

Pitch Structures in Reginald Smith Brindle's *El Polifemo de Oro*

Sundar Subramanian

British composer Reginald Smith Brindle wrote the solo guitar work *El Polifemo de Oro*¹ in 1956 which is notable for incorporating atonal and serial compositional techniques while remaining highly idiomatic for the instrument. Anton Machleder has discussed the composition as a serial or dodecaphonic piece, claiming that it is the first solo guitar work that utilizes dodecaphony.² While the piece does use relatively free serial procedures, I will argue that this does not explain significant portions of the work, particularly in the third and fourth movements. In fact, major portions of the piece draw on pitch material from outside the 12-tone row matrix and in some ways, the piece is defined by tension between serially-derived material and material derived from (sometimes diatonic) deviations from serial procedures. A discussion more exclusively in terms of set classes that are sometimes but not always associated with subsegments of 12-tone rows will greatly enhance the serial and functional analysis of the piece. This is an aspect of the work that Machleder begins to discuss by considering its use of Z-related tetrachords. I will discuss further how the contrast between thirds (ic3 and ic4) and tritones (ic6) is central to the structure and meaning of the piece.

It may help to compare Brindle's approach to dodecaphony to that in Schoenberg's last work for solo piano: *Klavierstück*, op. 33b. As Martha Hyde summarized in 1993, when discussing Schoenberg's essay "Composition with Twelve Tones":³

It is... misleading to conceive of the basic set as a series of twelve ordered pitches. Rather, it is primarily a series of intervals set forth by twelve ordered pitch-classes... while the pitches of a basic set usually occur in their original order, a similar restriction need not apply among its partitioned segments... In other words, the harmonies of the basic set do not have to occur in a fixed order, but can function independently.⁴

And in fact, when we look at the piano piece, we can see that once a pitch class (pc) is introduced it is often repeated, even before every other pc has been played, also that ostinati are often placed alongside or within rows, and that order is not always rigidly preserved. Serial procedures are thus used in a rather loose fashion within a relatively idiomatic work. In some ways Brindle's approach is even freer. We can see in *Polifemo de Oro* that his extensive knowledge and study of serialism has been put uniquely in service of his deep love for the

¹ Reginald Smith Brindle, *El Polifemo de Oro*, Aldo Bruzichelli, 1963, major recording: Julian Bream, *Twentieth-Century Guitar*, RCA Red Seal LSC 2964, 1967.

² Anton Machleder, "Serialism and Poetry in Reginald Smith Brindle's *El Polifemo de Oro*," *ex tempore: A Journal of Compositional and Theoretical Research in Music*, Vol. IX/1 (Spring/Summer 1998), 1-11.

³ Arnold Schoenberg, "Composition With Twelve Tones" in *Style and Idea*, ed. Leonard Stein, trans. Leo Black, New York NY: St Martin's Press: 1975, 214-249.

⁴ Martha Hyde, "Dodecaphony: Schoenberg" in *Early Twentieth-Century Music*. ed. Jonathan Dunsby, Cambridge MA: Blackwell, 1993, 59.

instrument and its associated idioms. Keeping in mind the quirks of the guitar, its tuning and the limits of the human hand, some voicings are much more feasible and well-suited to the instrument's sonority than others. It appears that Brindle has generally taken these factors into account, sometimes giving them precedence over the restrictions of the serial method.

Brindle wrote in *Serial Composition* that the rules of note repetition are:

1. Notes may be repeated at the same octave pitch, before the next note is played.
2. Two notes may alternate in the form of trills, tremolos, and arpeggio effects.
3. Complete groups of notes may be repeated, especially when set to different rhythms, before proceeding to the next notes of the series. Such a procedure often makes for more coherence at the beginning of a theme, and for a greater sense of finality just before its conclusion. However, such usage is by no means common, and many would condemn it as a traditionalism.⁵

Brindle might have meant by this last comment that this approach to note repetition (which could easily allow for motivic writing) might seem too closely allied to tonal (or otherwise 'traditional') conceptions of 'coherence' and 'resolution' for 'purists.' He clearly distinguished himself from such 'purists,' as we shall see in this piece.

The Row

Machleider identifies the basic row P4.⁶ Row forms used in this piece are P4, P5, P9, I0, I5, RP4, and RI-0 as in Figure 1:

P4:	4	8	5	T	E	2	6	0	9	3	1	7
RP4:	7	1	3	9	0	6	2	E	T	5	8	4
P9:	9	1	T	3	4	7	E	5	2	8	6	0
P5:	5	9	6	E	0	3	7	1	T	4	2	8
I5:	5	1	4	E	T	7	3	9	0	6	8	2
I0:	0	8	E	6	5	2	T	4	7	1	3	9
RI-0:	9	3	1	7	4	T	2	5	6	E	8	0

Figure 1: Row Forms Used in *Polifemo de Oro*

Machleider actually finds P2 rather than I5; the two row forms are combinatorially related, as will be discussed. I believe, however, that the order in I5 is somewhat closer to what is actually found in the work itself. The primary hexachords of the row, E G# F B \flat B D (485TE2) and F# C A E \flat C# G (609317), are both representatives of set class 6-30 [013679]. Machleider claims that the first hexachord is more tonal, centering around E, and that the second is more tonally ambiguous, centering around tritonal harmonies:

These two hexachords seem to have a similar relationship as a tonic and dominant harmony would have in a tonal context (i.e. the restful feel of the first hexachord in contrast to the unrest or tension of the second.)⁷

⁵ Reginald Smith Brindle, *Serial Composition* (Toronto, ON: Oxford University Press, 1966): 29.

⁶ Machleider: 3. Rows here are designated here by their form (P - prime, RP - retrograde, I - inversion and RI – retrograde inversion) and their starting pitch in numerical (plus t/e) notation (C=0, C#/D flat = 1, D = 2, ... 9 = A, T, (= ten) = A#/B flat, and E, (for eleven) = B natural).

⁷ Ibid.

I disagree somewhat. Both hexachords contain triads and tritones (and diminished seventh chords). Neither contains any contiguous triads, which only appear when one combines the two forming B D F# (pcs E26) as well as D F# A C (pcs 2609), a ‘dominant seventh’ chord. It is in fact this internal ambiguity within the hexachords that gives the piece some of its distinctive qualities. I do agree, however, that the contrast between thirds and triadic harmonies and tritonal harmonies is fundamental to the harmonic language of the piece.

Inversional hexachordal combinatoriality occurs between P9 and I0 (and subsequently between PT and I1, etc.). As mentioned, I5 and P2 are also combinatorially related and this property is exploited at times in this piece. In the following discussion, each movement will be considered first in terms of its serial structure and then in terms of its set-class structure.

Movement 1

Ordered row forms are followed most strictly in this movement. In Example 1, we see that the movement projects a palindrome-like shape, using row forms P4, I0, RI-0, and RP4. At m. 7, a slight deviation from row order occurs: in the interest of voice-leading, A flat (pc 8, the eleventh tone of RI-0) comes after rather than before C natural (pc 0, the last tone of the row). As well, F natural (pc 5, the fifth tone of the row) is excluded altogether from the statement of RI-0. In m. 3, G (pc 7, the ninth tone of I0) occurs as a harmonic before B (pc E, the third tone of I0) has even been played. This can be explained by viewing it as a continuation of the last tone of P4, lingering in an upper voice while the lower voice has moved on to I0. Likewise, in m. 8, a motive containing the last four tones of RI-0 continues even after RP4 has already begun. These ‘overlapping’ techniques were used in Schoenberg’s work and are important in this piece, and while E natural (pc 4) functions as a quasi-tonal center in this movement, it appears to me that this is due more to the use of repetition and to the ringing of open strings rather than to the harmonic content of the hexachords.

The movement is highly motivic, and as in much idiomatic guitar music, rich chordal sonorities are greatly emphasized. Sometimes they are repeated, sometimes they are rolled, and sometimes they are used percussively as in, for example, a work such as Ginastera’s *Sonata for Guitar*, op. 47 or in flamenco music. While the pitches in these sonorities may be derived from 12-tone procedures, serial analysis does not necessarily seem to help us understand how motives are developed and treated, for which we can now turn to set class analysis for further insight.

In Movement 1 the greatest emphasis is on tetrachordal partitions, and then on pentachordal partitions. The Z-related tetrachords⁸ 4-Z15 [0146] and 4-Z29 [0137] are especially important: 4-Z15 [0146] provides the material for the first and last chords and for one key repeated motive stated first in m.3 and 4-Z29 [0137] provides the material for another key repeated motive stated in mm. 5-6. An interesting property of these tetrachords is that

⁸ To briefly review conventional similarity relations: Z-related sets share the same interval vector, in K-related sets, one set is a subset of another or its complement. Rp sets have the same cardinality (C) and at least one common subset of cardinality C-1, (which is the same as saying that there is one unmatched pc), sets in R0 have the same cardinality but no interval vector entries in common, and in R1 and R2 they share four of their six interval vector entries – R1 if the two dissimilar entries are switched and R2 if they are merely different.

Ben Adagio P4: [485TE2609317] 5-28

4-Z15 *tastiera* 3-11 3-10 4-12

I-0: [08E652T4713] m.3 (m.d.) 4-Z15 III (5-25) *verso il pont.*

RI-0: [93174T256E80] m.5 pc5 missing pont. 4-Z29 4-Z29 *tastiera* (5-31)

II - poco allarg. m.7 RP4: [7139062ET584] (M.D.) (7-20) 4-Z15

pizz. vibrato

m.9 4-12 3-11 4-20

m.10 4-Z15 poco rall. 1 m.

Detailed description: The image shows musical staves from the first movement of 'El Polifemo de Oro'. It highlights various pitch structures and row forms. Row form P4 is shown in measures 4-Z15 through 4-12, featuring 'tastiera' (finger technique) and dynamic markings like 'mf' and 'p'. Row form I-0 is shown in measure m.3 with dynamics '(m.d.)' and 'verso il pont.'. Row form RI-0 is shown in measure m.5 with the note 'pc5 missing'. A secondary row form, RP4, is shown in measure m.7 with dynamics '(M.D.)'. Measure m.9 features a bracketed section labeled 4-12, 3-11, and 4-20. Measure m.10 concludes with a dynamic 'poco rall.' and a measure ending '1 m.'

Example 1: *Polifemo de Oro* Movement 1 with Row Forms and Set-Class Structure

Reginald Smith Brindle EL POLIFEMO DE ORO © 1982 by Schott & CO. Ltd., London All Rights Reserved Used by permission of European American Music Distributors LLC, sole U.S. and Canadian agent for Schott & Co. Ltd., London

their interval class vectors are <111111>, meaning that they contain every interval class without being richer in any one than another. This quality is exploited. The first and final chords are complex and ambiguous owing to this characteristic of the tetrachord 4-Z15 [0146]. Interval classes from lowest to highest are the major third, minor third and perfect fourth (interval classes 4, 3, and 5) with the tritone (ic6) between the outer two pitches and whole tones and semitones between alternating pitches (ic1 between the bass and alto voice and ic2 between the tenor and soprano voice]. The range between the lowest and highest pitch of these chords is two and a half octaves. In contrast, the motive in m. 3 and m. 8, also based on 4-Z15 [0146], has a range of 10 semitones and consists of a comparatively simple (although clearly non-tonal) alternation of the ‘consonant’ harmonies of ic4 and ic5 (major third and perfect fifth in this case). Both unity and variety are provided by the use of the same tetrachord. If we look at the motive again, we can see that the upper voice moves by ic6 (tritone) while the lower voice moves by ic3 (minor third), which is key to the distinctive sound of the figure. The motive based on 4-Z29 [0137] consists itself of an alternation of ic6 and ic3, which provide alternating characters of tension and comparative repose. We find that the individual voices move by ic4 and ic2 (major thirds and major seconds).

A third motive (m.3) is based on set class 4-12 [0236] and is varied when it is restated (m.9). This set class’s similarity relationships with 4-Z15 [0146] and 4-Z29 [0137] are shown in Figure 2. Interval classes 3 and 6 (the minor third and tritone) are clearly important in the motive: in the first statement, the first two intervals are ic3 and ic6. In the inverted order, these are the last two intervals in the second statement of the motive.

The diatonic set class of 3-11 [037] is stated significantly as a simple B minor chord in mm. 1 and 10. While this does seem to provide a great deal of contrast with the surrounding and other post-tonal sonorities in the movement, it is worth noting that 3-11 [037] is embedded in 4-Z29 [0137] and is in a K-relation with all the important tetrachords used in the movement. It does therefore fit within the overriding set-class organization of the movement. Also, the exact pcs used in the statement of B-D-F# are found as a contiguous trichord in P4. It is worth noting both that this triad is always juxtaposed with set classes that contain tritonal harmonies and that the general juxtaposition of thirds and trichords with tritones is central to the movement as well. On a larger scale, 3-11 [037], 4-12 [0236], 4-Z15 [0146], and 4-Z29 [0137] along with pentachords 5-28 [02368] and 5-31 [01369] are embedded in 6-30. This may be part of what gives the movement unity in its intervallic construction.

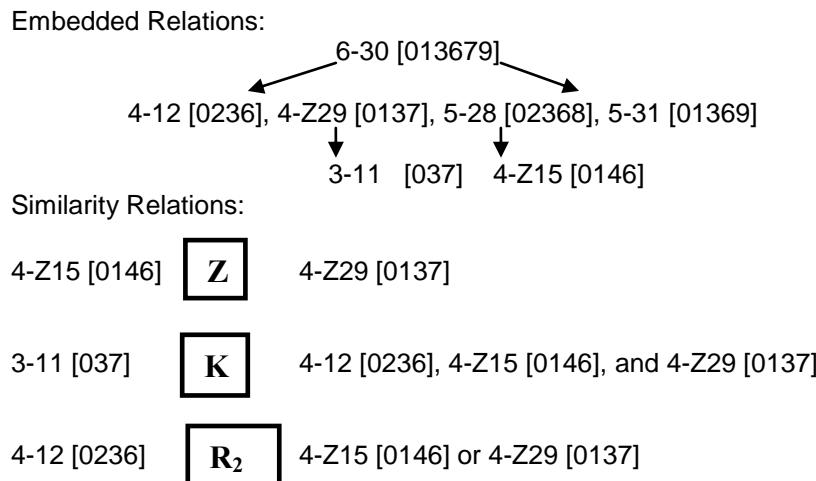


Figure 2: Important Set-Class Relations in First Movement of *Polifemo de Oro*

Movement 2

Row forms used in this movement are P9, I5, and P4. Order is followed much less strictly than in the first movement. In Example 2, we can see that in the first statement of P9, the second tone comes before the first and the ninth before the eighth. Then, in the first (altered) statement of I5, pitches are introduced in the following sequence: second, first, third, fifth, fourth, sixth, seventh, ninth, eighth, eleventh, tenth, last. As Hyde observed in Schoenberg, hexachords are preserved here but order within them is not. This freer approach to pitch order within the row continues throughout the movement; in the passage marked *Tempo I* at m. 45, we find the first hexachord of P9 (A C# B♭ D D# G B) if we exclude the intervening harmonics in the first bar (m. 52) marked *Piu lento*.

It is interesting to compare the extensive first ending (mm. 16-25) to the repeat with the second ending. The second ending picks up where m. 15 leaves off by completing I5 starting from tones eight and nine (out of order, of course); the first ending also completes I5 within 5 bars. We then begin to see the pitches from P4, beginning with the fourth tone. In order to find tones 1 to 3 of P4, we need to go back to m. 19 where the second-to-last chord (E-A♭-F) contains all three of these pitch classes; thus, we have another case of 'overlapping.' The only statement of P4 (within a movement dominated by P9 and I5) appears here, at a point of tension in the opening – the interruption of the ostinato – leading to a point of further tension after the statement of P4 has been completed and where Brindle deviates from 12-tone structuring in a series of minor thirds and tritones exterior to the row matrix before returning to the opening P9. 'Overlapping' occurs again in the fifth measure of the second ending when I5 is restated and its first and second tones are introduced before the previous row form has reached its last tone (m. 31).

Repeated segments, especially two-pitch segments, produce ostinati in essentially idiomatic fingering patterns. Brindle thus emphasizes the distinct characters of specific partitions of the row by juxtaposing them with other portions of the row. In m. 40, however, we are again no longer dealing with row forms or even with any obvious sub-segments from the row matrix. Instead, we have a descending pattern of three similar figures, all of which are defined by the trichord 3-3 [014]. Set class 3-3 does come up three times when we partition the row. It is interesting that we also get 3-3 three times in succession at this point. As this follows the only full statement of 6-30 in the movement, perhaps a certain resolution is achieved in this statement of the primary hexachordal set class. Moreover, with this second deviation from the row matrix, we also find a significant change in the character of the movement.

Looking at Example 2, we can see that the movement is largely governed by trichords. What is especially significant is the tension and contrast between trichords with thirds, and trichords with tritones i.e. between 3-3 [014] and 3-5 [016], both of which are trichordal partitions of the basic row. As shown in Figure 3, the two set classes are somewhat dissimilar in important ways: 3-3 [014] contains no tritones (ic6) while 3-5 [016] contains no thirds (ic3 and ic4). These characteristics are opposed to each other here. The movement begins and ends with 3-3 [014], which is used frequently throughout but uses 3-5 [016] at several points of great tension. The tritone (ic6) is emphasized when 3-5 appears and ic3 and ic4 are emphasized when 3-3 appears. Both trichordal set classes contain ic1, which is used as a connecting factor, to give unity. These points may be best illustrated in mm. 11-12. The motive based on 3-5 is introduced at a moment of tension, resolved when the lower voice moves from E to G and the motive changes instead to one based on 3-3. Interestingly, if we return to the passage at mm. 37-40 page, after departing from the material

P9: [1T347E52860]

Allegretto

m.5

m.10

I5: [514ET7390682]

m.15

P4: [485TE2609317]
first three pitches overlapped
with last three pitches of I5

m.21

I5: continued: -90682]

m.27

I5/ I5 overlap
pos. nat.

Example 2: *Polifemo de Oro* Movement 2 with Row Forms and Set-Class Structure

Reginald Smith Brindle EL POLIFEMO DE ORO © 1982 by Schott & CO. Ltd., London All Rights Reserved Used by permission of European American Music Distributors LLC, sole U.S. and Canadian agent for Schott & Co. Ltd., London

m.32

m.37

m.41 Lento

m.45 Tempo I.

m.50 Più lento

Example 2: cont'd

in the row matrix, m. 40 (where we have three instances of 3-3) serves to prepare the listener for the sonority based on 5-30 in m. 41. Set class 5-30 [01468] is not a partition of the basic row but it contains both 3-3 and 3-5 as embedded sub-set classes and thus serves an interesting function as a type of unifying point of resolution that is also marked by its absence from the row matrix. 5-30 is not even embedded in the primary hexachord 6-30, which gives the sonority an especially distinct character in the context of the movement.

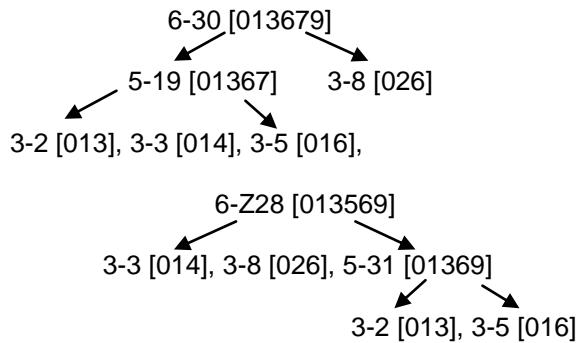
3-2 [013] is another important set class in the movement. Also not a partition of the basic row, it is embedded twice within 6-30, the primary hexachord. Since it shares the semitone and minor third with 3-3 [014], it is often used transitionally in connection with 3-3. The important trichords 3-2 [013], 3-3 [014], 3-5 [016], and 3-8 [026] are all embedded in 6-30.

We now consider the passage beginning with the harmonics in the first *Piu lento* bar (m. 48). As mentioned earlier, if we are to understand the last two systems of the movement in terms of the first hexachord of P9, we need to exclude at least the pcs in harmonics (B, E, G, pcs E, 4 and 7) in this bar. The measure itself is distinct in timbre, dynamics, and tempo and in its pitch structure as well, representing a disruption in the row

statement. If we include the first D# in the following measure (which is clearly part of the ascending line), we can group all of the pitches within hexachord 6-Z28 which is embedded in the basic row and, in fact, contains all the important trichords in the movement as embedded sub-set classes. Thus some sense of unity is preserved in this deviation and the passage, of course, helps to prepare the 3-3 at the conclusion of the movement.

While trichords are emphasized here more than tetrachords or pentachords, the contrast between thirds and tritones remains highly important. The most significant difference between this movement and Movement 1 is the use of material from outside the row matrix to provide contrasts with the row-based material, which are then resolved. This technique will become increasingly important in the remaining movements.

Embedded Relations:



Similarity Relations:

3-3 R_p 3-5 (2-1 is a shared subset)

3-2 also shares 2-1 and 2-3 with 3-3

Figure 3: Important Set-Class Relations in Second Movement of *Polifemo de Oro*

Movement 3

There is much to discuss here. While the organization of this movement appears to combine elements from both of the first two movements, it is more athematic than either of them and appears to raise questions that will perhaps only be answered in the final movement. The row forms used are I5, I0, and the first hexachord of P9. Especially at the beginning of the movement, ordered row forms appear to be followed more closely than in the previous movement, without much repetition of notes until m. 5. In fact, the relative absence of note repetition is partly what gives the movement its athematic character.

The first statement of I5 follows row order strictly. Aside from the introduction of the second tone before the first, the pitch classes in the first statement of I0 are also introduced in order, assuming that it begins with A♭ in m. 3 (pc 8, the second tone of the row). Here, however, we begin to see some note repetition with C♯ and D♯ (pcs 1 and 3) repeated as a dyad in mm. 5 and 6. The second statement of I5, beginning in m. 6, also follows row order strictly except for the introduction of A (pc 9, the eighth tone of the row) as a harmonic before E♭ (pc 3, the seventh tone of the row). Similar to the G natural in m. 2 of the first movement, this can be explained if we think of the A natural as the last tone of I0, lingering in a

The musical score consists of five staves of music, each with a different key signature and time signature. The first staff starts with a treble clef and a 3/4 time signature, followed by a bass clef and a 2/4 time signature. The second staff starts with a treble clef and a 2/4 time signature, followed by a bass clef and a 2/4 time signature. The third staff starts with a treble clef and a 2/4 time signature, followed by a bass clef and a 2/4 time signature. The fourth staff starts with a treble clef and a 2/4 time signature, followed by a bass clef and a 2/4 time signature. The fifth staff starts with a treble clef and a 2/4 time signature, followed by a bass clef and a 2/4 time signature.

Annotations on the score include:

- Largo**: Indicated at the beginning of the first staff.
- I5: [514ET7390682]**: Row form I5 is indicated in the first staff, m.5, with a circled 3-5 pattern.
- I-0: [08E652T47139]**: Row form I-0 is indicated in the first staff, m.5, with a circled 5-Z18 pattern.
- III**: Indicated in the first staff, m.5, after the first row statement.
- m.5**: Measure number.
- L-3-3**: Measure duration.
- (3-8)**: Measure duration.
- 5-Z18**: Set-class structure.
- 3-5**: Set-class structure.
- 4-27**: Set-class structure.
- 4-Z15**: Set-class structure.
- 4-Z29**: Set-class structure.
- P9: [91T347E52860]**: Row form P9 is indicated in the second staff, m.9, with a circled 4-Z29 pattern.
- first hexachord**: Description of the first six notes of P9.
- m.9**: Measure number.
- 4-Z29**: Set-class structure.
- 3-3**: Set-class structure.
- pont....**: Performance instruction.
- 4-18**: Set-class structure.
- 4-Z29**: Set-class structure.
- 3-5**: Set-class structure.
- pont....**: Performance instruction.
- 4-Z15**: Set-class structure.
- m.13**: Measure number.
- I-0: [08E652T47139]**: Row form I-0 is indicated in the third staff, m.13, with a circled 4-18 pattern.
- 3-5**: Set-class structure.
- 4-27**: Set-class structure.
- m.17**: Measure number.
- 6-32**: Set-class structure.
- 3-3**: Set-class structure.
- 3-3**: Set-class structure.
- 3-3**: Set-class structure.
- 3-2**: Set-class structure.
- rall.**: Performance instruction.
- 6-32**: Set-class structure.
- 6-30**: Set-class structure.
- 6-32**: Set-class structure.
- al tempo VERGOL ROSA**: Performance instruction.
- m.40**: Measure number.

Example 3: *Polifemo de Oro* Movement 3 with Row Forms and Set-Class Structure

Reginald Smith Brindle EL POLIFEMO DE ORO © 1982 by Schott & CO. Ltd., London All Rights Reserved Used by permission of European American Music Distributors LLC, sole U.S. and Canadian agent for Schott & Co. Ltd., London

lower voice. The only repetition here is of the first chord (in 16th-note triplets), containing the first four tones of the row. Row order is followed less strictly, however, in tones 1 through 7 of P9 where the third tone only appears after the seventh tone has already been introduced. There is a great deal of repetition at this point, with dyads based on the first and second tones (A-C#) and the fourth and fifth tones (E-D#) repeated and contrasted with each other. The appearance of the low F# in m.9 cannot be easily explained by the row matrix and the series dissolves at this point, without sounding D, G# and C (the ninth, tenth and last tones). The following statement of I5 follows row order strictly however, and the final statement of I0 generally follows row order in the introduction of tones except for two cases: the tenth tone (C#) appears after the eleventh (D#) and F natural (the fifth tone) appears in a chord along with the first two tones at the very beginning of the row statement. The F natural and the C# that precedes it (m. 11) are hard to explain in terms of the matrix; the same two tones appeared in the same order in m. 3 between the first statements of I5 and I0 and they are respectively the second and first tones of I5, so perhaps one could think of them as a repetition of the first dichord from the row before a new row form is stated.

It is after this final (altered) statement of I0 in m. 16, that we begin to find significant material that dodecaphony cannot explain. Prepared by a very deliberate chromatic ascent (D-D#-E-E#)⁹ a chord appears in m.16, distinct in its rolled arpeggiation and in 5 of its 6 pitches being in harmonics. It is significant up to the close of the movement where it is repeated four times, and it is defined by set class 6-32, a hexachord which is not a partition of the basic row but rather a diatonic hexachord, essentially a circle of fifths which includes all of the open-string pitch classes of the guitar. Moreover its consonant, calm and ‘dreamy’ character (enhanced in harmonics) echo those heard fleetingly at the end of the second movement and it offers a striking contrast to the atonal, largely serial context of this movement, and sets up a tension that needs to be resolved. That such an important sonority cannot be explained at all by dodecaphony points out a major weakness in any purely serial conception of this piece.

The significant Z-related tetrachords from Movement 1 and the significant trichords from Movement 2 are all used in this movement; 3-3 and 3-5 are opposed again: for example, the first phrase begins with a statement of 3-3 which is answered by a phrase based on 3-5 and this happens again in mm. 10-11. 4-Z15 [0146] and 4-Z29 [0137] are used in important repeated sonorities where they are sometimes placed next to each other. Contrasts between 3-3 [014] and 3-2 [013] are also exploited in the movement, with emphasis on ic4 (the major third, appearing in 3-3 but not in 3-2) and ic2 (the major second, appearing in 3-2 but not in 3-3).

It is interesting that *none* of these set classes (or any other significant set classes identified in the movement) are embedded in 6-32. Set class 6-32 therefore offers maximal contrast with its surrounding material. As Figure 4 shows, it is highly dissimilar to 6-30 (the primary hexachord of the basic row) and this dissimilarity is emphasized when the first statement of 6-32 is juxtaposed with a statement of 6-30 (and then one of 3-3). The form of 3-11, however, that appeared in Movement 1 (the B minor chord) is literally included in this form of 6-32, providing a reference between these movements as well as clarifying the meaning of the B minor triad as a foreshadowing of the tension that has now appeared between serial and diatonic worlds!

Embedded Relations:



Contrast Relations:

6-30<224223 vs. 6-32<143250> (IC 5, IC 6)

Figure 4: Important Set-Class Relations in Third Movement of *Polifemo de Oro*

⁹

The chromatic ascent through m.14 and 15 was actually initiated by the isolated and out-of-row-order C# at the end of m. 11, left hanging in the high register until connecting to the D naturals of m.14 in the motion to the high F#.

Another important set class in this movement, 5-Z18, is used in two melodic lines in mm. 1-4 of the movement. This set class is interesting in that it contains 3-2, 3-3, and 3-5 as embedded subsets but does not contain any of the significant tetrachords in the movement. It contrasts significantly with the following 4-27.

While contrasts between thirds and tritones do not appear quite as central to this movement as to the first two, the movement's organization still appears to be conceived partly in terms of set-class organization. The use of material - especially diatonic material - from outside the row matrix has become quite significant, creating tension that will be resolved in the finale.

Movement 4

Movement 4 presents a highly thematic, rhythmic, dance-like finale, in strong contrast to Movement 3. It is probably the most idiomatic of the four movements, with attractive popular nuances suggestive of flamenco and jazz. Towards the end of the movement, we find a recapitulation of material from Movement 1.

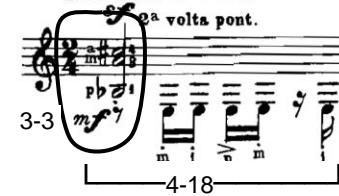
Initial statements of P9 and I5 are the only row forms used in the movement. In P9, the fifth tone comes before the fourth and is repeated. Otherwise, the row order is preserved without note repetition. Despite some repetition, row order is also preserved in the introduction of tones in I5; however, the last tone, D natural, is absent. A motive, appearing first in m. 3, alternates a dyad (C-F#) based on the last two tones of P9 with a dyad based on the first two tones of I5 (D \flat -F) over a static E natural, and is repeated in m. 4 thus creating another instance of 'overlapping.' After one statement of each row (neither of which is strict), row forms are not used in the remainder of the movement. Instead, motivic material that was introduced in these initial statements is developed and recombined, along with other material from outside the row matrix.

The movement is highly motivic. Even without the written repeat, nearly all the musical material until the coda is repeated at some point.¹⁰ Of course, part of the coda is itself a recapitulation of material from Movement 1. We see moreover in this movement some of the trichords from Movement 2, the Z-related tetrachords from Movement 1, and the 6-32 hexachord from Movement 3. 3-3 [014] is used in the first chord of Movement 4, in the last chord before the coda, in the repeated chord in m. 5, and also in mm. 15-16 at the return to the opening idea. It is also important in first measure of the *Molto vivo* (m. 36) and in the transitional figure in the first ending (also the beginning of the second ending). Here, however, it is not primarily placed in opposition to 3-5 [016] or 3-2 [013]. 4-Z15 [0146] and 4-Z29 [0137] are also used a great deal, often in transitional figures, as is 4-19 [0148], another tetrachordal partition of the basic row. The 6-32 hexachord appears in mm. 12-13 and 28 in the same form that it did in Movement 3 but here it appears to have been more integrated into the fabric of the music. It does provide some contrast but it is not as striking as it was in Movement 3.

One important, non-dodecaphonic figure in this movement is based on the diatonic set class 7-35, essentially a Mixolydian mode. This figure appears in varied forms in m. 11, m. 26, and mm. 32-34 of the coda (the three measures marked *Ben Adagio*). This is the most obvious popular nuance in the piece and it is followed by 6-32, another diatonic set class. The appearance of more diatonic material in a central role in this movement further

¹⁰ The A section of the A/A + coda form of the movement is itself a small binary AB/AB structure.

P9: [91T347E52860]

Ritmico e Vivo

I5: [514ET7390682]



m.4



4-12 3-3 4-19 3-5

m.7



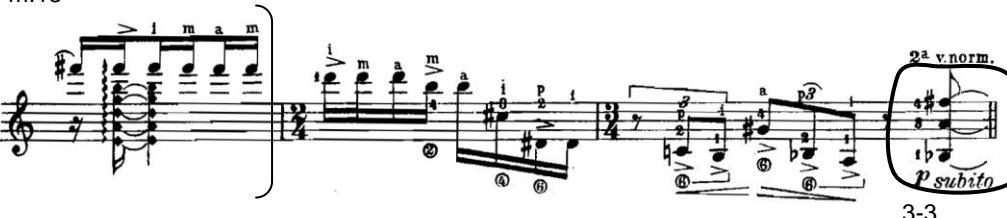
4-Z29

m.10 4-23 4-16 4-23 4-16 4-23



6-32

m.13



3-3

m.16



4-8

4-8

m.19



4-8

3-11

4-19

Example 4: Polifemo de Oro Movement 4 with Row Forms and Set-Class Structure

m.22

4-Z29

4-16 4-23

4-16 4-23

5-29

7-35

4-16 4-23

6-32

3-3 3-3

3-3

Ben Adagio (come il 1^o mov.)

4-Z15

dim. i p

4-12

4-Z15

4-12

3-11

4-20

Molto vivo

3-3

4-19

III

7-35

4-23

m.38

4-16 4-23 etc. *cedendo*

poco a tempo

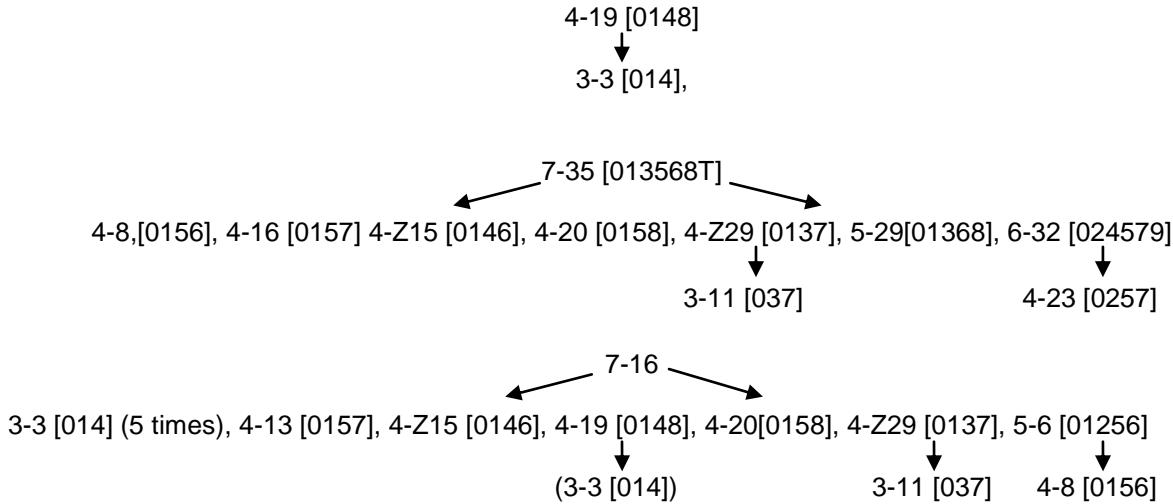
5-29

Example 4: cont'd

im. 45

p

fff *pont.*

Embedded Relations:Similarity Relations:

Contrast: 7-16 <435432> 7-35 <254361> ic 5, set classes 3-3, 6-32

Figure 5: Important Set-Class Relations in Fourth Movement of *Polifemo de Oro*

clarifies the introduction of a diatonic set class towards the end of the previous movement; in this way also, the B minor chord, 3-11 [037] appears in the coda of Movement 4, reinforcing its literal inclusion in the preceding form of 6-32. Set classes 3-11 [037] and 6-32 are both embedded in the Mixolydian 7-35, along with a number of other set classes in the movement, a significant change from Movement 3 where 6-32 excluded all the other significant set classes in the movement. In addition to containing the set class 6-32, the new diatonic set class, 7-35, contains a number of row partitions serving to unify the serial and diatonic ‘worlds’ while also bringing an idiomatic element into the piece.

An important motive in the movement is introduced for the first time in m. 10 and returns in a modified form in mm. 24-25 and again towards the end of the coda. It is based on an alternation between set classes 4-16 and 4-23 by changing the lower voice beneath their quartal components. These set classes were not prominent in the piece before; neither is a partition of the basic row although 4-23 is embedded in 6-32 and 7-35. The motive could thus be seen as a case of alternation between the serial and diatonic nuances, setting up a tension that is resolved when we move to 7-35 after the first two statements of the motive, and when we move to E natural (pc 4), the quasi-tonal center of the first movement as well as of this movement, in m. 16 and especially at the end of the piece.

Another important septachord in this movement is 7-16, introduced first in m. 2 and returning in m. 16. This septachord is quite dissimilar to 7-35, as shown in Figure 5, and provides contrast. Importantly, it is rich in 3-3 subsets, which are excluded from 7-35. An obvious example of the continued contrast between thirds and tritones is provided by the motive in mm. 3 and 4, which recurs throughout the movement, where ic6 (the tritone)

moves to ic4 (the major third). The recurring motive from m. 10 gives a further example of this and if we consider the lowest interval in the chords, it very clearly alternates between ic3 (the minor third) and ic6 (the tritone). Additionally, as Brindle moves from the popular nuances of 7-35, ascending entirely by ic2 or ic3 (major seconds or minor thirds) to the sonority based on 6-32, we can see a strong movement by ic6, C-F# (mm.11-12 and 27).

The fascinating final movement of *El Polifemo de Oro* thus reconciles tensions on many levels, some obvious but others more subtle. Although the work closes with a typical rounding off in the return of its very opening idea, it encloses an underlying long-range ABAB - slow/fast, slow/fast design in which the B/fast movements share a similar aab structure. Most intricate is perhaps the resolution of the tensions between serial and diatonic materials introduced in the course of the piece incorporating new idiomatic harmonic elements, as well as the integration of the driving forces of the thirds and tritones on the most basic intervallic levels. Finally, the movement provides the ultimate integrative resolution of the pitch materials of the work in its tonal centering about pc4 (E natural).

Works Cited

- Bream, Julian. *Twentieth-Century Guitar*. RCA Red Seal LSC 2964, 1967.
- Brindle, Reginald Smith. *El Polifemo de Oro*. Aldo Bruzichelli, 1963.
- Brindle, Reginald Smith. *Serial Composition*. Toronto, ON: Oxford University Press, 1966.
- Hyde, Martha. "Dodecaphony: Schoenberg." In *Early Twentieth-Century Music*, edited by Jonathan Dunsby. Cambridge MA: Blackwell, 1993.
- Machleder, Anton. "Serialism and Poetry in Reginald Smith Brindle's *El Polifemo de Oro*," *ex tempore: A Journal of Compositional and Theoretical Research in Music*, Vol. IX/1 (Spring/Summer 1998): 1-11.
- Schoenberg, Arnold. "Composition with Twelve Tones." In *Style and Idea*, edited by Leonard Stein, translated by Leo Black. New York NY: St Martin's Press: 1975.