



UNIVERSITY OF
CALIFORNIA PRESS
JOURNALS + DIGITAL PUBLISHING

Society for Music Theory

Pitch Organization in Debussy: Unordered Sets in "Brouillards"

Author(s): Richard S. Parks

Source: *Music Theory Spectrum*, Vol. 2 (Spring, 1980), pp. 119-134

Published by: University of California Press on behalf of the Society for Music Theory

Stable URL: <http://www.jstor.org/stable/746183>

Accessed: 11/10/2008 17:23

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=ucal>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit organization founded in 1995 to build trusted digital archives for scholarship. We work with the scholarly community to preserve their work and the materials they rely upon, and to build a common research platform that promotes the discovery and use of these resources. For more information about JSTOR, please contact support@jstor.org.



University of California Press and Society for Music Theory are collaborating with JSTOR to digitize, preserve and extend access to *Music Theory Spectrum*.

<http://www.jstor.org>

Pitch Organization in Debussy: Unordered Sets in “Brouillards”

by Richard S. Parks

This paper results from a broad and ongoing investigation into the nature of pitch organization in the music of Claude Debussy.¹ It seeks primarily to uncover information about the relationships between pitch resources and compositional processes applied to them in a single work by Debussy and, secondarily, to demonstrate that certain concepts of pitch-set theory may find advantageous application in his music.

A great many studies of Debussy’s music appear to have had, as their general objective, the intent of characterizing pitch elements thought to be significant in ways which would (1) permit comparison with similar elements found throughout his work, (2) identify fairly precisely, pitch and intervallic characteristics of these elements which the analysts considered important, and (3) suggest connections with other, earlier composers.

I refer to the work of authors such as René Lenormand² and Laurence David Berman,³ as well as less theory-oriented works

such as E. Robert Schmitz’s essays on the piano pieces.⁴ All share a common tendency to characterize Debussy’s music through the apparatus of harmonic theory⁵ so that, for example, one finds reference to such things as “modal progressions,” “added-note” and “dominant-eleventh” chords, “parallel chord-successions,” and “unresolved dissonances.” Elements which do not fall within the confines of harmonic theory were described and labeled in ways which sought to categorize them as foreign to that theory, but nonetheless within the purview of a more general speculative theory which could embrace, as possibilities for pitch resources, elements found in the music of popular, folk, and non-Western cultures. “Pentatonic,” “whole-tone” and “gypsy” scales have been cited as “exotic” infusions into Debussy’s otherwise familiar vocabulary of pitch resources. Brăiliou’s essay on pentatonicism typifies this approach.⁶

⁴E. Robert Schmitz, *The Piano Works of Claude Debussy* (1950; reprint ed., New York: Dover Publications, 1966).

⁵The term “harmonic theory” refers here to the corpus of treatises, texts, and essays—in all its diversity—which purports to deal primarily with music from the so-called period of common practice, by defining and seeking meaning in the nature of chords and their contexts in that repertory.

⁶Constantin Brăiliou, “Pentatony in Debussy’s Music,” in *Studia Memoriae Belae Bartok Sacra*, 3d edition (London: Boosey and Hawkes, 1959). pp. 351–98.

¹Research for this study was assisted by a grant from Wayne State University.

²René Lenormand, *A Study of Twentieth-Century Harmony*, translated by Herbert Antcliffe (1915; reprint ed., New York: Da Capo Press, 1976). Lenormand’s monograph is, so far as I know, the earliest attempt to examine comprehensively and systematically the aspect of harmony in Debussy’s music and to link features deemed innovative with the practices of his predecessors.

³Laurence David Berman, “The Evolution of Tonal Thinking in the Music of Claude Debussy,” 2 vols. (doctoral dissertation, Harvard, 1965).

Such characterizations are valid and useful as far as they go, and they may have been of vital importance to musicians closer to Debussy's time, who were grappling with the novelty of his sound spectrum, trying to place it within their experiential musical world.⁷ There is a limitation to this approach however, as it suggests an arbitrary quality about the composer's process—as though he simply absorbed all these “devices” and poured forth a confusion of harmonic and tonal distortions, contradictions and exoticisms, which need only to be properly identified and labeled to be understood. Such a view is incompatible with this author's perception of the composer's works whom they impress, overall, as coherent, logical and highly organized: as exhibiting economy and selectivity in their pitch resources. Besides, they sound profoundly different from the repertory of Debussy's antecessors, despite the fact that, taken out of context, a large proportion of the sound-elements of his pieces are familiar as constituents of earlier music.

Not all analytical studies of Debussy's music are classifiable with those described above. Studies by Herbert Eimert⁸ and Robert Moevs⁹ are less concerned with “devices” and tonal features, and reveal more about motivic or what might be called cellular aspects of organization. Schnebel's study of “Brouillards” reveals an interest in relationships between pitch organization, the acoustical characteristics of the piano, and timbre.¹⁰

My study follows a less traditional approach and results from

⁷The “message” of Lenormand's treatise is that Debussy's music was “new,” but not altogether new; that his innovations consisted of the manner and extent to which his pitch resources were used, but that the resources themselves may be traced to earlier practice.

⁸Herbert Eimert, “Debussy's ‘Jeux,’ ” translated by Leo Black, *Die Reihe*, no. 5 (1961), 3–20.

⁹Robert Moevs, “Intervallic Procedures in Debussy: ‘Serenade’ from the Sonata for Cello and Piano, 1915,” *Perspectives of New Music*, 8 (1969), 82–101.

¹⁰Dieter Schnebel, “‘Brouillards’—Tendencies in Debussy,” *Die Reihe*, no. 6 (1964), 33–39.

an attempt to identify some of the sources of coherence and economy from a perspective not so strongly referenced to earlier tonal music. One encounters certain sounds over and over in Debussy's music, in many kinds of contexts, and so it seems reasonable to adopt an approach which facilitates identification of, and distinctions between, similar and dissimilar sound-constructs.

While identification of differences between dissimilar elements is not normally problematical, the question often arises whether such elements also share common features (which might help to explain how they contribute to a listener's sense of coherence in a work, even as they manifest its diversity). One may also wonder whether, and to what extent, elements which *appear* to be similar are in fact dissimilar with regard to features which delimit sound-color. Pitch-set theory provides some useful concepts and procedures for coping with these problems.

It may be useful to state certain methodological assumptions which influence this author's way of hearing. First, it is assumed that economy of means is an important constituent in a work of art; the less “things” a piece is “about,” the more easily it may be processed by the listener and the greater its coherence. Second, great works of musical art, while economical, often display a high degree of complexity in the utilization of their limited pitch resources. Thirdly, pitch organization—though it is not the only aspect of a composition nor, indeed, necessarily the most significant aspect—is more important and may be emphasized in analysis, even though it cannot be separated from other aspects.

This study proceeds from a listener's point of view rather from that of the composer. Any speculation regarding Debussy's motivations and intentions always originates from this perspective.

1.

Some definitions and assumptions which obtain for this analysis may be summarized briefly as follows.

Octave equivalence is assumed throughout, so that the term “set” is used to mean “pitch-class set” and, in turn, pitch-class set refers to a group of pitch classes.

Integer notation, in which the twelve pitches of the tempered chromatic scale are numbered in ascending order (with C=0, C-sharp=1, . . . B=11) will be employed frequently. Intervals will often (though not always) be reduced to six octave and inversionally equivalent classes, expressed in semitones.

Sets will be represented in the text and examples in two ways: parenthetically, either as pitch names expressed in integers separated by commas, or as interval-class arrays expressed in integers separated by hyphens.¹¹ (Thus a three-note set comprised of the pitches D–E–G-sharp may be represented either as pitches [2,4,8] or as interval-arrays [2–4–6].)

All sets are unordered; that is, pitch-class order is not considered to affect the identity of a set.

It is assumed that sets retain their identities under the operations of transposition and inversion, and the various transpositionally and inversionally equivalent permutations of a set will be referred to as “set-forms.”

Allen Forte’s list of sets has been employed for the purpose of identifying and naming different collections.¹² In examples displaying sets for reference, sets are arranged in that adjacent ordering within an octave which conforms to Forte’s “Best

¹¹Richard Chrisman, “Describing Structural Aspects of Pitch-Sets Using Successive Interval-Arrays,” *Journal of Music Theory*, 21 (1977), 1–28, describes a number of useful applications for interval arrays in analysis.

¹²Allen Forte, *The Structure of Atonal Music* (New Haven: Yale University Press, 1973), 179–81. I am indebted to this source as a useful and convenient reference for many conceptual and procedural aspects of pitch-set theory invoked in this study.

Normal Order.”¹³ A set-form may appear in either ascending or descending order, whichever arrangement meets the criteria of Best Normal Order. Sets which carry the same label but which appear in opposite order (i.e. one ascending, one descending) are inversionally equivalent.

The selection process by which one decides what shall be considered an analytical object is necessarily subjective. In general, for this analysis, pitches have been grouped as entities on the basis of notational cues, as well as heard cues. I have not attempted to examine every possible combination of pitches, nor even every “important” combination in the pages which follow. I have tried to cite those combinations which exhibit important interrelationships and combine together to afford one view of “what the piece is about.”

The piece which is to serve as a focus for this paper is “Brouillards.”¹⁴

2.

The piece begins with two brief gestures—each of an eighth-note’s duration—which are immediately repeated. Both consist of seven notes: triads in the left hand articulated against arabesque-like four-note figures in the right. (Example 1 shows bars 1–3 with all appropriate sets cited.) The second gesture is a transposition of the first; both are forms of set 7–31. However, the second is not a literal transposition of the first in all its details. The first left-hand triad is a form of set 3–11: the second of set 3–10. The first falling-figure in the right hand is a form of set 4–26: the second of set 4–27. In this way five pitch-class sets of great importance for the piece emerge (Example 2); quietly and with great subtlety, sets 3–11, 4–26, 3–10, 4–27,

¹³Forte, p. 4.

¹⁴Claude Debussy, “Brouillards,” from *Preludes*, Book II (Paris: Durand et Cie., 1913), 1–6.

Example 1

Modéré
extrêmement égal et léger

1 4-26 (10.1.3.6) 4-27 (8.10.1.4) 7-31 (5.4.2.1.11.10.8) 2 4-27 (11.1.4.7) 4-19 (1.2.5.9) (3/8) 4-26 7-31 4-27 7-31 7-32 (0.11.9.8.6.4.3) 4-26 (3.6.8.11)

pp 5 5 5 5 3 3 3 3 5 5 5

3-11 (7.4.0) 3-10 (11.2.5) 3-11 3-11 3-11 3-11 3-10 3-11 (9.0.4)

7-31 (7.6.4.3.1.0.10) 3-11 (2.5.9) 3-11 (4.7.11)

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

Example 2

3-11 (7.4.0) 3-10 (11.2.5) 7-31 (7.6.4.3.1.0.10)

4-26 (10.1.3.6) 4-27 (8.10.1.4)

and 7-31 are exposed and affirmed in the repetition which follows.

The second and third measures contrast with the first, at the same time revealing clues about the subsequent utilization of the five sets and certain properties each possesses. Even the many

subsidiary pitch resources which appear throughout the piece may later be seen to arise, to some extent, from procedures which occur in these measures and to extend these procedures into their own domains.

Measure 2 quickens the tempo of the left-hand chords, presenting three transpositions of set 3–11 (in its inversionally equivalent major and minor triad forms), against a single pitch (D-flat) in the right hand. The coincidence of the D-flat with the third (3–11) chord yields another form of set 4–27, while the same pitch joined to the fourth chord produces a new set (4–19). The third bar contains two forms of 3–11 and one of 3–10 in the left-hand chords, while the right hand superimposes, in succession, forms of 4–26, 4–27 and 4–26 again, the whole joining in features identical or similar to those of measure 1 (the last seven notes form a new set, 7–32).

Several processes may be observed in these three measures with respect to the use of the five “primary” sets—as well as to the use of the other “non-primary” sets. First, the small primary sets are joined in different ways to produce the large primary set, 7–31. Second, the same small sets are joined in ways which synthesize new sets—for example, set 7–32 grows out of the union of 3–11 and 4–26 in bar 3 (third eighth). These processes recur repeatedly, resulting in a great variety of materials related to the primary sets. A third process appears later, in which the large primary set is partitioned into new subsets. This may be thought of as a kind of “opposite” to the second process described above. While it does not occur explicitly in the first three bars, it might be considered implicit in measure 3, where the three triads of the left hand form the same seven-note collection as those of bar 2 (set 7–35 [11,0,2,4,5,7,9]; Example 3).

The small sets—3–11, 4–26, 3–10, 4–27—are all common sounds in tonal music. Harmony characterizes them, respectively, as the major triad (or its inversionally equivalent, the minor triad), the minor-minor seventh chord, the diminished triad, and the major-minor seventh chord (or its inversionally equivalent, the diminished-minor seventh chord). The seven-note primary set (7–31) is not a familiar combination in the harmonic vocabulary of tonal music.

All five sets are subsets of the “octatonic” scale (composed

Example 3



Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

of eight pitch classes alternating whole and half-steps within an octave). The small sets project this feature only weakly, due to their tonal connotations as noted above. Because they are more likely to be closely associated with these tonal constructs, they require some element of support to render their connection with octatonicism inferable to the listener. Only set 7–31 is unambiguously octatonic, lacking but a single pitch of forming that superset. In this piece, as we shall see, it is the synthesis of the smaller sets into the large one which either emphasizes or suppresses their octatonic property. This can be heard in the first three measures, where the predominance of set 7–31 in measure 1 and through the first two eighths of measure 3 projects the octatonic coloring, while its absence in measure 2 results in a quite different sound-color.¹⁵

3.

The materials of the first three measures recur in diverse contexts throughout the piece, and an account of events is facilitated by providing some sort of “formal plan” for the

¹⁵In addition to the small primary sets cited in bar 2, new sets 4–19 and 7–35 also appear—the latter perhaps less conspicuous than the former. Neither 4–19 nor 7–35 are subsets of the octatonic scale.

work. The piece can be characterized as conforming to a kind of rondo scheme (ABACA), where each adjacent pair of lettered sections is separated by a “transitional” or “coda” section. Such a formal plan is diagrammed in Figure 1. The plan arises from a “conventional” perception of the piece as consisting of elements—passages—which could be termed “thematic” in a general sense and elements which, by comparison, may be heard as fulfilling connective, change-effecting or concluding roles—labeled “transitional” or “coda.”

The exact points of subdivision have been reached with difficulty in some instances. However, the divisions posited here permit a productive examination of the piece and minor changes would not significantly alter the results of this analysis.

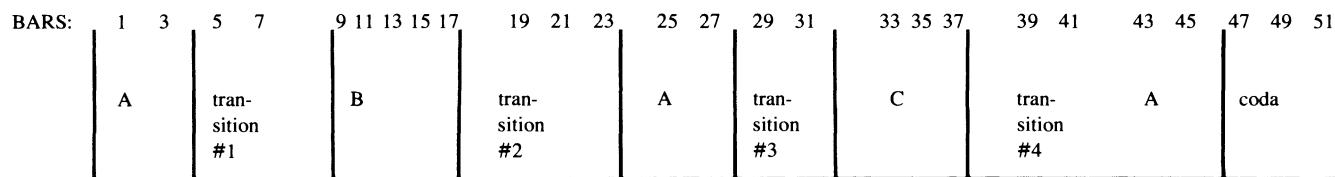
The chief criterion for designation of divisions has been the pronounced changes in thematic material and rhythmic character which occur intermittently. Sections labeled with letters are easy to distinguish “thematically.” The “transitional” and “coda” passages pose difficulties for they tend to mix familiar with new material. They are distinguished from the “thematic” sections which adjoin them by the assertion of their different rhythmic character; they are less obviously regular—more complex in their greater range of durational values—than are the lettered sections. At the same time, they evince a simpler and lighter texture, usually consisting of only one rhythmic “voice” at a time.

It must also be noted that the distinctions between transitional and thematic sections attenuate towards the ends of the piece.

The A sections feature a return to the material of the first three bars, either in whole or in part. In the first such return, measure 24 (last four eighths) corresponds to measure 1, bar 25 to bar 2, and bar 26 to bar 3. Bars 27–28 correspond to bar 4, but the alterations are significant. (Bars 27–28 will be examined in detail shortly.) The third and last A section is only a shadow of the original. Bars 43–44 (last two eighths) employ material of bars 1–2, but in truncated form—only one statement of the corresponding earlier bars’ material sounds each time. Bars 45–46 reiterate the two transpositions of set 7–31 of bar 43. (The pedal C which is articulated in bars 43–46 is a significant tonal addition to this return of A material, but as tonal considerations are not in the sphere of set relations, upon which this analysis focuses, it will not be dealt with. It is but one of many tonal cues which point to C as “centric” for this piece.)

The transitional passages which separate each pair of sections contain some appearances of A material and in this manner affirm the primary sets in toto, as first exposed in the piece. Examples may be found in bars 5–6 of the first transition (the last two eighths of each bar), and in bars 20 and 21 of the second transition (last two eighths of each bar). The material of the third transition (29–31) is “new,” though not entirely bereft of primary sets. However, they emerge in new environments here,

Figure 1. A formal plan for “Brouillards”



Example 4

The image shows a musical score for piano, consisting of two staves. The score is annotated with various set numbers and dynamics. The first staff has a measure labeled '29' with a dynamic of *p*. Above it are annotations '4-18 (6,7,10,1)' and '3-5 (1,6,7)'. A bracket labeled '8' spans from measure 29 to measure 30. The second staff has a measure labeled '30' with a dynamic of *f*. Above it is the annotation '3-11 (1,10,6)'. A bracket labeled '8' spans from measure 30 to measure 31. The third staff has a measure labeled '31' with a dynamic of *p*. Above it is the annotation '3-11 (7,4,0)'. A bracket labeled '12' spans from measure 31 to measure 32. The fourth staff has a measure labeled '32' with a dynamic of *f*. Above it is the annotation '3-11 (1,10,6)'. A bracket labeled '12' spans from measure 32 to measure 33. The score includes various musical notations such as notes, rests, and dynamic markings.

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

represented only by forms of the triadic set 3–11 (Example 4; the [1,10,6] form in the rapid-note left-hand figure of bars 29–30 is perhaps unlikely to be discerned as a separate entity, embedded as it is in set 4–18).

The fourth transition (38–42) contains no conspicuous dispositions of primary sets, though one form of 3–11 (8,4,1) is outlined by the skips in bar 39 (Example 5; see also bar 19 of the second transition for a similar outlining). This is somewhat reinforced by the shape of the line itself, in which the stepwise motion may “direct” the ear from the initial C-sharp to E, and towards G-sharp from G (Example 6).

The “coda” following the last A section contains the three-note primary sets (3–10 and 3–11) in the left hand in bars 48–52, without the four-note overlay of measures 1–2.

In summary, not only do the A sections employ the primary sets exposed in bars 1–3 in similar and thus readily recognizable

contexts: the first and second transitions and the coda do so as well. The third and fourth transitions employ different pitch materials, though traces of the original resources in the form of set 3–11 do appear. However, the B and C sections are altogether different in their relationship to our primary sets.

The B section (bars 9–17 in the formal plan) emerges from the last two measures of the first transition, out of the union of 3–11 with 4–26, in the gesture which appears on the third eighth of bar 7 (forming new set 7–21), recurs in bar 8, and then persists through the next five measures as an ostinato (Example 7). This set (7–21), born of a new synthesis of the small primary sets, contrasts sharply (in its intervallic content) with set 7–31, so that the B section is distinguished from the A section by a marked change in sound color (though not in sound density, since seven-note combinations remain the norm for each gesture). These particular seven-note sets differ considerably in

Example 5

Mouv^t.

38 39 40

pp

3-11 (8,4,1)

pp

8. bassa

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

Example 6

3-11

3-11 (8,4,1)

Example 7

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

intervallic content; as Figure 2 shows, they share no common entries for any interval class across their vectors.

The “melody” of the top staff, while adhering to the pitch content of the ostinato, articulates two new combinations as well as another form of a familiar one (Example 8). The three pitches of bars 10–11—the lone F-sharp plus the C-sharp decorated by the grace note D—yields set 3–4. The next bar rearticulates the F-sharp on beat one but this time it is decorated by G, forming set 4–8 with the lower figure of beat two. The continuation of the lower line on the top staff of bar 13 unfolds set 3–11 as (1,10,6)—a transposition already cited in connection with the third transition (see Example 4), which follows this section.

Set 4–8 was articulated earlier, in bars 5 and 6 (first two eighths), in a different transposition (Example 9). Set 3–4 recurs later, in the second transition (bars 19 and 23, lower

Figure 2. Interval vectors for sets 7–31 and 7–21

7–31 [336333]
7–21 [424641]

staves), as the second half of a new melodic shape (the first half forms set 3–5) and again, similarly, in the fourth transition, in bars 39 and 41 (Example 10).

In this way, the first transition introduces a new set (4–8), which recurs in the B section’s “theme,” containing set 3–4 embedded within (articulated in bar 11). The latter will provide a basis for material in transitions 2, 3, 4 and in the coda; thus a

Example 8

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

Example 9

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

connection between contrasting “transitional” and “thematic” material is established in the B section.

The third transition (bars 29–31) is quite different in character from the others. As cited in Example 4, it includes sets 3–11, 3–5 and 4–18 in the rapid notes which open bars 29 and 30. Each of the last eighths of those measures combine two forms of set 3–11 in an ornamental figure which sums to set 6–30—in a total of two transpositions (Example 11; compare to Example 4). Thereafter, in bar 32, an ostinato begins which includes five notes: a form of set 5–19 (Example 12). With the exception of 3–11 these sets all lie outside the matrix of primary sets.

The C section itself issues from the ostinato of bar 32, to which it adds, in bars 33–34, a melodic shape of two bars’ duration, moving in eighth-notes (for the most part) in the left hand (Example 13). These moving eighths effect a change in the ostinato of bar 32 (based upon set 5–19), in that one note, D, is not always present; it is often replaced by one of three other pitches. The four notes which are consistently present (9,8,6,3) form a combination labeled 4–13. Taken together, the moving eighths also form set 4–13, but in a permutation inversionally

Example 10

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

Example 11

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

Example 12

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

equivalent to that of the ostinato (11,0,2,5). The interaction of the ostinato form of 4–13 with the melodic form yields various five-note combinations—including, of course, set 5–19 when the variable pitch is D. (Figure 3 depicts these relationships by representing the ostinato form of set 4–13 as a large rectangle intersecting a series of small rectangles which represent each pitch of 4–13 in its melodic form.) It is the intersection of these pitches with the ostinato which produces the range of five-note sets cited on Example 13. (The example and figure assume the listener retaining the two sixteenths of the left hand [6,9] articulated on each quarter.)

If bars 33–34 are viewed as a phrase, each half-phrase (antecedent bar 33 and consequent bar 34) yields a different permutation of set 7–31. (The four forms of set 7–31 are cited to the right of bars 33–37 of Example 13.) Bars 36–37 transpose the material of bars 33–34 (where $t=5$) and so also the sets found there. Though the large set, 7–31, is quite conspicuous, very few small primary sets occur (3–11, 3–10 and 4–26 all appear—they are cited in Example 13, bars 32–34, and are easily located in corresponding bars 36–37—but they seem far less prominent than the “new” four and five-note sets).

Taken as a unit, the sum of all pitches of the entire two bars of 33–34 (corresponding to the complete melodic shape of the moving eighths in the left hand) forms set 8–28 (11,0,2,3,5,6,8,9)—a form of the octatonic scale. Bars 36–37 provide a transposition (4,5,7,8,10,11,1,2).

A connection between the new sets cited in the third transition

Example 13

Section C
Un peu retenu

31 32 33 34 35 36 37

pp *piu pp*

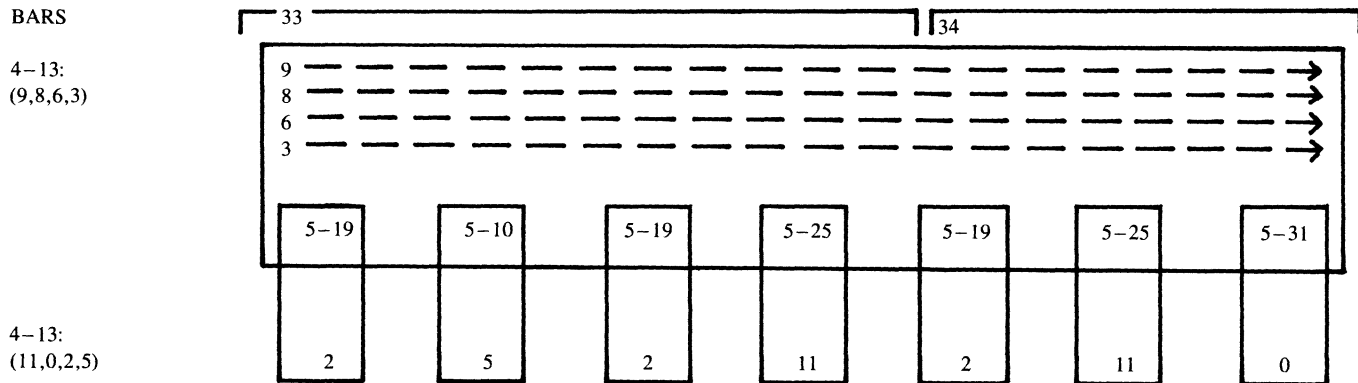
3-11 (9,6,2) 5-19 (9,8,6,3,2) 5-19 (9,8,6,3,2) 5-10 (9,8,6,5,3) 5-19 (9,8,6,3,2) 5-25 (11,9,8,6,3) 7-31 (2,3,5,6,8,9,11)

4-26 (6,9,11,2) (5-25) 5-19 5-25 5-31 (9,8,6,3,0) 7-31 (3,2,0,11,9,8,6) 5-19 5-19 (7,6,4,1,0)

5-19 (2,1,11,7,6) 5-10 (2,1,11,10,8) 5-19 5-25 (4,2,1,11,8) (5-25) 5-19 5-25 5-31 (2,1,11,8,5) 7-31 (7,8,10,11,1,2,4) 7-31 (8,7,5,4,2,1,11)

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

Figure 3. Diagram of bars 33–34 showing interaction of inversionally equivalent 4–13 set forms



(Examples 4 and 11) and those of this C section (Example 13) can be seen in the fact that all are subsets of the octatonic scale. Most of them (primary sets 3–11, 3–10 and 4–26 excepted) sound octatonic due to the presence of tritones and minor seconds (often in multiples) and alternating whole and half steps between adjacent tones, more characteristic of this collection than of the major and minor scales. In a sense, the transition prepares the way for an increase of octatonic sound color which reaches its fullest expression in the C section.

4.

Returning to bar 4 of the first A section, one may observe that while it resembles the preceding measures in its articulation of a triad in the left hand (set 3–11, this time as [2,11,7]), the right hand now contains five pitches instead of the usual four (Example 14). Together, both hands provide a total of eight pitches (set 8–20)—but this reveals little about any possible connection between bar 4 and those which precede and follow. However, a

comparison of the five-note set in the right hand with the earlier measures indicates that these five notes most nearly resemble the four-note combination sounded against the (7,4,0) form of set 3–11 in bar 1 (first eighth); here in bar 4, the five notes consist of that set 4–26 with the addition of A-flat. If the latter is removed, for purposes of comparison, and the seven-note residue identified, the resultant set is 7–21—in exactly the transposition used for the B section ostinato of bars 9–14! (Example 14 shows the 7–21 residue to the right; compare with 7–21 shown in Example 7). And indeed, a close connection may be heard between the sound color of bar 4 and the B section's ostinato. In a sense, the material of bar 4, emerging from that of bars 1–3, actually anticipates, in a subtle way, the ostinato of the B section.

Bars 27–28 of the second A section resemble bar 4, with the bipartite set 8–20 appearing on the first half of each measure, but the third and fourth eighths are different here. They too consist of eight notes (providing two transpositions of set 8–27

Example 14

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

this time), partitioned into forms of set 3–11 ([7,3,0] and [2,5,9]) and five-note sets. The first of the latter consists of the same notes which occur on beat one of each bar (10,8,6,3,1), the second, of (0,10,8,6,3). If the reasoning of bar 4 is pursued here, one may again reject the A-flat from the first set—for purposes of comparison—and discover that the seven-note residue forms set 7–31 in its original transposition ([7,6,4,3,1,0,10], Example 15; compare to Example 1).

A similar process applied to the last eighth of bar 27 produces less felicitous results. The five notes in the right hand do not closely resemble any four-note primary set form of bar 1; instead, they resemble (but are not identical to) a transposition of the preceding eighth of bar 27. However, if all five notes are viewed as candidates for exclusion, one in particular—B-flat—leaves a primary set form (4–27 as [8,6,3,0]) which in turn combines with the left-hand’s 3–11 form to produce another transposition of set 7–31 (9,8,6,5,3,2,0). Since set 7–31 is to be ascendent, one could extend to the C section, by analogy to bar 4, the suggestion of anticipation, of that set’s impending importance. Such an inference is speculative—especially since there is another pitch (A-flat) in the right-hand’s last eighth (bar 27) whose rejection would yield a form of primary set 4–27,

and that form, combined with the left hand’s 3–11, produces an alien set, 7–Z37 (6,5,3,2,0,10,9). Nonetheless, one may contemplate the passages of bars 4 and 27–28 vis-à-vis their subtle differences and their occurrences in only two of the three A sections. Could it be that we experience a hint of preparation for the B section’s shift in predominant seven-note set material, through bar 4’s superset of set 7–21 which, having to fulfill a different kind of anticipatory rôle in bars 27–28, undergoes a subtle change (into 7–21’s superset followed by 7–31’s superset) and, being unnecessary in the concluding A section, does not appear there at all?

5.

Several architectonic processes may be perceived in “Brouillards” through a set interpretation of the piece. First of all, a connection exists between the formal plan and the primary sets cited in that material first presented in the piece recurs subsequently in similar forms, thereby defining the A sections in the rondo scheme. The contrasting sections—B and C—draw upon the sets too, but find different applications for them. The B section employs the small sets, 3–11 and 4–26, but joins them in a manner which forms a contrasting seven-note superset,

Example 15

27

8-27 (8,7,6,4,3,1,0,10)

7-31 (7,6,4,3,1,0,10)

8-27 (10,9,8,6,5,3,2,0)

7-31 (9,8,6,5,3,2,0)

Copyright 1913 Durand et Cie. Used by Permission of the Publisher, Theodore Presser Company. Sole Representative U.S.A.

7–21. The C section eschews the small primary sets in favor of the large one (7–31) which is partitioned into new four and five-note combinations. The transitional sections utilize material directly borrowed from the A sections, and they also initiate important “new” materials (though these are seen to harbor connections with the “old,” in the B section). In a manner of speaking, the new material of the transitions may be thought of as having been “spun-off” the original material, asserting its independence in those passages.

The aspect of octatonicism is also tied to the formal plan. The potential for octatonicism exists in all the primary sets, but at times it is entirely thwarted, as in the case of the B section. Elsewhere it is strongly exploited, as in the C section and

preceding transition, which are saturated with octatonic sets. The rest of the time—that is, in the A sections and transitions and coda—it depends upon the presence of set 7–31 and on the proportion of non-octatonic new sets presented. For instance, the fourth transition exhibits a paucity of octatonic sets, relying instead upon non-octatonic (and non-primary) sets 3–5, 3–4, 4–9, and 6–5.

6.

Were it necessary to characterize “Brouillards” in a word, I would propose “dichotomous.” The piece strikes me as ambiguous in several respects: in its fluctuation between octatonic and non-octatonic passages (is it octatonic or not?), its use of primary sets in the B and C sections (does 7–31 result from the union of the small sets or do the latter result from the partitioning

of the large set?), the formal plan itself in its dual aspects of rondo scheme with transitions and coda versus alternation of passages of contrasting rhythmic character and texture—a view in which the “transitions” assume a stature of importance comparable to the lettered sections (this view supported by their relatively equal lengths in the work). Finally, there is, in the appearance of the score, a sense of dichotomy in the way the composer is constantly juxtaposing and superimposing flats or sharps against naturals—diatonic C-natural in the left hand in bars 1–4 against flats in the right hand; C-natural (dominant triad) for bars 9–17 in the left hand against sharps in the right. There is a suggestion of indecision or lack of resolution in this dimension which persists to the very end, where the last sound heard is the leading-tone triad (not the “tonic” C-major), against the still-floating A-flat in the right. This quality of ambiguity or “lack of focus” alludes to the title of the piece—“Fogs”—by the presentation of resources and manipulative procedures at the beginning of the piece which point in two or more directions at once, all of which are then affirmed later in the piece. The conflict between contrasting characteristics is not resolved in the conclusion—the listener is left projecting them in his mind’s ear—yet it is remarkable how interdependent all elements of the piece are, including (and contributing to) this aspect of dichotomy.

To a rather large extent, Debussy’s music (of which “Brouillards” may be considered typical) reveals, in its pitch resources, combinations which exhibit characteristics lying beyond traditional notions of harmony, voice-leading, and a referential tone and sonority (tonic). On the one hand, he seems to have fastened upon some pitch combinations which would arise only coincidentally in music traditionally tonal and which would require stringent restraints in terms of voice leading and harmonic procedures; on the other, he seems to have viewed these and more “conventional” combinations, in isolation and in their interrelationships, in ways which transcend or thwart their traditional tonal implications.

The process of discovering such combinations and their subsequent dispositions is facilitated—aurally as well as visually—by approaching the music from the perspective of pitch-set relations. One sees and hears connections between apparently diverse elements which one might otherwise ignore. One may also become aware of distinctive features among otherwise similar elements which might escape notice.

Moreover, some advantages derive from the absence, in set-theory, of notions such as “tension” and “resolution,” of “motion” and “repose” as parameters defining properties of pitch combinations. The emphasis on intrinsic and quantifiable properties in set theory is especially compatible with pieces like “Brouillards,” where quantitative changes occur from one temporal point to another, but where coherence does not depend upon the resolution of “conflicts” traditionally considered to be implicit in certain pitch combinations or contexts.

One is not constrained from observing other aspects of Debussy’s music, including that of tonality. On the contrary, identification of set relationships often seems to support, albeit from a different perspective, conclusions one may draw from other modes of pitch analysis.¹⁶

Other pieces examined by this author exhibit pronounced differences in both pitch resources and process, suggesting that whatever insight is gained into the nature of Debussy’s compositional process through the apparatus of pitch-set theory does not include the revelation of a system or formula for producing pieces. Although certain shared characteristics can be observed in his music—“favorite” sets, idiosyncratic ways of using sets in some matters of detail—each piece is its own master.

¹⁶Although “Brouillards” provides a less congenial example than certain other pieces in this regard—and for this reason exhaustive compilations have not been included here—a casual survey of set forms vis-à-vis invariance points to a high correlation between the white-note material (of bars 1–17, 20–21, 24–28, 42–46, 49–52 left hand) and the scale of C major (i.e. set 7–35, [11,0,2,4,5,7,9]).