'cycle of fourths' is a chromatic (twelve-tone) consonance; it is an equidistant intervallic palindrome with connections to the concept of eternity (eternal time) and parallels with Messiaen's 'eternal modes' (modes of limited transposition).
- x. The whole-tone scale (Messiaen Mode I) is also an equidistant intervallic palindrome ...
- xi. Hexachord 6-32 (024579) has Tonal (Major) and modal (Mixolydian) origins and also contains all of the prime notes for the *Ensuen* melody (E Mixolydian) ...
- xii. Reflections of any rhythm within the score will produce a non-retrogradable (palindromic) rhythm and sub-components could contain micro palindromes (internal mirror reflections) ...
- xiii. Chaotic pairing (attractors and distractors) is a way of establishing timbral palindromes (and mirror reflections of register) within micro and macro form.
- xiv. A simple A – B – A structure is an obvious palindrome, with almost infinite variations upon this concept available ...
- xv. The form could also be palindromic in proportion ...
- xvi. Palindromic tempo – proportional relationships – metric and pulse modulations all seem in keeping with the context of eternal time within the Messiaen quartet.
- xvii. Refer to Palindrome Pitch Organisation Document ...