Pitch Structure
and
Long Range Voice Leading
in
Stravinsky's *Requiem Canticles*

by
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Numerous composers and theorists have probed the late serial works of Igor Stravinsky for the wealth of musical and technical invention to be found there. What makes this portion of Stravinsky's output so intriguing is the unique manner in which the composer has adapted twelve-tone methods to his own purposes. Much has been written on Stravinsky's rotational treatment of his row material, the significance of the rotational technique, and the contribution thus made to modern serial practice. Even more striking is the extent to which Stravinsky retained an essentially tonal orientation despite his adoption of serial techniques, as evidenced by the frequent occurrence of apparently tonal formulas in the musical surface of these late compositions. A work which is particularly interesting in this regard is the *Requiem Canticles*, Stravinsky's last major work. Indeed, the obvious tonal references in the *Requiem Canticles* are so conspicuous as to suggest that a tonal conception underlies the entire work.

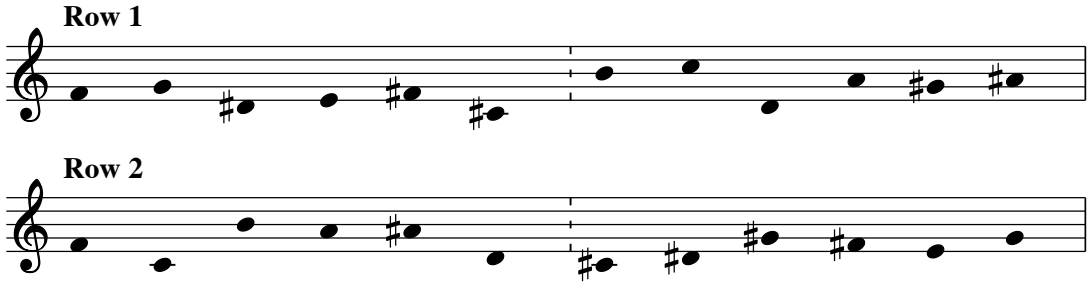
A detailed accounting of serial procedures in the *Requiem Canticles* reveals consistency and rigor in the employment of a highly individual serial methodology. The application of tonal-metric reductive techniques convincingly reveals a structural background running through these nine short movements which is equally elegant and rigorous in its adherence to tonal-contrapuntal models. It is in the juxtaposition and interpenetration of these two seemingly disparate methods of construction, the serial and the tonal-contrapuntal, that this work is unusual.

The composition of the *Requiem Canticles* was begun in March of 1965 and largely completed by August of the following year. It was commissioned by Stanley Seeger, Jr. of Frenchtown, New Jersey, and the dedication reads, "*to the memory of Helen Buchanan Seeger*". The first performance took place at the McCarter Theater at Princeton University on October 8, 1966, Robert Craft conducting. In titling the movements *canticles* Stravinsky was referring not only to the diminutive proportions of these near miniatures, but also to his decision to curtail the

text to a limited number of sometimes fragmentary passages from the Proper of the Requiem Mass. All parts of the Ordinary of the Mass are omitted, as are the Offertory (*Domine Jesu Christe*), Communion (*Lux aeterna*), and several other passages commonly included in eighteenth and nineteenth century Requiem settings (*Quid sum miser, Recordare, Confutatis, etc*.). In addition, the text of the *Introit* is truncated to its concluding sentence (*Exaudi orationem meam; ad te caro veniet*), while the *Tuba Mirum* appears in an abbreviated form restricted to its opening sentence (*Tuba mirum spargens sonum per sepulchra regionem, coget omnes ante thronum*).

This "first mini- or pocket Requiem" (to use Stravinsky's jest) is an expression of, among other things, the furthest extent of the development of the composer's serial thinking. Stravinsky's use of two distinct rows in this work appears at first as a curiosity and anomaly.

Example 1. The two rows of the Requiem Canticles



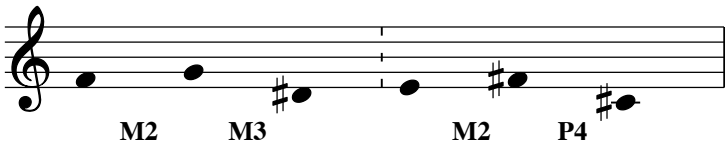
Row 1 alone is used in the *Exaudi*, *Rex Tremendae* and *Lacrimosa*; Row 2 in the *Prelude*, *Dies Irae*, *Tuba Mirum* and *Libera Me*. Both rows are employed, either in juxtaposition or in combination, in the *Interlude* and *Postlude*. Moreover, according to Vera Stravinsky and Robert Craft (14), Stravinsky did not compose the nine movements in the order in which they appear, but began with the *Interlude*, one of the two movements that utilize both rows, and from that point composed them in the following order: *Exaudi, Prelude, Dies Irae, Tuba Mirum, Rex Tremendae, Libera Me* and *Postlude* (the *Lacrimosa* is omitted from the account). This implies

that the use of two rows was an early and integral part of Stravinsky's conception. Stravinsky himself confirms this in the liner note he supplied to the first commercial recording (made on October 11, 1966), where he comments that

> The origins of the work were in certain intervallic designs that I expanded into contrapuntal forms and from which, in turn, I conceived the larger form of the work. The two-fold series was also discovered early on -- in fact, while I was completing the first musical sentence.

Stravinsky's reference to the use of two rows as a *discovery* gives rise to questions concerning structural similarities or relationships between the two rows. His usage throughout the nine movements of the Requiem Canticles treats the individual hexachords of the two rows as independent units of linear ordering, and therefore it is the structure within and between hexachords that is of primary interest. The designation of the two rows as "Row 1" and "Row 2" is Stravinsky's own, and the first music he notated was that from m. 166-174, a section of the *Interlude* which utilizes Row 1 exclusively. Assuming that Row 1 was devised prior to Row 2, and therefore looking first at the structure of Row 1, one could speculate that hexachord **a** is generated by motivic expansion of the first trichord:

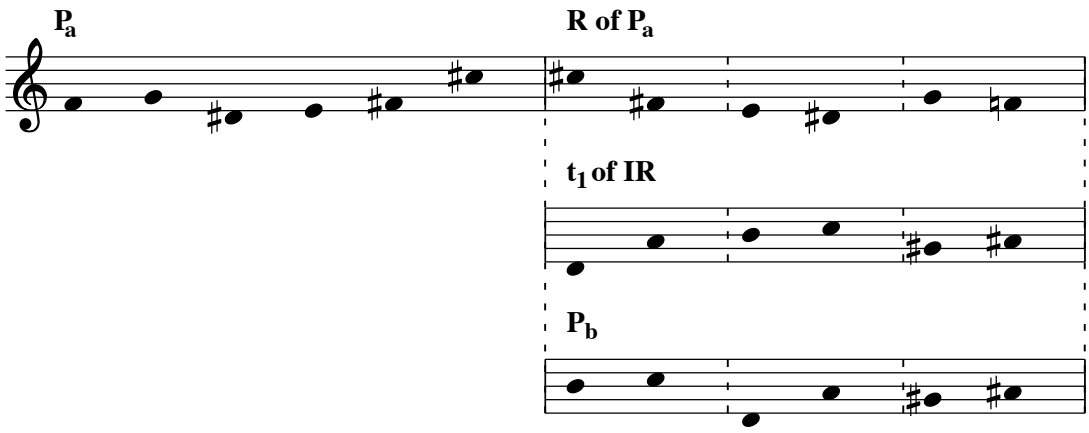
Example 2. Row 1 derivation of hexachord a



The pitch content of the resulting hexachord is combinatorial by inversion, and this

property is evident in the relationship between hexachords **a** and **b**. As illustrated in example 3 below, transposing IR of hexachord **a** up one semitone produces a complementary hexachord. The pitch content of the constituent dyads of the resulting hexachord are retained, but the first two dyads are exchanged to create hexachord **b**.

Example 3. Row 1: derivation of hexachord b

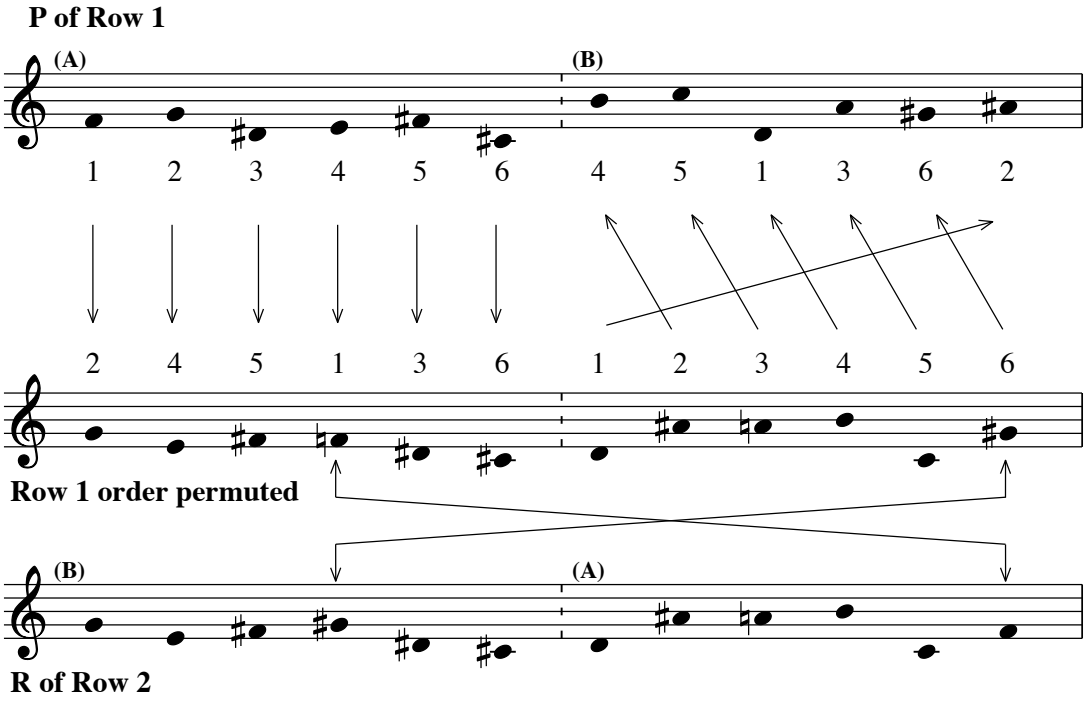


This procedure produces an ordering in hexachord **b** which cannot be derived through rotating hexachord **a** or its inversion, a significant fact since Stravinsky's raw pitch material is derived from a matrix of circular permutations (or "rotations") of the two rows' hexachords and their transformations through inversion and retrogression (see examples 15 and 16).

Row 2 is in turn derivable from Row 1 through re-ordering and pitch substitution. The first step in this derivation is taken by observing that the unordered pitch content of Row 2, hexachord **b** is obtained by substituting G# for F in hexachord **a** of Row 1, and inversely, the unordered pitch content of Row 2, hexachord **a** is obtained by substituting F for G# in hexachord **b** of Row 1. These substitutions having been made, a particular re-ordering is applied to Row 1, hexachord **a** to produce the retrograde of Row 2, hexachord **b**. An ordering is then devised for the retrograde of Row 2, hexachord **a** such that application of the previously used re-ordering

scheme produces a circular permutation (rotation) of Row 1, hexachord **b**. The re-ordering algorithm, {(1,2),(2,4),(3,5),(4,1),(5,3),(6,6)}, preserves only one pitch class adjacency from the original ordering.

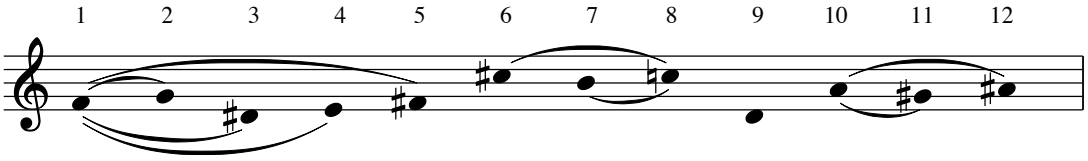
Example 4. Derivation of Row 2 from Row 1



Thus all of the material of both rows is derivable from hexachord **a** of Row 1, and inverse relationships are applied in the pitch domain to generate hexachord **b** of Row 1, and between hexachords in the re-ordering operation used to generate Row 2 from Row 1. As in the Row 1 derivation of hexachord **b** from hexachord **a**, the re-ordering and the F-G# pitch substitution together assure that all rotations of Row 2 hexachords will be distinct from one another and from all rotations of Row 1 hexachords. This approach is quite a departure from that found in the earlier *Movements* for piano and orchestra where the intervallic symmetries of the hexachordal material produce many duplicate rotations.

The pitches F and G#, which were exchanged between hexachords in the derivation of Row 2 are significant for their central role in the overall pitch structure of the *Requiem Canticles*, a structure whose deepest layer finds F as the central pitch in the *Prelude*, G# the central pitch in the *Interlude*, and C central to the *Libera Me*. The *Postlude* encapsulates this plan in the arpeggiated F minor triad played by the horn. Following the logic of this triadic reference further leads to the observation that pitches 2 through 5 of Row 1 are symmetrically arranged around F; pitches 6 and 7 are upper and lower chromatic neighbors to C; and pitches 10 and 11 are upper and lower chromatic neighbors to A. Having made this observation, it is nevertheless true that this view of row structure is inconsistent with both the rotational technique employed and the integrity of the hexachord as the basic unit of serial structure in the *Requiem Canticles*.

Example 5. Tonal implications of Row 1



In conjunction with the tonal implications of the row material, It is interesting to note that, like most diatonic scale formations, each of the four (unordered) hexachords contains a single tritone interval, C#-G in hexachord **a** of Row 1 and hexachord **b** of Row 2; D-G# in hexachord **b** of Row 1; and F-B in hexachord **a** of Row 2.

Milton Babbitt (1) has pointed out an additional relationship between the two sets whereby rotations of the individual hexachords (and by extension their transformations through

inversion and retrogression), when transposed to begin on the same pitch, yield the same number of transposition intervals in common between the two hexachords of each row. Row 1 yields transposition intervals of 0, 5 6 and 7, and Row 2 yields 11, 0, 1 and 2, both groups interpretable as pitch class numbers of all combinatorial hexachords.

As interesting as these abstract row relationships are, what is at the heart of the matter is Stravinsky's treatment of this raw pitch material. Spies (12), Kresky (9) and others have observed how rigorously and systematically Stravinsky exposes related groups of hexachordal rotations in certain passages. Examples may be found in the systematic presentation of rotations of the second prime hexachord of Row 2 in m. 176-192 in the *Interlude*, and in the assignment of particular hexachord groups to contrasting timbral groups in the *Lacrimosa*. Other examples of serial rigor occur in the simultaneous combination of row forms used to generate the homophonic choral passage at the end of the *Exaudi* (m. 71-76), and the successions of quarter note chords in the *Postlude*. But one must look beyond this serial systematizing to discover the integration of rigorous serial exposition with an equally rigorous voice leading schema. The clarity and logic of the voice leading are best approached through tonal-metric reduction.

There is some danger when applying reductive analytical techniques of overemphasizing fleeting musical details. Edward Cone's distinction between what he describes as analysis as opposed to mere description or dogmatic prescription (5) is an injunction to be taken seriously. And especially when approaching highly chromatic music the analyst never has to look very far to find no matter what pitch he is looking for. Yet by carefully assaying the weight a composer has imparted to a given musical event through distinctive use of register, orchestration, dynamics or any other articulative means, it is undoubtedly possible to bring reductive techniques to bear to elucidate a work's form and substance.

In his excellent article on Stravinsky's requiem settings Claudio Spies (12) suggests the presence in the *Requiem Canticles* of an overall tonal plan controlled by F as a central pitch. He cites as suggestive evidence a number of salient features, including the F which begins and ends the *Prelude*; the refrain chord in the *Interlude* built of superimposed fifths over an Ab bass; the C tonal center of the *Libera Me* with its bass motion from C to F and back; and the F minor triad outlined by the horn in the *Postlude*. These outposts of tonal implication are not mere surface details intended to suggest and evoke tonal associations. On the contrary, the tonally suggestive features Spies mentions are the outer and central pillars of a consistently conceived and executed background pitch structure conveyed through long range voice leading. Each of the nine movements is linked through pitch connections to contiguous movements, and each movement provides a portion of an extended background succession of parallel fifths, ascending from F-C in the *Prelude* to C#-G# in the middle movements, then falling a semitone to C-G with the arrival of the *Libera Me*. This C-G fifth in the *Libera Me* clearly has the sound and function of a structural dominant, and resolves to the "tonic" F in the *Postlude*, represented by the sustained tones of the horn sounding the notes of an arpeggiated F minor triad. The graphic analyses in examples 6-14 with accompanying commentary show in detail the basis for this interpretation.

That this rising background motion in parallel fifths clearly exposes F minor scale degrees is a process articulated by the formal division of the *Requiem Canticles* into set pieces. The *Prelude* begins and ends on F; the *Exaudi* ends on Ab, the *Dies Irae* on Bb. The dominant degree is missing, reserved for the penultimate *Libera Me*, but is substituted by Db which ends the *Tuba Mirum*. In a sense this Db (appearing enharmonically in the music as C#) is the furthest upward extent of the rising bass line. The Ab bass of the *Interlude's* refrain does not move the line forward, but refers back to ground already covered; and during the *Interlude's* third

episode, roughly in the middle of the movement (m. 168-72), the second and alto flutes make a conspicuous allusion that bridges the gap between the final C#-G#-B# sonority of the *Tuba Mirum* and the opening phrase of the *Rex Tremendae*. The *Interlude* then is an interruption not only in the progression of the texts; it is also a hiatus in the continuity of the structural voice leading progression.

Although the *Rex Tremendae* appears to continue the rising bass progression with its parallel coupling up another step to D#, reaching almost to the octave F, the D# turns back to C# at the crucial moment in the *Lacrimosa* (m. 252-4), and the C# immediately falls to C_. The importance attached to C# as an approach to C_ is underscored by the large number of movements in which C# figures as a structural bass note (*Tuba Mirum, Rex Tremendae, Lacrimosa*) or is made prominent in some other way (*Interlude, Libera Me*).

The actual descent from C# to C_ occurs three times, at m. 254, 263-66 and 284-88, each one more emphatically tonal in effect. The second and third of these descents coincide with the beginning and ending of the *Libera Me*. It is here that the succession of parallel fifths finally terminates. The unadorned chorale style of this movement begins with a tonally balancing counterpart to all the preceding tonal action. Its bass line ascends, coupled above in parallel fifths, from C to F, and then descends in arch fashion, uncoupled, to cadence on C, while the sopranos hover around their own C, decorated, as might be expected, by C#, and at the end by D#.

The *Postlude* offers no particular tonal activity apart from resolving the dominant sounding cadential C of the *Libera Me*. By contrast with the *Libera Me*, which comes closest to genuine tonality of any of the nine movements, the tonal and serial elements in the *Postlude* collide and coexist in the most surprising way. Against the horn's slowly unfolding F minor triad

appear successions of dissonant harmonies that are utterly non-tonal in either origin or structure. Interestingly, four of the six successions of quarter note chords, as well as the penultimate pair of half note chords all expose A# as the uppermost pitch of the initial chord. This is suggestive of a plagal-like turn toward the subdominant, and an interpretation of the cadential harmony itself as an interpenetration of tonic and subdominant harmonies, containing as it does only F, C, A# and C#.

When given this interpretation, the final chord's pitch content refers back not only to the *Prelude's* opening solo violin melody, as Spies has pointed out. In fact, both refer to the important long range structural bass motion in the piece, recalling the C# bass prolonged from the end of the *Tuba Mirum* to the *Lacrimosa*, its approach by leap from A# in the *Tuba Mirum*, and its ultimate descent to C, dramatized by the quasi-tonal harmonic language of the *Libera Me*. If the *Postlude* serves to recall and summarize this long range pitch structure, the opening solo violin melody in the *Prelude* certainly presages it.

The compositional style of the *Requiem Canticles* exhibits the familiar stratification of so much of Stravinsky's *oeuvre*, in which distinctly contrasting musical strands maintain their separate identities while being subjected to a segmentation that generates complex forms through a process of musical assemblage analogous to montage. Here the forms depicted are far simpler, with fewer strands than in the first tableau of *Petroushka*, or the *Symphonies of Wind Instruments*, a work which represents the apotheosis of this approach. The movements of the *Requiem Canticles* in the end all develop through fairly simple schemes of alternation, the alternating ideas preserving their separate identities through strongly contrasting timbral and motivic characterization.

This familiar Stravinskian technique proves to be a powerful tool in creating hierarchical

pitch organization in the midst of constantly revolving chromatic change. In the choral movements the important pitch material is, for the most part, logically given to the voices. In the *Exaudi* for example the sopranos' repeated ascents from C# to D# and the basses' stabilizing G# in the last choral phrase provide orientation that withstands the centrifugal pull of the harp and flutes, and at last at the cadence the strings confirm the choral pitch action. In the *Dies Irae* the static and durable choral harmonies stand in strong contrast to the instability of the orchestral material, and again it is the chorus that conveys thereby the structural pitch material.

In the solo movements the orchestra is given more responsibility for the pitch structure, perhaps in order to allow more freedom in the contour of the soloists' parts. In the *Tuba Mirum* the trumpeted triplets herald the upper voice ascent from E# to G#, and the music relies on the bassoons to finally make the case for C# in its correct position below G#. In the *Lacrimosa* timbral and registral stratification enable the listener to follow the organizational pitch logic of the disparate strands, and sets off the first descent from C# to C_ by isolating it in the trombone stratum.

Another aspect of stratification in the *Requiem Canticles* is the inclusion of materials in each movement which have opposing static and active characters. It is typically the static elements which convey the structural pitch material, almost by necessity. Thus in the *Prelude* it is the repeated sixteenth notes of the ripieno strings that provide the backbone of the long range voice leading; in the *Dies Irae* it is the static harmonies scored for chorus and horns; and in the *Tuba Mirum* it is the trumpets' repeated notes and the ten-fold repetition of the octave-and-a-seventh leap in the bassoons. In the *Rex Tremendae* the static element is furnished by the repeated chords for flutes and strings whose insistence on the bass motion from C# to D# clarifies the complexities of the choral counterpoint. In the *Lacrimosa* the static contrabass tones

underlying the flute harmonies in the first two strophes foreshadow the structural importance of C in the *Libera Me*. But equally important is the static insistence of the bass trombone ending each phrase on first line G (or its neighbor, G#), a procedure which, when abandoned, throws into sharp relief the structurally important descent from C# to C_. Finally in the *Postlude* it is the horn's triadic arpeggiation which is the static backdrop for the bell-like chords scored for vibraphone, orchestral chimes and celesta.

An interesting possibility inherent in these schemes of alternation which characterize the forms of the individual movements is the reiteration of structural pitch motion within each movement. Through exercising this possibility, Stravinsky lends even more clarity and emphasis to what is structural. Among the clearest examples of this are the repeated choral outbursts of the *Dies Irae*; the repeated ascents to C# in the *Tuba Mirum*; and the repeated bass motion from C# to D# in the *Rex Tremendae*. All of the movements except the last two emphasize their own structural pitch motion through redundancy. The final two movements on the contrary exhibit no structural pitch motion at the deepest level.

So Stravinsky makes full use of the compositional arsenal, utilizing orchestration, register, characterization, contrast and formal structure to create and support the unfolding of the overall pitch plan of the *Requiem Canticles*. The full arsenal is needed to overcome what might be called a kind of entropy inherent in serial chromaticism.

The choice of a succession of parallel fifths as material for organizing background voice leading suggests many layers of meaning. What more appropriate material to embed in the underlying structure of musical oblation than the materials of plainsong which are at the very heart of the European liturgical tradition? And in a work that so conspicuously employs both contrapuntal and serial methods as dual principles of construction this underlying succession of

parallel fifths adds ironic commentary on the academic canons of tonality and serialism alike. The pre-tonal, pre-polyphonic substance of Medieval music underlies and holds in place the simultaneous and cooperative unfolding of organizational methods derived from both serial and contrapuntal practices.

It remains to consider some rather large and open-ended questions concerning the concept of tonality posited here and the relationship of row structure to background voice leading. Can the *Requiem Canticles* actually be considered in some sense to be a tonal work? James Baker, in the conclusion to his essay on *Schenkerian Analysis and Post-Tonal Music* (4), expresses the view that

> "Under no circumstances does the mere pointing out of tonal-like configurations or progressions constitute a valid analysis establishing the tonality of a composition. Rather, in order to demonstrate that such components fulfill tonal functions, their precise roles within a conventional hierarchical tonal structure must always be specified. If no such explanation is possible, a basis in another type of structure must be sought."

There is admittedly little of conventional tonality present in the *Requiem Canticles*. There are certainly "configurations and progressions" that are compellingly suggestive of tonality. There is also the fact that all the tonally suggestive configurations point to the same consistent underlying pitch framework. If the analysis of long range voice leading presented here is cogent, and the ear can follow its progress, then musical details may be interpreted in terms of their relationship to it. Given the chromatic serial method employed, some details will only be interpretable by virtue of their lack of relationship to the underlying voice leading, though that is perhaps not so different from extended passages of vagrant harmonies in the works of some very

tonal romantic composers.

The temptation to regard this music as in some way tonal, and the tendency to discuss it in those terms arises not only because of tonal-like details on the musical surface, but also because of the presence of a long range pitch framework of a type that has come to be associated with music composed in the major-minor tonal system. What is most important here is the presence in a serial work of a kind of pitch organization which is not itself derived from serial formations, but which draws directly and powerfully on the most potent of formal principles developed by the tonal tradition.

This kind of long range structural voice leading is normally considered key defining only when it is the linear expression of a controlling tonic triad which serves as the harmonic basis of a work's polyphony. Substituting perfect fifth for triad, This description appears to fit the *Requiem Canticles*' structural bass quite nicely. Coupled from the outset a perfect fifth above, the structural bass overshoots its real goal by a semitone in its ascent from F, arriving on C# at the end of the *Tuba Mirum*. The C# then becomes a kind of long range appoggiatura, finally resolving down to C□, completing the linearization of the opening F-C fifth.

Also operative, though seemingly not as thoroughly worked out, is a penetration of serial materials, which clearly predominate on the musical surface, into the structural background. The same F minor scale degrees which activate the underlying pitch structure of the *Requiem Canticles* occupy conspicuous positions in the serial ordering of Row 1. The first hexachord begins on F and ends on C#. The second hexachord begins with motion from B to C and ends with G# and A#. The embellishment of C by its upper and lower chromatic neighbors which is embedded in the structure of Row 1 is precisely the pitch motion found in the musical surface of the most dramatically tonal section of the *Requiem Canticles,* the repeated bass descents from C#

to C_ of the *Lacrimosa* which culminate in the *Libera Me*, where the structural bass arrives on C, clearly imbued with a dominant quality. And as early as the *Rex Tremendae* the harmonies built above a C# bass always contain a prominent B natural. It is not stretching things too far to locate the germ of the governing contrapuntal background in the row structure itself.

It is partly by force of will and technical mastery that Stravinsky bends serial methods to his purposes; it is also in part something inherent in his procedures that facilitates realization of his formal plan. The rotation technique, particularly as it is developed in the *Requiem Canticles*, provides above all abundant variety of pitch groupings and orderings. The previously discussed reordering relationships used to generate the four prime hexachords of the two rows insures, in fact, that there are no duplicates among the 96 hexachord rotations upon which Stravinsky draws.

This abundance of raw materials is close to the heart of the matter. Stravinsky evinces little interest in exploiting the more obvious special properties of his rows. The presence of triads in many of the Row 2 rotations, described by Spies as a deficiency of the material, is apparently not a characteristic which concerned Stravinsky -- he neither features the triadic formations when they occur nor avoids the rotations that reveal them. Nor does he show any interest in the combinatorial properties of Row 1; in fact, the rotational technique he employs in the *Canticles* eschews the tendency toward continual and meticulous completion of the total chromatic found in so much serial music. There is limited evidence of purposeful use of the centricity to which Milton Babbitt refers (1), whereby certain pitches are supposed to have greater prominence a priori by virtue of the manner in which each group of rotations is generated from the same initial pitch (see for example m. 210 in the *Rex Tremendae*, m. 233 and 236 in the *Lacrimosa*, and especially m. 289-290 in the *Postlude*).

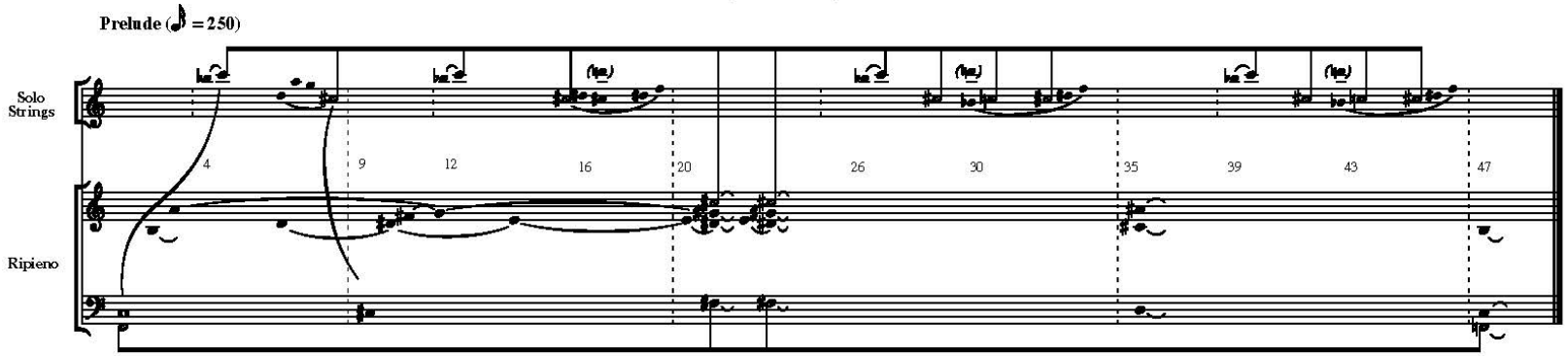
Rather Stravinsky's procedures here include first providing an abundant supply of raw

pitch material, and then operating on that material with the premise that any intervallic aggregate can, through careful disposition, assume the stylistic character and structural function required by the musical situation. Here the composer must rely on the listener's ear as well as his own to imbue chromatic aggregates with structural tonal significance; to interpret for example, the vertical combination of a major sixth superimposed above a major ninth, such as we find at m. 254 in the *Lacrimosa*, as an acoustically stable sonority, and hence an acceptable vertical expression of a single (lowest) tone. This suggests intriguing possibilities for extending many of the most useful concepts of tonal perception and thought.

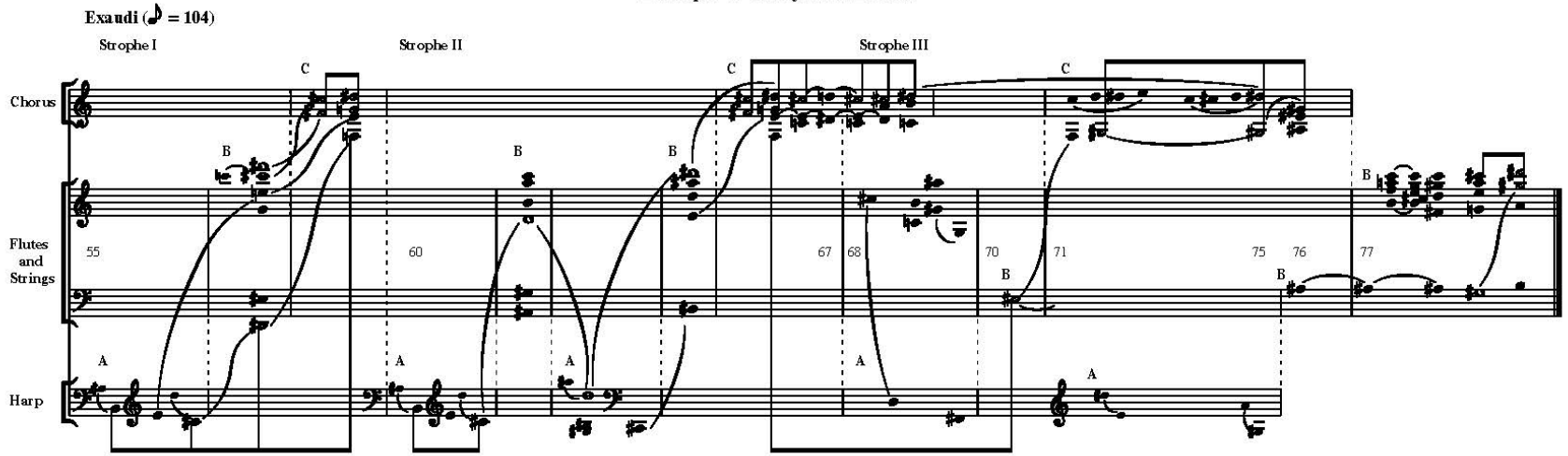
Most composers long ago left the closed, formal system of common practice tonality in search of an aesthetic that would encompass chromaticism. Some have attempted to substitute other formal systems, as, for example, in Boulez' *Structures*, or in John Cage's systematic derivation of content from chance operations. Other composers have followed a more evolutionary course, bringing with them both formal paradigms and aural predilections conditioned by the tradition in which they grew up. When a viable new musical aesthetic emerges which offers the same kind of closed, self-referential formal elegance as the classical tonal system, it will undoubtedly bear the imprint of what has come before. In the meantime musical aesthetics today evince an inherently transitional quality. The *Requiem Canticles* stand as an example of the particular direction this transition had assumed for Stravinsky at the end of his long composing career, a career that was ever cognizant of its deep roots in musical tradition.

The following pages present tonal-metric reductions of the nine movements of the *Requiem Canticles* in graphic form. Following the graphic analyses themselves are detailed discussions of the analyses, movement by movement. Additional musical examples referred to in the text may be found at the end of the article.

Example 6. Analysis of Prelude



Example 7. Analysis of Exaudi



Prelude

The *Prelude* begins by stating the F-C perfect fifth, colored by the second violins' B natural, giving the opening a Lydian cast. Stravinsky thus presents in a forthright manner the central tone of both the opening movement and the entire work, supported by its upper fifth. The C is immediately transferred to the uppermost voice with the entry of the solo violin in m. 4, and the opening B of the violas is now replaced by A#, enharmonically Bb.

The F-C fifth thus established, the stage is set for a long-range neighbor note motion which motivates the *Prelude*. The solo violin melody in m. 4 reiterates the A# to C, and makes a half cadence on C#, suggesting that the C ascends a semitone with an octave transference. As if to confirm this, the C# is immediately and prominently taken up by the cellos as the initial pitch of the second phrase, and, conspicuously, in the same register as the violas' C which begins the movement.

The second strophe (m. 9-19) repeats the solo violin melody of m. 4-7, with added counterpoint, and then departs from the initial statement of this material by providing a second, consequent phrase in the solo strings. Here the second solo violin takes up the first's cadential C#, prolonging it through repeated oscillations with its upper neighbor D#. This prolongation further strengthens the hypothesis that the C# represents a semitone ascent from C. However, the first solo violin in this consequent phrase suggests alternatively D natural as the upper neighbor to C. This competition between C# and D as the "real" alternative to C is never entirely resolved because of the recurrence of the first solo violin's melody in each of the last three strophes.

The third strophe again emphasizes the C#; the ripieno strings arrive twice at C# as the

uppermost note in the harmony before the entry of the solo strings. It is here that the opening F embarks on its own neighbor note motion to F#, a logical place for this event, since this strophe is situated almost exactly in the center of the movement (102 16th notes precede m. 20, while m. 35-54 occupy 100 16th notes). The ripieno harmony, with F# as its bass and C# its upper extreme, is continuously present through this strophe.

The conflict between C# and D as alternative upper neighbors to C returns in a surprising way in the fourth strophe. Both are present in the harmony of the ripieno strings, the D more conspicuously in the bass, the C# as an inner part. Here the D connects registrally with the viola's C at the beginning of the movement, and the cellos' C# at the commencement of the second strophe. The final strophe, from which the solo strings have been excised, returns to the harmony of the opening, resolving the neighbor note motions from both F and C by the return of the principle pitches, again colored by B natural.

Exaudi

Unraveling the much less schematic voice leading of the Exaudi presents a more difficult problem. A series of ascending whole steps in the bass, obscured by octave displacements, leads from the harp's opening B (the A# has too much the sense of an anacrusis to consider it more than an embellishment of the B) through C# (which ends the harp melody) and D# (in the second bassoon) to the tenors' F at the end of the first choral phrase, a continuation of the Prelude's F tonal center. Above this bass motion, however, the female voices enter with the open fifth F#-

C#, suggesting a chromatic ascent of the F-C fifth underlying the Prelude. The chorus' F#-C# fifth is foreshadowed by the violas and first violins whose perfect fourth forms the top two factors of the dissonant chord in m. 58 (a verticalization of the untransposed a hexachord of Row 1). The contrapuntal impulse motivating the opening choral phrase is found in the soprano line which leads the F#-C# fifth in an ascent to the augmented fifth, G-D#.

The second strophe begins with a restatement of the opening harp melody. This time, however, because the chord which follows it is different, the harp's C# connects registrally with the third flute's D, which in turn is transferred up an octave to the harp's D in m. 64 (a connection which is further reinforced by the immediate return of the harp timbre). The D ascends a semitone, with yet another octave displacement, to the first flute's D# in m. 65, thus attaining as a high point the same pitch class as the initial choral ascent in m. 59.

The chorus begins its second phrase as it began the first, with the F#-C# ascending to G-D#, the tenors again taking up the obstinate F of the Prelude. The remainder of the phrase is spent in repeated confirmations of the C# to D# ascent in the sopranos, while pitches adjacent to the G below are avoided, as are adjacencies to the tenors' F. Only when the chorus has concluded the phrase are those pitches reactivated, the G ascending to G# (second flute), and the F (enharmonically E# in the first horn) still obstinately refusing to be supplanted despite the centrifugal forces of the upper choral parts. With the ascent from G to G# the augmented fifth outlined by the soprano melody in m. 59 and m. 66 is "resolved" into a perfect fifth.

The horn's F is taken up at the beginning of the next choral phrase by the basses, who are heard here for the first time. The introduction of a new vocal timbre at this point helps to underscore the importance of this moment in the piece where, in a rather surprisingly move, Stravinsky abruptly abandons the obstinate F, going directly to G#, elliptically avoiding the

intervening F#, as if to emphasize once again, though in the subtlest possible way, the central position of F in the pitch hierarchy, while simultaneously at last allowing the G#-D# fifth to sound without any residue from the Prelude.

The remainder of the movement is clear enough. Through balanced ascents from C to E and C to Eb, the sopranos decorate D# by its upper chromatic neighbor. The G#-D# fifth is clearly discerned in the outer voices of the chorus at m. 72 and m. 75, and emphasized in the sopranos' final downward leap. The strings conclude in a kind of summation of the pitch motion thus far, the first violin line rising from C to C# to D# while the G# returns in the bass from its upper neighbor A#. These first two movements thus congeal around a progression of ascending perfect fifths. The Prelude's F-C fifth is elaborated by upper chromatic neighbors F# and C#, which are taken up again by the chorus in the Exaudi, and led up a whole step to G# and D#.

Dies Irae

The contrapuntal skeleton of the *Dies Irae* lies virtually on the surface of this rather static movement with its repeated declamations flanking a central *parlando* section. The A material of this ABA form is built around the perfect fifth A#-E#, and thus continues the ascending progression of perfect fifths that began with the F-C of the *Prelude* and the F#-C# and G#-D# of the *Exaudi*. The A#-E# fifth is transferred up three octaves from the celli and contrabasses to the trumpets and female voices, where it is preceded by lower chromatic neighbors A and E in the piano and first violins.

In a manner analogous to the *Exaudi*, the A#-E# fifth, when it is first heard in the chorus and brasses (m. 83), and again at the reprise (m. 97) appears over an F# bass. In each case the F#

initiates an ascent to A#, the first ascent overshooting by reaching to B and B#, upper neighbors to the structural A#. This upper neighbor motion balances the energetic lower neighbor motion which leads so forcefully into each sung entry of the chorus. The harmony which concludes the movement, like the one at m. 84, even contains both the structural A# and its upper chromatic neighbor B simultaneously, as if to foreshadow further ascent.

The contrasting material in m. 88-93 hangs ephemerally on the perfect fifth G#-D#, exposed most prominently in the first and second flutes in m. 88-89, picked up by the xylophone in m. 90, and transferred to the trombones in a lower register in m. 92-93. The G#-D# fifth provides a logical foil to the central A#-E# fifth of the principal material. Interrupting the third phrase of the A section (m. 87) before the A-E fifth in the piano and first violins makes its expected chromatic ascent, Stravinsky cleverly works the progression to the G#-D# fifth by reinterpreting the A-E as a pair of upper rather than lower chromatic neighbors.

An interesting detail of the voice leading in the central *parlando* section is the apparently sequential relationship between the settings of the two phrases, "*Solvet saeclum in favilla*...", and "*Quantus tremor est futurus*...". In the former, the first and second flutes descend from C to B to A and cadence on the fifth G#-D# (the G# occurring in the other two flutes). Similarly, the first trombone in m. 91 begins a descent from A# to A which is continued down to G as the line passes to the second trombone, then to F#, whose upper fifth C# follows at the end of m. 92.

Tuba Mirum

Despite its textural simplicity, the *Tuba Mirum* is one of the more complex movements from a contrapuntal standpoint, due to the compound melodies which characterize the vocal writing. The A and D of the opening perfect fourth in the trumpet are actually subsidiary tones

functioning as neighbor notes, and the trumpet's ascent to E# in m. 107 connects with the E# in the women's voices at the end of the *Dies Irae*. When the bass solo enters in m. 109, his opening C functions as a lower neighbor to C# in the following bar, and also connects the C# to the A# in the male voices at the end of the *Dies Irae*. This motion in the bass represents a first ascent from the A#-E# fifth that closes the *Dies Irae* up a minor third to the C#-G# fifth which closes the *Tuba Mirum*. However, in m. 110 the order of the voices is inverted, the G# initially appearing below the C#. The neighboring function of the trumpet's opening motive is now clear. This opening phrase in the voice has the character of an antecedent. The consequent phrase, set to the text "*spargens sonum*", immediately returns to the A#-E# fifth (here spelled A#-F_), making a convincing cadence on A#, and making a strong reference to the end of the *Dies Irae* by including B natural as an upper chromatic neighbor.

The G#-C# perfect fourth returns in the trumpets in m. 114, and the C# is present as a inner pedal tone in the second trumpet until m. 120, where it again returns to A#, reiterating the stepwise descent in the voice in m. 112-113. Against the pedal C#, the voice describes subsidiary linear motion in two registers: the upper register ascends from the D at the end of m. 113 to E in m. 115-16; the lower register descends from D# in m. 114 to D in m. 116, returning to D# in m. 118 and continuing up to E in the following bar. Thus in this lower register the voice describes a neighbor note motion from E to D and back, filled in by D# as a chromatic passing tone. The E in the upper register of the voice is poised to complete an ascending motion to E#, which is delayed until m. 121.

The second trumpet, having made its descent from C# to A# in m. 120, re-asserts the upper fifth E#, simultaneously linking up with the linear ascent in the voice which was temporarily abandoned in m. 116. Immediately, the first trumpet ascends once and for all to G#,

the upper fifth of C#. Comparing m. 107 with m. 121-124, this return of the trumpet introduction is set a minor third higher, lending emphasis to the ascent. The voice has a reprise of the opening phrase, repeating the ascent from C to C# and confirming it with a neighbor note embellishment. Finally the C# and G# are in their proper relationship with the G# a fifth above. Now in m. 127-129 the descent in the voice from C#, instead of sinking again to A#, continues down to G#, transferring the trumpet's G# of m. 121 down an octave. The C# is also immediately transferred to a lower register in the bassoons. In an elegant motivic detail, Stravinsky precedes this final G# in the voice by A# and E#, an aphoristic summation of the pitch motion of the entire movement.

Interlude

The interlude is built around a refrain consisting of pairs of repeated chords scored for four flutes, four horns and four timpani. Omitting the timpani, which provide primarily color and resonance rather than pitch definition, the refrain chord is built from three superimposed perfect fifths, Ab-Eb, Bb-F and C-G. Each statement of the refrain is followed by an episode, the first and third scored for three flutes and alto flute, the second and fourth scored for two bassoons and alto flute. While the first three refrains gradually diminish in length from four to three to two pairs of reiterated chords, the episodes increase in length from the aphoristic first to the lengthy third, which occupies more than a third of the Interlude's total duration. The final refrain is equal in length to the second, but without the overlapping beginning of the subsequent episode; the final episode amounts to a brief coda, comparable in duration to episode number

one.

Tonally, the refrain chord provides a central reference point from which the episodes depart, and to which they return. In the first episode, the major seventh Ab-G which defines the compass of the refrain chord (considering the lower G in the timpani chord as insufficient in definition to be heard as the real bass) is expanded outward by contrary motion to a ninth, G-A, and transferred up an octave. This ninth returns to the Ab-G seventh in the last bar of the episode (m. 143). The preparation for the next statement of the refrain includes a foreshadowing in the first flute of the second flute's refrain motive, the repeated G-F descent. In fact, the episode's final sonority in m. 143 includes only pitches contained in the refrain chord.

In the second episode the Ab-G seventh expands by contrary motion to a tritone, D-G#, transferred down an octave. The octave transference is accomplished immediately by the first bassoon's G which enters overlapping the final iteration of the refrain. The episode's first phrase ends with a chord containing D_-A-D#-G# (since the first bassoon's G# in m. 147 is isolated in register, and thus retained). The second phrase, in m.152-156, initiates simultaneously a descent of a seventh in the upper part and an ascent of a seventh in the bass. The descent picks up from the second flute's F at the end of the refrain, and achieves G# (first bassoon) in m. 156, making explicit the octave descent that was made abruptly at the beginning of the episode. The bass ascent arrives at B (second bassoon) in m. 156, and then continues via an octave adjustment to the C# in m. 157, where the descent of the upper part also culminates on the first bassoon's G natural. In fact, the sonority at the end of m. 157, C#-G#-D-G_, transposes the sonority of m. 151 down a semitone, and in doing so once again prepares the next statement of the refrain, since the end of m. 157 exposes the major seventh Ab-G. It remains only to lead the C# bass down to Ab, which is accomplished via the A# in m.158. The refrain chord returns in m. 159 with an

octave transference.

The first three bars of episode three are merely a prolongation of the refrain chord. In m. 167 two of the refrain chord's three superimposed perfect fifths, Ab-Eb and C-G, are led up chromatically in the second and alto flutes to form a structure A-C#-E-G# which provides a harmonic alternative for the remainder of this episode (note that the Ab-Eb and C-G fifths are the ones that between them include the Ab-G outer compass of the refrain chord). The activity of the first flute in m.168-178, circling around A and A#, ascending to the high point B in m. 172, and eventually descending to G in m. 177-178 clearly relate this section to the first episode. In m.177-178 Stravinsky dramatizes the conflict between G and G#, the upper voice motion which sets the episode apart from the harmonic material of the refrain. A similar struggle follows between C and C# in the third and alto flutes in m. 179-182. At the end of the phrase (m. 183) the C# and G# taken up in m. 168 have fallen back to the refrain's C and G, but still over the A natural in the bass. The next phrase (m. 185-192) begins as a variant of the beginning of the episode, though subsequently the bulk of the first phrase is omitted. Comparing the first flute in m. 186-187 with m. 177-178 one observes that the conflict between G# and G_ has been removed, allowing the G_ to go unchallenged. The conflict between C# and C_ in m. 179-182 is resumed in m. 188-191. The phrase ending in m. 192 is a close variant of that in m. 183. Again the C#-G# fifth has fallen to the C-G fifth, and the A is again restated as the real bass. As in the earlier episodes, the return of the refrain chord is prepared by a preponderance of common tones, including D# and A# in addition to C and G. It remains only for the bass to fall from A to Ab which coincides with the arrival of the final refrain.

In the last episode, the second flute's G-F refrain motive, the only linear motion found in the refrain, is echoed by the second bassoon over a D# bass (m. 199). This D# becomes the final

bass note of the *Interlude*, and together with the C# above it, prepares a descent to the C#, foreshadowing the opening bass of the *Rex Tremendae*.

Rex Tremendae

The opening of the *Rex Tremendae* immediately presents this movement's important background motion in the womens' voices, albeit in reverse order, A# and D# falling to G# and C#. The falling G# to C# fifth in the basses confirms C# as the real bass of the phrase. The chords which follow in the flutes and strings transfer the C# down to the lowest register of the orchestra, and dramatic emphasis is given by the tripled C# in the chorus. The C# bass ascends to D# as the string and flute chord changes. A second two-chord progression in the flutes and strings reiterates the C# to D# bass ascent. Through these first five measures, the sopranos make a stepwise descent from their opening D#, arriving at A in m.206, and finally at G# in the next bar, connecting with the altos' G# from the first measure. This G# in a sense arrives at the wrong time, when the contrabasses have already pushed up to D#. Nevertheless, the important pitch motion of the movement has been clearly established. The local motion from C# to D# in the sopranos in m. 206-7 amounts to motivic saturation, and one possible interpretation of their high G in m. 207 is as a registrally displaced chromatic neighbor to G#.

The second choral phrase (m. 210-13) begins by asserting C# in all four voices, encompassing three registers. The basses' C# soon ascends to D# before cadencing on F. The sopranos' C# begins a second stepwise descent in m. 210, passing through C natural in m. 212, to A# and A in the next bar. Again, the upper and lower structural voices are displaced temporally from one another, the sopranos' A# arriving too late to sound against the basses' D#. The

sopranos' final A natural in this phrase connects with their final G# in m. 207, initiating what will become a chromatic passing motion up to A#. The reiterated chords in the strings and flutes return in m. 214-15 making a cadence over a C# bass.

It is in the third choral phrase (m. 216-221) that the structural ascent is finally made from the C#-G# fifth to the D#-A# fifth, an event dramatized by the contrasting treatment in this phrase, the womens' voices alone in unison against the solo trumpet. The ascent is made indirectly, the compound melodic writing in the womens' voices describing a descent in similar motion through the interval succession G-F, F#-D#, E-C#, D-C, this last minor seventh contracting by contrary motion to D# and A#, the D# taken by the trumpet, and the A# immediately preceded by G#.

The male voices join in for the final choral phrase, the basses descending from F in m. 222 to D# in 223 which they hold until it is taken over in m. 226 by the contrabasses. The basses' initiating F takes up from their cadential F in m.213. The sopranos meanwhile make a third and final stepwise descent, this time from E (m. 222) trough D# and C to their cadential A#. Finally the basses' D# and the sopranos' A# sound contemporaneously. The final flute and contrabass chord confirms D# as the bass.

Beginning with the *Rex Tremendae*, the latter movements of the *Requiem Canticles* contain many more tonal references than the earlier ones. Over the course of the *Rex Tremendae*, *Lacrimosa*, *Libera Me* and *Postlude*, these tonal references coalesce and assume structural significance. Consider in the *Rex Tremendae*, the whole tone string and wind chord built over the C# bass in m. 206. It returns in m. 207 unchanged except for the registral position of the D#, and again in m. 215 with the cellos' B shifted up an octave. The disposition of the chord suggests a possible hearing as an altered C# dominant 7th, and indeed, the choral music in

m. 210-11, which follows the first statements of these chords strongly suggests F# minor tonality. A shift of a minor third occurs at the end of m. 211 to a sonority interpretable as an Eb major seventh chord, which supports the important D# bass at this moment. Another minor third shift occurs at the end of m. 212 where suddenly Stravinsky exposes a C major triad in six-four position. In the next bar this chord takes on a dominant 7th quality before cadencing on the whole tone chord built over the F bass at the end of m. 213. When the flute and strings arrive at the C# whole tone chord in m. 215, this preceding momentary tonal reference to C and F is enough to impart to the C# whole tone chord the flavor of an Italian sixth, though it does not progress as such. Interestingly, the C# whole tone chord returns fleetingly in m. 217, where its progression to the G#-D# perfect fifth makes it sound in retrospect as though it is comprised of factors of a D# dominant 7th chord. This is the last appearance of the C# whole tone harmony in the movement, but not in the piece as a whole.

Lacrimosa

The formal structure of the *Lacrimosa* helps to clarify the voice leading. The movement is divided into three strophes of two phrases each, followed by a codetta on "*amen*". The second phrase of each strophe differs from the first by including activity in place of stasis in the bass line played by the harp and soli contrabasses, and also in the absence of the striking octaves in the other strings (m. 233 and 236) which articulate the end of the first phrase of each of the first two strophes. This phrase structure aids in hearing a chromatic ascent from B to C in the bass from strophe one to strophe two. This ascent is foreshadowed in the first phrase of strophe one by the minor ninth leap from the contrabasses' B to the cellos' C, each bass note anchored by its upper fifth in the contralto. In its ascent the bass moves in a pattern of alternating thirds, the B leaping

up to D in the second phrase of strophe one (m. 235) and C leaping up to E in the second phrase of strophe two (m.245).

A surprising development occurs in the third strophe. Here the bass line (harp and contrabasses, m. 250) proceeds up to D#, anchored by its upper fifth A#, connecting to the structural D#-A# fifth which closes the *Rex Tremendae*. The bass line now immediately descends in the bass trombone through a passing C# to C, the first time the bass trombone has departed from various decorations of G. The importance of this descent to C is further underscored by the omission of the harp and contrabasses (or any other bass) at m. 255, where we would expect them to enter with the contralto and flutes to begin the second phrase of strophe three. Through this avoidance of the bass register the low C is thus retained until its reiteration by the cellos in m. 256, and it returns again in m. 260 as the cadential bass note in the strophe, anchored by its upper fifth, after an arch-like bass line in the intervening measures.

The long ascending framework of parallel fifths which began in the *Prelude* thus appears to reach its upper extent in the *Rex Tremendae*, stopping just short of attaining the octave of the F-C fifth asserted in the *Prelude*. Instead of continuing the ascent, the D#-A# fifth attained in the *Rex Tremendae* falls in the *Lacrimosa* to the C-G fifth. When the descent actually occurs, in m. 254, the approach chord in the trombones is the virtually identical to the C# whole tone chord which figured so prominently in the *Rex Tremendae*. It is difficult in the context to hear much tonal implication here, either of a C# dominant or an augmented sixth chord, although the final sonority in m. 254 is stable and centered on C. The C# harmony returns a final time at m. 263 in the codetta. Even the contour of the preceding contralto melody refers back to the chord's previous occurrence. This time the contralto's melodic tonicization of C together with the suggestion of Ab major harmony would surely impart to the C# harmony in m. 263 the character

of a French sixth if the harp were not marked staccato and the ear had more time.

In any event, this final return to C# in the bass does not descend directly to C. Instead Stravinsky delays the arrival of C by interpolating the harmonic material of the trombones at the very end of the *Lacrimosa*. Here the final sonority, by virtue of the augmented octave G-G# and the E# which precedes G in the bass, is easily heard as a kind of G dominant sonority, imparting to this moment the quality of a half cadence, and a clear sense of dominant to tonic resolution with the arrival of the bare C-G fifth which opens the *Libera Me*.

Two more details are worth mentioning in connection with the *Lacrimosa*. The insistent G's of the bass trombone which punctuate the phrase structure are one. The other is the overall contour of the contralto melody, which makes a gradual and sinuous ascent from F in m. 229 to B at the high point in m 252, and descends just as sinuously to close on G, immediately preceded by C a fifth below (the final A is clearly not part of this structural upper voice, by virtue of the compound melodic writing in the contralto part). These can be viewed as tonal elements, further supporting a hearing of the movement harmonically as a prolonged approach to C. The rising tritone F-B in the contralto can be interpreted tonally as outlining factors of a G dominant seventh chord whose root returns repeatedly in the bass trombone, or alternatively as factors of an augmented sixth chord relative to the longer term goal of F as a tonal center. Both interpretations are suggested in the musical surface.

Libera Me

Little effort is required to reduce the voice leading in the *Libera Me* to its essentials. The

initial C in the bass moves up to D at m. 269, following a lower neighbor decoration. The D ascends to D# in the next measure, and to F in m. 274, preceded by its upper neighbor G. This is the furthest extent of the bass ascent, and in outlining the fourth between C and F foreshadows the tonal motion from the end of the *Libera Me* to the *Postlude*. The structural bass notes involved in the ascent are all supported by upper perfect fifths. After a tentative move in m. 275, the bass falls back to D# conclusively in m. 278, where the harmony parallels that in m. 270. The D# then descends to C# at the end of m. 283 where the C# whole tone chord from the *Rex Tremendae* makes its penultimate appearance, though this time with the addition of a foreign tone, B#.

In light of what follows, it seems plausible to think of this chord as an interpenetration of an augmented sixth chord built above the C# bass together with its resolution (in a sense, the presence of the foreign tone B# permits a hearing of the C# harmony as an augmented sixth relative to an F tonic rather than as a C# dominant relative to an F# tonic). Indeed, the harmony which follows resembles, enharmonically, a diminished triad built on the leading tone to F which also contains the note F; in other words, an interpenetration of dominant and tonic harmonies in an F tonality. The final chromatic descent in parallel octaves which ends the *Libera Me* is broken only by the final appearance of a C# dominated harmony, this time a C# major triad with added ninth in second inversion. The entire progression of harmonies from m. 284 to the end of the movement creates a convincing impression of the final C as the dominant of F, thus preparing for the pedal F which stabilizes the opening of the *Postlude*.

The role of C# as an upper leading tone to C is thus worked out extensively through the last three vocal movements, even used for its tonality defining properties. It is worth noting how this motive penetrates the uppermost structural voice in the *Libera Me*. Beginning from G, the

upper fifth to C, the sopranos decorate first A (m. 267) and then C (m. 273) with upper chromatic neighbors. Both are tones of the tonic triad in F major, which perhaps contributes to this movement's culminating clarification of F as tonic. The A returns in the uppermost voice in m. 274, and in m. 278-284 the sopranos reiterate the upper chromatic neighbor motion from C# to B#. Thus most of the upper voice activity in the *Libera Me* is occupied in motivic upper chromatic neighbor motions embellishing tones of the F major triad.

Postlude

There is seemingly little to say regarding voice leading in the *Postlude*. Whereas in previous movements, particular the later ones, Stravinsky skillfully cuts tonal implications out of serial cloth, here tonal and non-tonal elements come into direct opposition, or perhaps it would be more correct to say that they are directly superimposed upon one another. The long sustained pedals in the horn arpeggiate through the tones of the F minor triad providing a stable point of reference against which toll sounds which invoke bells by means of richly painted harmonies whose derivation is apparently purely serial.

The exact serial procedures followed in this last movement require comment. Previous writers on the *Requiem Canticles* have assumed that the *Interlude* is the only movement in which Stravinsky used both rows simultaneously. In fact, the two rows are combined in the *Postlude* as well, which helps to explain why this movement has proven hitherto refractory to serial analysis. The successions of quarter note chords scored for vibraphone and orchestral chimes doubled by celesta are built from a simultaneous unfolding of four different set forms, two forms of Row 1 and two forms of Row 2. In the passage from m. 290-92 for example, the four set forms used are

the complete P^0 and I^0 forms of both rows. The initial note of all four of those sets is F, and so the first note of each set is represented by the sustained F in the horn. In the passage from m. 295-97 the four set forms used are the R^0 and RI^0 forms of both rows. The third passage (m. 300-302) combines the P^0 and R^0 forms of both rows. Examples 17a, b and c illustrate the derivation, and indicate both ellipses and note alterations that Stravinsky has introduced. As for the chords scored for piano, harp and flutes in m. 290, 294, 299 and 304-5, their serial origins will have to remain for the time being obscure.

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Discography

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3. Stravinsky, Igor. *Requiem Canticles*. On *Opus Stravinsky: Choral Works*. Columbia Records 36940 (74078).