

## **Acoustic Composition 14**

### **Palindrome Triptychs – Part Two (2017)**

(Ultima Thule)

Three Movements for violin, clarinet, violoncello and vibraphone

This work was initially conceived in reaction to a commission from Royal Liverpool Philharmonic (RLPO) concert pianist Ian Buckle for *The Pixels Ensemble* on the premise that 'it would be good if the music could refer to the techniques of Olivier Messiaen and be suitable for a Remembrance Day Centenary recital featuring *Quatuor pour la fin du temps* (Quartet for the End of Time)'.

*The Palindrome Triptychs – Part Two* is a complete piece in its own right, but is also part of a planned series of three works, each in three movements (triptychs).

The scores pay homage to the palindromic techniques of Messiaen in the macro-design of the series as a whole and through the distribution of form, rhythm and pitch organisation in each of the three triptychs: A triptych of triptychs.

### **Method and Process:**

Messiaen's Modes of Limited Transposition (all symmetrical palindromes) were taken as a starting point for compositional planning. See *Palindrome Triptychs Pitch Organisation* (PDF) ...

Apart from the single note (unison), the interval (the space between two notes) is the smallest pitch palindrome. There are six interval-classes and when used in multiple, they all complete an equidistant palindromic cycle.

Class 1 and 5 are notable in the fact they cycle through the total chromatic before they repeat any notes. Class 1 will result in a row of total dissonance (chromatic octave) and Class 5 results in twelve-tone consonance (cycle of fourths/fifths).

Class 2 produces a six-note equidistant whole-tone scale, Class 3 results in a four-note equidistant diminished 7<sup>th</sup> chord, Class 4 results in a three-note equidistant augmented triad and Class 6 simply produces the two-note interval of a tritone.

The most succinct way of referring to all intervals, interval-classes and 'modes of limited transposition' was to compose with the two All-Interval Tetrachords (AIT) 4-z15 (0146/0256) and 4-z29 (0137/0467). Reminiscent of the Matryoshka Principle (traditional Russian nested dolls design), the composer followed this research strand, exploring palindromes within palindromes: Matryoshka Form and Pitch Organisation ...

The AIT are subsumed within the two All-Triad Hexachords (ATH) 6-z17 (012478) and 6-z17b (014678). The ATH in turn can be found in prime form within the Symmetrically Inverted All-Interval Twelve-Note (SI AITN) Chords: (Elliott Carter numbers) SI AITN 1, 3, 58 and 60: Palindromes within palindromes ...

In addition (and for an alternate soundworld within the available palette), Dorian minor Mode (Heptachord 7-35) was used, as it is the only mode in the tonal system that inverts to itself: a tonal, or 'natural' palindrome. The Dorian minor Mode subsumes the Major Pentatonic Scale (Pentachord 5-35): another 'natural' palindrome:

Palindromes within palindromes, shapes within shapes and patterns within patterns

### **Form:**

*The Palindrome Triptychs* explore mirror reflections of rhythm and palindromic forms (Matryoshka Form) from the micro to the macro via pitch organisation also conceived from the micro to the macro: palindromes within palindromes, combinatorial cells within combinatorial rows.

See *Palindrome Triptychs* Planning and Palindromes (PDF) ...

### **Palindromes:**

A word or phrase, the letters (or components) of which, when taken in reverse order read the same: Running back again ...

Collins English Dictionary 1982

Palindromes are theoretically infinite, both infinitely large and infinitely small. Most people conceive palindromes as symmetrical absolutes that reflect perfect mirror symmetry (mirror opposites, mirror repetition) and read from a central axis expanding outwards on the vertical plane, but true palindromes should expand into panoptic space (360°) or at least into Euclidean space. Palindromes do not always have to be symmetrical and equidistant; they can also be asymmetrical and/or proportional in augmentation or diminution (Golden Ratio, Fractals).

It is well documented that Leonardo Da Vinci often used mirror-writing when annotating his research, but he also employed mirror reflections (parallels) and mirror opposites (inversions) within his art. Hand gestures often define a point of axis, or an 'angle of reflection' for the mirror, and through this, Da Vinci employed alternate reflections (angles and planes) and mirror imitations to produce symmetrical, asymmetrical, parallel (duplicate) and inverted (opposite) palindromes.

As palindromes are theoretically infinite and potentially perfectly proportionate within a panoptic space (eternal universe), it is easy to see why they have long been considered spiritually significant and achieved the status of folkloric religious iconography.

Palindromes are both infinitely large and infinitely small; they are theoretically eternal and timeless.

See *Palindrome Triptychs* Presentation PDF ...

**Contact:**

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