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Stravinsky's Serial "Mistakes"

JOSEPH N. STRAUS

In 1952, after the completion of *The Rake's Progress*, Stravinsky embarked on a remarkable voyage of compositional discovery.¹ His late works differ from his earlier ones in striking and profound ways. During the final two decades of his life, every major work was almost shockingly new, right down to original, and ever-changing, principles of structural formation. The works in this period describe a succession of compositional firsts, including his first works to use a series (*Cantata* [1952], *Septet* [1953], *Three Songs from William Shakespeare* [1954]); his first fully serial work (*In Memoriam Dylan Thomas* [1954]); his first work to use a twelve-tone series (*Agon* [1954–57]); his first work to include a complete twelve-tone movement ("Surge, aquilo," from *Canticum Sacrum* [1956]); his first completely twelve-tone work (*Threni* [1958]); his first work to make use of twelve-tone arrays based on hexachordal rotation (*Movements* [1959]); his first work to use the verticals of his rotational arrays (*A Sermon, A Narrative, and A Prayer* [1961]); his first work to rotate the series as a whole (*Variations* [1965]); his first work to rotate the tetrachords of the series (*Introitus* [1965]); and his first work to use two different series in conjunction (*Requiem Canticles* [1966]—his last major work).

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The pattern of innovation is remarkable, persistent, and unprecedented. I can think of no other major composer, at a comparably advanced age and pinnacle of recognition and success, who so thoroughly altered his compositional approach, or whose late works differ so greatly from his earlier ones. While there is some truth in the cliché that Stravinsky always sounds like Stravinsky, nonetheless the late works differ radically from the earlier ones at every level, from their deep modes of musical formation to the rhythmic and intervallic details of the musical surface. Furthermore, Stravinsky's late works are not only

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¹ I am grateful to friends and colleagues who read earlier drafts of this article and offered useful suggestions and criticisms: Christoph Neidhofer, Lynne Rogers, Claudio Spies, and David Smyth.

radically different from the earlier ones, but are highly individuated from each other as well. There is no major work in this period in which Stravinsky did not try something new.

It should come as no surprise, then, amid this ceaseless musical quest to learn and discover new ways of writing music, that various kinds of "mistakes" occur. Sometimes, these apparent mistakes involve inconsistencies in the precompositional plans and charts that Stravinsky relied on in all of his music from *Threni* on. More often, they involve discrepancies between precompositional plan and compositional realization: there are notes in the published scores that contradict serial expectations. Contradictions of this kind—notes in the published score that are "row-incorrect"—are a persistent feature of music by all serial composers.² Table 1 contains a comprehensive list of serial mistakes in Stravinsky's late music.³ (See Appendix.)

These apparent errors are of great interest for two reasons. First, the vital task of establishing authoritative, critical editions of Stravinsky's music still awaits us. There is no composer of comparable stature whose published works are in such bad shape, so corrupted by errors

² See Edward Cone, "Editing Schoenberg's Twelve-Tone Music," *Journal of the Arnold Schoenberg Institute* VIII/2, 141–57, and Ethan Haimo, "Editorial Responsibility and Schoenberg's Troublesome 'Misprints,'" *Perspectives of New Music* XI/1 (1972), 65–75, for discussions of the problem in Schoenberg's music. Both authors agree that serial deviations require close scrutiny by editors, and Haimo's conclusion is uncompromising: "I believe that a thorough examination of serial inconsistencies in Schoenberg's twelve-tone works would reveal that the vast majority of them would make more sense in the global and local spheres when corrected" (p. 154).

³ I have tried to make Table 1 as complete as possible, but some serial mistakes have doubtless eluded me. The sketch and manuscript evidence referred to is taken from Karen Grylls, "The Aggregate Reordered: A Paradigm for Stravinsky's *Requiem Canticles*" (Ph.D. dissertation, University of Washington, 1993); Susannah Tucker, "Stravinsky and His Sketches: The Composing of *Agon* and Other Serial Works of the 1950s," (Ph.D. dissertation, Oxford, 1992); Christoph Neidhofer, "An Approach to Interrelating Counterpoint and Serialism in the Music of Igor Stravinsky, Focusing on the Principal Diatonic Works of his Transitional Period" (Ph.D. dissertation, Harvard, 1991); private communications from Christoph Neidhofer, Lynne Rogers, and David Smyth (for which I am extremely grateful), and my own study of the relevant documents housed at the Paul Sacher Foundation in Basel, Switzerland. Sketches and manuscripts are identified by their microfilm number provided by the Sacher Foundation. Recordings by Stravinsky, or made with his collaboration by Robert Craft, always conform to the published score, unless otherwise noted. Some mistakes included in Table 1 were identified previously in Tucker, op. cit., Charles Wolterink, "Harmonic Structure and Organization in the Early Serial Works of Igor Stravinsky, 1952–57" (Ph.D. dissertation, Stanford, 1979), and Norbert Jers, *Igor Stravinskys Späte Zwölftonwerke (1958–1966)* (Regensburg, 1976). In *Canticum Sacrum*, many errors in the orchestral score appear correctly in the piano-vocal score—these are detailed in Wolterink and I have not listed them here. I have included mistakes of omission (a note of the series is left out) and ordering (notes of the series appear out of order) only if these are of special interest or appear easily correctable. Deviations of this kind, although not common, occur often enough in late Stravinsky to seem more like stylistic traits than errors susceptible of correction.

and mistakes of all kinds.⁴ Any critical edition of Stravinsky's later works will have to come to terms with their occasionally inconsistent relationship to the precompositional plans on which they are based. Second, these errors reveal a great deal about Stravinsky's compositional process, about the ways in which he constructs and deploys his materials. They are the exceptions that prove and illuminate his compositional rules.

One might take any of three possible attitudes toward inconsistencies and discrepancies in the published scores. First, one might imagine them as fortunate accidents. They were not part of Stravinsky's original conception, but they nonetheless form part of a finished compositional fabric. Stravinsky wrote the row-incorrect notes himself and presumably heard and liked what he had written. He often confirmed them in a series of sketches, drafts, and manuscripts, and in the published scores that he proofread. In addition, the wrong notes are almost always enshrined in recordings made by the composer or under his supervision. In this view, the serial deviations were not recognized as such by the composer, but should nonetheless be accepted as part of a definitive final version.

Alternatively, one might suspect that discrepancies between the serial charts and the music were not unrecognized accidents at all, but deliberate deviations from serial regularity, the willing and witting departure from a precompositional plan for the sake of other musical values. The row-incorrect notes may compromise the serial plan, but create other kinds of appealing musical patterns and structures. In this view, Stravinsky was fully aware of the row-incorrect notes, and embraced them.

Finally, one might consider the serial deviations to be true errors, mistakes that the composer overlooked and would have corrected had he been aware of them. In this view, Stravinsky occasionally departed, unknowingly and unwillingly, from his serial plan, and the proper task of performers and editors is to restore his original conception.

It would be tempting to adopt either of the first two attitudes. After all, whatever the serial plans, Stravinsky wrote the notes that actually occur on the scores, and presumably heard them as he did so, both in his inner ear and in the performances that he conducted or supervised.⁵

⁴ The assessment offered fifteen years ago in Robert Craft, "Stravinsky: A Centenary View," in *Present Perspectives* (New York, 1984), 215–31 is still accurate: "What should be placed on the Stravinsky agenda for future generations of music lovers? First, his published music is in an unspeakable condition . . . A 'complete works' must be begun, the variorum edition his publishers promised him" (223–24).

⁵ Craft in "Analyses par Robert Craft," in *Avec Stravinsky* (Monaco, 1958), 103–96 offers a useful caution on relying too heavily on the evidence of Stravinsky's own recordings in evaluating possible mistakes or misprints: "Stravinsky did not have an exceptionally

His own published comments on the subject would seem to bear this out:

I regard my feelings as more reliable than my calculations. . . . Our calculations and our feelings overlap and they may even be congruent. I will persist, nevertheless, and say that I trust my musical glands above the foolproofing of my musical flight charts, though I realize that the flight charts are formed in part by these same glands; and add that I think the tendency which seeks to attribute every factor in a musical composition to a punch-card master plan could constrict the 'free' options of the ear.⁶

An anecdote told by Lawrence Morton about an early, private performance of *In Memoriam Dylan Thomas* would seem to corroborate this: "At one point in the preluding dirge-canon, he paused to say in a conspiratorial whisper, 'Here I cheated the row—I did not like the harmony.'" ⁷ But as Morton goes on to observe, *In Memoriam Dylan Thomas*, in its final published version, contains no deviations from the serial plan, no 'cheating' whatsoever. Stravinsky apparently went back and imposed strict serial consistency on the score.

In fact, Stravinsky virtually always preferred not to cheat, and made vigorous efforts to detect and correct any errors he could find. There is some pertinent anecdotal evidence, as in the following story told by Milton Babbitt:

In late December 1958 Stravinsky came to New York from London. He was to conduct the first performance of *Threni*, but was working on a new composition: *Movements*. Mrs. Stravinsky, Robert Craft, and I were sitting in the living room (as it turned out, anteroom) of the Stravinskys' suite at the Gladstone Hotel waiting for Stravinsky to join us for dinner; he was in the bedroom, doing we knew not what until he suddenly bolted out of the room in his robe, waving a page of man-

acute ear for pitch, nor, by comparison with most full-time conductors, an exceptionally keen ear in detecting wrong notes. Tempo, rhythm, and character received his uppermost attention at rehearsals. Other observers may testify differently about this, but the bulk of the documentary evidence—in recordings made under optimum conditions but still containing very conspicuous errors—supports this statement. Thus, in the composer's first recording of his *Symphony in Three Movements*, the solo cellist at R130 plays in the bass clef, instead of, as written, in the tenor. Stravinsky had rehearsed this exceptionally transparent passage several times and conducted it in concerts without noticing the mistake—which, in fact, he never discovered by himself" (651).

⁶ Stravinsky and Craft, *Dialogues* (Berkeley, 1982), 55–56.

⁷ Lawrence Morton, "Stravinsky at Home," in *Confronting Stravinsky*, ed. Jann Pasler (Berkeley, 1986), 343.

uscript paper, smiling broadly that pixylike smile, and shouting: 'I found a mistake, and the right note sounds so much better.'⁸

Craft corroborates this attitude in his description of Stravinsky's working methods:

Stravinsky dates each sketch and marks each choice of serial route in colored pencils, for the simple reason, he says, that it is otherwise so difficult to check errors, though obviously it is more than that; in fact the manifestation of a powerful compulsion for order.⁹

But we are not dependent on anecdotal evidence for our knowledge of Stravinsky's attitude toward his own precompositional schemes. There is ample documentation that Stravinsky wanted a reasonable serial explanation for every note he wrote in this period. The first kind of documentation is in the scores themselves: from *Threni* on, it is possible to account for every note of every piece with regard to demonstrable and consistent serial schemes. These schemes vary from piece to piece, and sometimes from passage to passage within a piece, but their presence is consistently felt. There are no free passages, no free lines, and no free notes. In this environment, the "errors" that are the subject of this paper stand out in sharp relief as isolated events susceptible to correction.

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A second kind of documentation involves Stravinsky's extensive self-analyses. The compositional sketches and manuscripts for virtually every work in this period contain extensive analytical annotations by Stravinsky, all designed to clarify the serial origins of the music. In cases where the serial derivations are particularly complex, Stravinsky's analytical notations become particularly intense, and provide a useful reference for assessing serial deviations. At the very least, Stravinsky's extensive serial self-analyses suggest the importance he attached to serial derivation. When the compositional going got tough, he usually wanted to be sure he had a reliable serial explanation for what he was writing. The self-analyses were not designed for public consumption, but rather seem to have functioned as a source of self-assurance, a written guarantee of serial correctness.¹⁰

⁸ Milton Babbitt, "Order, Symmetry, and Centricity in Late Stravinsky," *Confronting Stravinsky*, ed. Jann Pasler (Berkeley, 1986), 248.

⁹ Robert Craft, "Introduction" to *Dialogues* (Berkeley, 1982), 14; reprinted from the *New York Times*, June 19, 1966.

¹⁰ In a few instances (*Cantata*, *In Memoriam Dylan Thomas*, and *Septet*, third movement), Stravinsky's self-analyses survive into the published scores.

In measures 27–28 of *Movements*, for example, Stravinsky provides an elaborate serial analysis, which is nonetheless contradicted by one of the notes in the passage (see Example 1). Stravinsky's sketch, reprinted in Example 1a, provides a serial derivation, which I translate as follows: the upper part takes the second (or "beta") hexachord of the I-form of the series, rotates it to start on its sixth note ("V," i.e., the fifth rotation), and transposes it down a semitone ("transpose $\frac{1}{2}$ flat"); the lower part does the same with the first hexachord ("alpha") of the I-form of the series.¹¹ Example 1b traces this derivation, according to which the third note in the lower part should be D $\flat$, not E $\flat$. But it is the apparently incorrect E $\flat$ that occurs both in the sketch, in Example 1a, and in the published score, in Example 1c.

The E $\flat$ is thus incorrect in relation to Stravinsky's explicit design for the passage. It seems wrong also from a more immediately musical point of view, in that it creates an almost immediate repetition of a tone—something unusual in this music—and produces a melodic interval, the major third E $\flat$ –G, that is foreign to the series. It seems improbable that Stravinsky would have gone to the trouble of proposing such a relatively abstruse serial derivation—transposition of series is extremely rare in his music from *Threni* on—only to deviate from it in such an abrupt and obvious way. One might contend, of course, that it is precisely the obviousness of the wrong note that argues in favor of its retention, for surely Stravinsky was aware of the repetition of the E $\flat$ and its intervallic consequences, and nonetheless maintained it, from the first sketch through the final published version. My own inclination would be to honor the compositional intention embodied in the serial self-analysis, but a good critical edition would have to present both possibilities.¹²

A third kind of documentation is found in correspondence between either Stravinsky or Robert Craft and the composer Claudio Spies.¹³ At Stravinsky's request, Spies proofread the scores for *Abraham and Isaac*, *Variations*, *Introitus*, and *Requiem Canticles*—Stravinsky's last

¹¹ This sketch (#110-0386) is transcribed in Christoph Neidhofer, "Analysearbeit im Fach Komposition/Musiktheorie über die *Movements* for Piano and Orchestra von Igor Stravinsky" (Masters thesis, Musik-Akademie der Stadt Basel, 1991), 54.

¹² In the liner note to his recent recording of *Movements* (*Stravinsky*, vol. 11, Music-Masters, 1998, p. 11), Robert Craft writes: "I am grateful to Professor Joseph N. Straus of the City University of New York for generously sharing discoveries of errors in the *Movements* score with me. Unfortunately, I was able to incorporate only one of these in recording the piece: in bar 28, the first note of the piano, left hand should be, and is here, D-flat, not E-flat." Craft, who had uniquely privileged knowledge of Stravinsky's compositional preferences during his serial period, thus confirms my assessment of this particular serial "error."

¹³ Spies has generously made all of his correspondence as well as his annotated photocopies of Stravinsky's manuscript scores available to me. I am greatly in his debt.

EXAMPLE 1. Serial self-analysis: a) sketch with Stravinsky's own serial designations; b) serial derivation; c) *Movements*, mm. 27–28, including row-incorrect Eb

(a)

β V transpose $\frac{1}{2}$ flat

α V $\frac{1}{2}$ flat

(b)

I-form of series	A-hexachord:	B-hexachord:
fifth rotation	E $\flat$ -D-A $\flat$ -B $\flat$ -A-E	F $\sharp$ -G-F-C-B-C $\sharp$
transpose at T $_{-1}$	E-E $\flat$ -D-A $\flat$ -B $\flat$ -A	C $\sharp$ -F $\sharp$ -G-F-C-B
	E $\flat$ -D-(D $\flat$)-G-A-A $\flat$	C-F-F $\sharp$ -E-B-B $\flat$

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(c)

27 28

Piano

four major works—prior to their publication. Spies did an independent twelve-tone analysis, usually without the benefit of any of Stravinsky's charts or sketches, and communicated lists of serial deviations either directly to Stravinsky or indirectly through Craft.¹⁴ In virtually every case, Stravinsky made the changes necessary to bring the music into exact conformity with the apparent serial plan.

¹⁴ These analyses formed the basis of a series of articles—Claudio Spies, "Some Notes on Stravinsky's *Abraham and Isaac*," *Perspectives of New Music* III/2, (1965), 104–26; Spies, "Some Notes on Stravinsky's *Variations*," *Perspectives of New Music* IV/1 (1965),

The interaction of Spies, Craft, and Stravinsky on the subject of a single note in the *Lacrimosa* movement of *Requiem Canticles* illustrates their working methods and Stravinsky's attitude toward serial errors. On September 20, 1966, in preparation for analyzing the work, Spies copied Stravinsky's own serial charts, one of which is reprinted in Example 2. This chart is written in what was by now Stravinsky's standard way. A hexachord, in this case the second hexachord of the retrograde-inversional form of the first of the two series for *Requiem Canticles*, is written across the top. The rows of the chart systematically rotate that hexachord and transpose it to start on the same first note.¹⁵ *Requiem Canticles* uses sixteen such charts, eight for each of its two series (four basic series forms, with two hexachords each), and these sixteen charts originally contained seven errors, that is, seven deviations from their otherwise systematic organization. In each case, Stravinsky either simply miscalculated an interval or wrote an interval ascending when it should be descending, or vice versa. One such error is circled in Example 2—the last note in the fifth row should be B-natural, not B#. Of the seven errors, only two had an effect on the music—the defective portions of the other charts were never employed.¹⁶

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Example 3 reprints a portion of the movement that makes use of the chart in Example 2. The contralto solo is working systematically upward through the rows of the chart. The accompanying chords move equally systematically through the columns of the chart. (The uncircled notes in Example 3 are drawn from other charts, as part of a richly multi-layered counterpoint.) The last note of the contralto solo in measure 235, and the note in Flute II sustained in measures 238–42 are both the correct B-natural rather than the incorrect B# of Stravinsky's original chart. How were these corrections made?

At some time before the end of 1966, Spies identified the errors in the charts and communicated them to Stravinsky. On January 19, 1967,

62–74; and Spies, "Some Notes on Stravinsky's Requiem Settings," *Perspectives of New Music* V/2 (1967), 98–123—published on *Introitus, Variations, Abraham and Isaac, and Requiem Canticles*. These remain, some thirty years after their publication, among the best sources of analytical information about these works.

¹⁵ Arrays of this type have been extensively studied. See the three articles by Spies listed in footnote 14 above; John Rogers, "Some Properties of Non-duplicating Rotational Arrays," *Perspectives of New Music* VII/1 (1968), 80–102; Charles Wuorinen, *Simple Composition* (New York, 1979); Milton Babbitt, "Order, Symmetry . . .," and Babbitt, "Stravinsky's Verticals and Schoenberg's Diagonals: A Twist of Fate," in *Stravinsky Retrospectives*, ed. Ethan Haimo and Paul Johnson (Lincoln, Nebraska, 1987), 15–35; and Robert Morris, "Generalizing Rotational Arrays," *Journal of Music Theory* XXXII/1 (1988), 75–132.

¹⁶ In all of *Requiem Canticles*, only three notes are potentially implicated, and all occur in the *Lacrimosa* movement. Two of these—the B-naturals in the contralto solo in m. 235 and the Flute 2 part in mm. 238–42—are discussed at length in what follows. The third is the F# in the second tenor trombone in m. 244 (indicated in the relevant chart incorrectly as G). All three are correct in the published score.

EXAMPLE 2. One of the rotational arrays from *Requiem Canticles* (based on the second hexachord of the IR form of the series), transcribed and annotated by Spies

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Spies wrote to Craft identifying two errors in the *Lacrimosa* movement (“I find that there are two very bad errors in the score, and these *must* be corrected for the printed thing”). The first error involves the lower harp note in m. 263—it should be C#, not C.¹⁷ The second error involves the Flute II note in mm. 238–42—it should be B-natural, not B#. This is precisely the point at which the chart was defective. Spies points out that “this B# was corrected to B-natural in the contralto [in m. 235].” Spies is thus reminding Stravinsky that he had already corrected the chart and its linear manifestation in the voice part, and should therefore make the same change in the chord in mm. 238–42.

On January 23, 1967, Craft responded: “Mr. S. says the harp should be C# (not C), but he can’t understand the flute B# and asks you to send him your chart of it.” Five days later, Spies responded directly to Stravinsky, enclosing a copy of the relevant chart and score page: “Since there had been a slight error in your chart *precisely* in connection with the vertical factor that I have called (5) [i.e., the sixth chord on the chart], I presume this error was communicated to Flute II inadvertently. (You will recall that we spoke of this error in your chart in New York, and that *this very same note* had been written as B# for the contralto

¹⁷ The correct C# is present in the sketch reproduced as Plate 24 of Craft and Vera Stravinsky, *Stravinsky in Pictures and Documents* (New York, 1978), 55–56. The sharp sign was omitted in the subsequent manuscript from which Spies worked, and was reinstated, at his suggestion, in the published score.

EXAMPLE 3. Compositional realization of the IRb-chart in *Requiem Canticles*, mm. 235-42

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Ca. Solo

la - cri-mo-sa di-es il - la,

Fl. picc.

Fl. gr. I. II

Fl. alto

Cb. Soli I. II

Arpa

Trbn. I. II ten

Trbn. bas

VI. I. II

Vle. div.

Vc.

235

4

5

7 16

poco marc. con sord.

poco marc.

a 2

poco sf

poco sf

poco sf

in her phrase only 3 measures before.) Now, since that B $\sharp$ was duly corrected to B-natural, I assume that the vertical of which that B-natural is factor should yield B-natural for Flute II. And—I hope you will not think me impertinent for suggesting it—it sounds much better as B-natural, without doubling the contrabass' C.” In a subsequent undated

EXAMPLE 3. (continued)

The musical score for Example 3 (continued) features the following parts and markings:

- Ca. Solo:** Vocal part with lyrics "Qua — re — sur — get, — re — sur — get ex fa — vil — la,". It includes two boxed sections labeled **IV** and **III**.
- Fl. picc.:** Flute piccolo part, marked with a circled **6** and a circled **1**.
- Fl. gr. I. II:** Flute grand staff I and II, with a circled **6** and a circled **1**.
- Fl. alto:** Flute alto part.
- Cb. Solo I:** Contrabasso Solo I part, marked with a circled **240**.
- Arpa:** Arpa part, marked with **I.v.**
- VI. I. II:** Viola I and II part, marked with **a 2** and **poco sf**.
- Vle.:** Violoncello part, marked with **unis.**, **arco**, **pizz. sf**, and **poco sf**.
- Vc.:** Violoncello part, marked with **arco** and **poco sf**.

response, Stravinsky accepts and initials the change. B-natural is thus authoritatively confirmed and appears as such in the published score.

In accepting both the correction of his charts and the correction of music based on them, Stravinsky acknowledges that deviations both within the precompositional charts and between the charts and the music should be treated as mistakes. When Spies identified the apparent error in Flute II, Stravinsky wanted proof that the note was wrong with regard to the charts. He didn't just play the chord both ways and decide which one he liked best. He wanted to know which was serially correct. When the demonstration was complete, again in purely serial terms, Stravinsky made the change. The documentation is not as extensive for all of the corrections suggested by Spies, but the result is almost always the same. Spies identifies serial errors and Stravinsky corrects them.

With this clear sense of Stravinsky's antipathy toward serial mistakes, we turn to *Introitus*, the most error-ridden of all of Stravinsky's late scores. Spies attempted to provide his customary proofreading service, and identified five errors, four of which are corrected in the published score.¹⁸ The problem was that Spies was not able to account serially for the chords that begin, punctuate, and end the piece. These, it turns out, were based on a system of *tetrachordal* rotation that is unique to *Introitus* and of which Spies was understandably unaware. One might wonder why, if Stravinsky was concerned with correcting serial mistakes, he did not provide Spies with the relevant serial charts. Perhaps this indicates some ambivalence on Stravinsky's part, or perhaps a reluctance to divulge certain serial secrets to anyone. Perhaps he felt that if Spies could not detect the errors then they were not worth detecting. Whatever the case, however, *Introitus* is permeated with errors of the same kind that Stravinsky normally corrected in his other scores.

Example 4a contains a transcription of one of Stravinsky's charts for *Introitus*.¹⁹ Stravinsky divides the twelve-note series into its three tetrachords, which he labels alpha, beta, and gamma. Then he systematically rotates and transposes them, just as he normally did with hexachords. In addition, he has circled certain notes, along the main diagonal in the alpha and beta charts and on a more *ad hoc* basis in the gamma chart. These are the notes he intends to use in writing the first three chords of the piece, which are reproduced from the published score in Example 4b, along with Stravinsky's own analytical markings, taken from his compositional sketch of the passage.²⁰

But there are two mistakes. In the second chord, the bass note, taken from the bottom line of the beta chart, should be E, not G; in the

¹⁸ The one remaining error occurs in measure 21, where the viola note should be G#, not A# (as the fifth note of the retrograde ordering of the series). It is not clear if Stravinsky's failure to correct it was an oversight or a compositional choice. This is the only mistake in the non-chordal parts of the piece. It is clearly wrong from a serial point of view, and is just the kind of error that Stravinsky virtually always corrected. Its very obviousness may suggest that his failure to correct it, even after Spies brought it to his attention, is a deliberate compositional choice.

¹⁹ This chart is based on the prime ordering of the series. There are three other similarly organized charts, based on the retrograde, inversion, and inversion of the retrograde. All four charts are reprinted in photographic facsimile in Craft and Stravinsky (1978), Plate 21. Joseph Straus, in "Two 'Mistakes' in Stravinsky's *Introitus*," *Mitteilungen der Paul Sacher Stiftung* IV (1991), 34–36, gives an incomplete account of errors in the charts and the opening chords.

²⁰ Stravinsky's self-analytical sketch is reproduced as Plate 22 in Craft and Stravinsky (1978). In his program note for *Introitus*, Stravinsky writes, "No novelty will be found in the manipulation of the series except, perhaps, in chord structure where, however, it is less a question of seriation than of choice" (Igor Stravinsky and Robert Craft, *Themes and Episodes* (New York, 1966), 63–64. "Choice" refers to the circled notes on the chart, which follow no obvious plan, but there is an unusual aspect of "seriation" that Stravinsky glosses over, namely the tetrachordal partitioning of the series.

EXAMPLE 4. *Introitus*: a) rotational array based on the three tetrachords of the original ("O") form of the series; b) opening chords; c) opening chords corrected

(a)

(b)

M.M. ♩ = 56

canto

2 Tam-tam

basso

Arpa

Piano

$\frac{3}{4}$ $\frac{4}{4}$

α β γ

$\square$ O

sempre non arpeggio

marc. in p

8va

should be C

should be E

(c)

harp

piano

third chord, the alto note, taken from the bottom line of the gamma chart, should be C, not E. It is obvious how these mistakes were made: in reading his chart as he wrote these two chords, Stravinsky erroneously imagined the lowest line to be in bass clef.

If these mistakes were to be corrected in the simplest possible way, the three-chord progression would sound as in Example 4c. I think this is a reasonable correction to make for four reasons. First, there is the evidence of Stravinsky's own attitude discussed previously. When similar mistakes occur in other works of the period, Stravinsky corrects them. Second, there is clear evidence of his intention embodied in the charts, with their carefully circled notes, and in his own serial analysis. As observed above, serial self-analysis is a persistent feature of the compositional sketches and manuscripts underscoring the importance Stravinsky attached to reliable, correct serial derivations.

My third reason for preferring to correct the mistakes is analytical: the right notes make better musical sense. In arrays of this kind, the notes along the reverse diagonal form a harmony related by inversion to the harmony in the first row. The alpha tetrachord, for example, consists of G $\sharp$ -C $\sharp$ -D-C. If you invert those notes around the axis formed by the first and last note, C/G $\sharp$, you get the notes along the reverse diagonal, that is, the notes circled by Stravinsky and used in the first chord of the passage: C-G-F $\sharp$ -G $\sharp$. The two harmonies are related by inversion and share two notes, namely the notes around which they are inverted. When the alpha tetrachord is stated melodically, as it is in the first vocal phrase of the work, a nice correspondence is created between chord and tune. The same relationships would be true of the beta tetrachord and Stravinsky's second chord, were it not for the mistake in clef. As for the third chord, Stravinsky has indicated an intention to use the notes A-A $\sharp$ -F-C, which form a harmony-type that is prominent in the piece, most notably as its last chord. The mistake of clef creates a different harmony-type, one that never occurs elsewhere as a chord.

A fourth reason for making the corrections is that Stravinsky himself did so when repeating the opening chords later in the piece (see Example 5). Although he provides no explicit analysis, Stravinsky apparently derives the chords in measures 32-33 in the same manner as those in measures 1-2. All the notes from those earlier chords are present—those are circled by Stravinsky on the chart in Example 5a. Additional notes are adjoined (apparently the notes along the main diagonal for the first two chords and on a more *ad hoc* basis for the third chord)—I have put boxes around those notes. The two notes that were wrong in measures 1-2 have now been made right.

EXAMPLE 5. Errors from *Introitus*, mm. 1–2, corrected by Stravinsky in mm. 32–33: a) serial chart with Stravinsky's circles and my boxes; b) mm. 32–33 with new notes adjoined and errors corrected

(a)

Serial chart for mm. 32–33. The chart consists of four staves, each with a treble clef and a key signature of one sharp (F#). The staves are labeled with Greek letters: α , β , γ , and a boxed δ . The notation includes various notes, rests, and accidentals, with some notes circled and others boxed. Diagonal lines connect notes across the staves, indicating relationships between them.

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(b)

Musical score for Arpa and Piano. The Arpa part is in the upper system, and the Piano part is in the lower system. The Arpa part is marked "non arpegg." and the Piano part is marked "now correct". The score shows various chords and melodic lines, with some notes circled and others boxed. Diagonal lines connect notes across the staves, indicating relationships between them.

It is still possible to argue for retaining the notes of the published score in their present form. After all, whatever the charts may indicate, Stravinsky wrote these notes himself and, in that obvious sense, intended to write them. Furthermore, the wrong notes are enshrined in the recording made under Stravinsky's supervision, further evidence that, at the very least, he did not dislike them. We are confronted, then, with two contradictory sets of intentions, and a performer and an editor must decide which to honor. On balance, my own strong preference would be to correct the errors as in Example 4c.

There are also mistakes in the O-chart itself but, although they bear on the third of the chords, they are not meaningfully correctable. The second row of the gamma tetrachord should be A-A#-F#-C rather than A-G#-E-A# as Stravinsky has written. After the initial tone A, he apparently went down a semitone to G# instead of up a semitone to A# as the structure of the tetrachord dictates. The cause can only be simple carelessness. If this error were corrected, the circled note in the chart would be C, but if that note replaced A# in the third chord of the actual music, the result would be either an F-major triad (if the clef mistake were also corrected) or an F-major seventh (if it were not). Given the harmonic vocabulary of the rest of the piece, one can assume that neither of these results would have seemed desirable to Stravinsky. The mistakes in the O-chart have no effect elsewhere in the piece and should remain uncorrected here as well.

The concluding chords of the piece pose problems that are not so easily resolved (see Example 6). The work ends with the nine chords shown in Example 6a. These chords are derived from the verticals of the I-chart, shown in Example 6b. The nine chords are verticals 2-4, 6-8, and 10-12, that is, all of the verticals that consist of more than a single note. But there are five wrong notes in the chart, circled by me in Example 6b, and these affect five of the chords.²¹ In addition, Stravinsky makes numerous clef errors in reading his chart. The errors both within the chart and in constructing chords based on it are summarized in Example 6c. Seven of the nine chords in the passage are thus marred by at least one, and in three instances, more than one mistake.

Nonetheless, despite all of these problems, the nine-chord progression has a certain musical logic, and makes interesting connections that would be lost if the errors were corrected (see Example 7). Chords 10

²¹ The mistakes in the alpha tetrachord also affect mm. 46-47. There, Stravinsky presents three chords derived from the reverse diagonals of the I-chart. The second and third chords, from the beta and gamma tetrachords, are correct, but the first chord should be [E, G#, A#, A], not [E, G#, A#, B]. It would be easy to replace the incorrect B with the correct A, and this correction should probably be made.

EXAMPLE 6. Chart and transcription errors in *Introitus*: a) final chords;
b) I-chart with errors circled; c) Stravinsky's chords with errors identified

(a)

2 3 4 6 7 8 10 11 12

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(b)

verticals 1 2 3 4 5 6 7 8 9 10 11 12

and 12 are correct and, as a result of the structure of the array, are related by inversion. The clef mistake in Chord 6 makes it identical in content to Chord 10, and thus links it also to Chord 12. Chords 2 and 4 should be related by inversion, but the mistakes in both chords render

EXAMPLE 6. (*continued*)
(c)

them instead identical in content. Furthermore Chord 2 can be related to Chord 6 by what I call “near-T1,” which means that all but one of the notes moves by T1.²² As a result, the progression as a whole can be understood as a single, coherent harmonic gesture.

Example 8a provides a correct version of the chart and Example 8b a corrected chord progression in which I have tried to maintain Stravinsky’s spacing to the greatest extent possible. This chord progression now has some of the attractive features predicted by the structure of the array on which it is based. Chords 2 and 4 are related by inversion around G $\sharp$, the first note of the alpha tetrachord, and Chord 3 is self-inversional on the same axis. Chords 6 and 8 are identical in content and are also related by inversion around C, the first note of the beta tetrachord, and chord 7 is self-inversional on the same axis. Chords 10 and 12 are related by inversion around G, the first note of the gamma tetrachord—just as they are in the published version of the score—and chord 11 is self-inversional on the same axis. These patterns of repetition and inversional symmetry are built into the structure of the array and almost entirely obliterated in Stravinsky’s faulty realization of it. Nonetheless, Stravinsky’s published version has its own logic, and its own stony, evocative quality, and I would not be in a rush to make corrections in this case.

Part of the difficulty in suggesting corrections for this passage has to do with the depth and extent of the mistakes. Paradoxically, the more serious the errors, the more reluctant an editor must be in correcting them. A single, isolated mistake is easy to correct without greatly affecting the larger musical fabric, except in a subtly enhancing way. But the

²² See Joseph Straus, “A Theory of Voice Leading for Atonal Music,” *Studies in the Structure of Nineteenth- and Twentieth-Century Music*, ed. James Baker, David Beach, and Jonathan Bernard (Rochester, 1997), 237–74 for a discussion of “near-transposition.” In Example 7, transpositions that are “near” are indicated with an asterisk and a dotted line connects notes that do not participate in the prevailing motion.

EXAMPLE 7. Musical coherence in the concluding chord progression: a) the chords; b) connections via transposition and inversion; c) a single coherent gesture

a)

[AA#CD#] [BDE] [AA#CE] [F#A#BC#] [EFG] [F#GAC#] [F#A#BC#] [E#GAA#] [C#D#EG#]

b)

T_0 IC

c)

* T_1 IC

EXAMPLE 8. The conclusion of *Introitus* corrected: a) correct serial chart; b) serially correct chord progression

(a)

(b)

conclusion of *Introitus* is so permeated by serial errors, and these errors have their origins so deep within Stravinsky's conception of the work, that correcting them alters the work dramatically. In correcting them, one is recomposing the work to an uncomfortable degree, and that is more responsibility than an editor or performer normally likes to bear.

Like *Introitus*, *The Flood* has defective serial charts (these are the only two works of which this is true) which affect the music. The problems are confined to the array formed from the second hexachord of the I-form of the series (see Example 9, which reproduces Stravinsky's array and identifies three wrong notes).²³ In the fourth row of the array, the last three notes are two semitones too low, the likely result of a simple miscalculation. The wrong notes subtly change the intervallic content of the linear melodies based on the rows of the array, creating a second 2 and eliminating one of two 4s that occur in all of the other

²³ Stravinsky considers the following his prime ordering of the series for *The Flood*: C#-B-C-F#-D#-F-E-D-B#-A-G-G# (I am indebted to Lynne Rogers for this information). All of the published accounts of this work treat this as the retrograde ordering. I follow Stravinsky's designation in the discussion that follows.

EXAMPLE 9. Serial chart (the Ib array) for *The Flood*

	1	2	3	4	5	6	
I	B $\flat$	C	E	F	G	F $\sharp$	
II	B $\flat$	D	D $\sharp$	F	E	G $\sharp$	
III	B $\flat$	B	C $\sharp$	C	E	F $\sharp$	
IV	B $\flat$	C	B	C $\sharp$	D $\sharp$	G $\sharp$	(Should be D $\sharp$ –E $\sharp$ –A)
V	B $\flat$	A	C $\sharp$	D $\sharp$	G	G $\sharp$	
VI	B $\flat$	D	E	A $\flat$	A	B	

rows. All the other rows of the array form the same hexachord type; the fourth row is different. The last three verticals of the array are also distorted by these wrong notes and the structural relations embodied in verticals of these rotational arrays, most notably their inversional balance, are destroyed.

The verticals from the defective array occur only once in the work, in measures 209–221, as part of a vast exploration of verticals from all of the rotational arrays (see Example 10). As the correct notes lie only two semitones above their incorrect counterparts, it would be easy enough to make these changes, and they probably should be made.

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The defective fourth row of the chart is used melodically at a number of points in the flute/violin melody in the instrumental representation of the flood in measures 399–457. The wrong notes are used consistently in the first half of this movement, and equally so in the large-scale retrograde that comprises the second half. The notes are obviously wrong in a deep sense and would not be difficult to correct. Nonetheless, because they occur so often, and almost always in an exposed melodic position, it seems equally obvious that, whatever may be wrong in their derivation, Stravinsky has affirmed them in the manuscript, in the published score, and in the performances and recordings conducted by him. I am convinced that, if these errors had been pointed out to him before the work was published and performed, Stravinsky would have corrected them. But now, when the wrong notes have been so conspicuously confirmed by the composer, I would be reluctant simply to correct them. Both versions should be made available to performers. As with the concluding chords of *Introitus*, errors that are pervasive, confirmed by repetition, and with their origins in the earliest stages of compositional planning, resist simple or casual correction.

In *A Sermon*, *A Narrative*, and *A Prayer*, similarly, notes that are obviously wrong from a serial point of view are nonetheless stated conspicuously and confirmed by repetition. The passage shown in Example 11 is organized as a double canon. The leader of the first canon is Bassoon I,

EXAMPLE 10. Defective array verticals in *The Flood*, mm. 209–16

2 Bassi Soli

ser - vant, free, That righ - teous man art, as I see, A ship soon thou
Die - ner, trau'n, Die Gna - de den Herrn sollst du schau'n. Ein Schiff wirst du

Gr.C.

Arpa

Piano

8va

210

②

③

④

I

VI.

II

Vle.

should be D#

EXAMPLE 10. (continued)

O mercy, Lord!
What may this mean?
O Gnade, Herr!
Was soll das sein?

2 Bassi
Soli

Gr.C.

Arpa

Piano

I

VI.

II

Vle.

shalt make thee — Of trees light and dry.
bald dir bau'n. Aus Holz, hart und leicht.

215

(8va)

5

6

sempre come sopra

p

come sopra

come sopra

should be E#

should be A

EXAMPLE 11. Serial mistakes corroborated (circles) and corrected (arrows): a) *A Sermon, A Narrative, and A Prayer*, mm. 113–29; b) R-array

(a)

Speaker: Then there arose certain of the synagogue, disputing with Stephen.

Ob. I A: I A: II *f stacc.*

B: I $\text{♩} = 192$ B: II 115 B: III B: IV

Fag. I *f stacc.*

Fag. II *f*

And they were not able to resist the wisdom and the spirit, by which he spake.

Ob. I A: III A: IV A: V (b) (b)

Ob. II A: I A: II A: III *f stacc.*

Fag. I B: V B: VI 120

Then they suborned men, which said, we have heard him speak

I A: VI A: V (b) (b)

Ob. II A: IV A: V

Fag. I B: V B: IV

Fag. II B: I B: II *f stacc.*

EXAMPLE 11. (continued)

blasphemous words against Moses, and against God. And they stirred up

A: VI A: V

Ob. I II A: IV

125 B: III B: II

Fag. I II B: III B: IV

the people, and the elders, and the scribes, and came upon him, and brought him to the council.

A: IV

Ob. I II A: III A: II

B: I

Fag. I II B: V B: VI

(b)

	A-hexachord						R-array						B-hexachord					
I	F	A $\flat$	A	G	F $\sharp$	B	B $\flat$	D $\flat$	D	C	E	E $\flat$	B $\flat$	D $\flat$	D	C	E	E $\flat$
II	F	F $\sharp$	E	E $\flat$	A $\flat$	D	B $\flat$	B	A	D $\flat$	C	G	B $\flat$	B	A	D $\flat$	C	G
III	F	E $\flat$	D	G	D $\flat$	E	B $\flat$	A $\flat$	C	B	F $\sharp$	A	B $\flat$	A $\flat$	C	B	F $\sharp$	A
IV	F	E	A	E $\flat$	F $\sharp$	G	B $\flat$	D	D $\flat$	A $\flat$	B	C	B $\flat$	D $\flat$	D	C	E	E $\flat$
V	F	B $\flat$	E	G	A $\flat$	F $\sharp$	B $\flat$	A	E	G	A $\flat$	F $\sharp$	B $\flat$	A	E	G	A $\flat$	F $\sharp$
VI	F	B	D	E $\flat$	D $\flat$	C	B $\flat$	F	A $\flat$	A	G	B	B $\flat$	F	A $\flat$	A	G	B

which cycles methodically down through the Rb-array and then back up again.²⁴ Its follower is Bassoon II, which cycles down through the Rb-array beginning in measure 122. The leader of the second canon is Oboe I, shifting to Oboe II in measure 121 and the follower is Oboe II, shifting to Oboe I in the same place. This second canonic line cycles through the Ra-array. The motions through the arrays are perfectly systematic and every note is accounted for.

But there are two mistakes, each of which occurs twice (see the circles in Example 11). The B-natural in Oboe II in measure 123 should be B $\flat$, but the wrong note is confirmed in the canonic imitation in Oboe I in measure 126. On the other hand, the correct B $\flat$ is present when the same row of the array is stated in Oboe I in measures 120 and 123 (indicated with arrows). Similarly, the incorrect G $\sharp$ in Oboe II in measure 126 is confirmed by the canonic imitation in Oboe I in measure 129, but heard correctly as F $\sharp$ in measures 119 and 122 (see arrows). These apparent errors are thus simultaneously corroborated and refuted within the same passage. Given Stravinsky's documented attitude toward serial deviations, I would be strongly inclined to correct this passage and render it serially consistent. Nonetheless, the canonic corroboration of the errors gives pause. At the very least, a critical edition should make the serially correct version available to performers.

There are certain kinds of serial errors that are impossible to correct, namely errors of omission. The passage from *A Sermon, A Narrative, and A Prayer* shown in Example 12 is based on the simultaneous presentation of the R and IR forms of the series (see Example 12). A single note is omitted, namely the ninth note of R. Omissions of this kind are rare in Stravinsky's music, and this may well have resulted from inadvertence. If it is a mistake in that sense, however, it is not a correctable one. Where would one insert the missing D? In which instrument? With what duration? It is hard to imagine an editor with sufficient temerity to propose altering this passage to supply the missing D.

In most of the mistakes discussed in this article, and listed in Table 1, we are confronted with conflicts among various kinds of compositional intentions. There are the intentions embodied in the charts, their systematic regularities and the structural principles on which they are based. Then there are the occasionally contradictory intentions embodied in the compositional sketches, drafts, and manuscripts, as well as the published scores and the recordings based on them. It is clear that Stravinsky himself placed a high value on serial consistency. That is the irrefutable sense of the elaborate charts he constructed, of

²⁴ Rows may be presented either in normal or retrograde order—the analytical labels in Example 11 make no distinction.

EXAMPLE 12. A note omitted from *A Sermon, A Narrative, and A Prayer*, mm. 138-41

2-part array

☐ $\boxed{\text{R}}$ F-A $\flat$ -A-G-F $\sharp$ -B-B $\flat$ -D $\flat$ - $\boxed{\text{D}}$ -C-E-E $\flat$
☐ $\boxed{\text{IR}}$ F-D-D $\flat$ -E $\flat$ -E-B-C-A-A $\flat$ -B $\flat$ -F $\sharp$ -G

the careful self-analyses he provides on so many sketches and drafts, and of the near perfect serial accountability of the published scores themselves. That is also the sense of Stravinsky's documented reliance on Spies.

Nonetheless it is uncomfortable to deny a composer the freedom to depart from precompositional plans, particularly when the departures can be shown to have their own musical logic. When critical editions of these late works finally do appear, they must not attempt to gloss over the tensions and contradictions between precompositional plans and compositional realizations. Rather, they will have to present a range of options that corresponds to the range of Stravinsky's demonstrable intentions.

Stravinsky's serial mistakes, by revealing his vulnerabilities, bring us close to the composer. They show him as a man unwilling to play it safe by writing again what he had written before. Instead, they reveal the restless, questing nature of his musical intellect, his willingness to break with the neoclassical conventions of his earlier music, to seek ever new modes of expression within the serial language, and to accept the inevitability of mistakes attendant upon so bold an enterprise. Finally, they confront us with the moving spectacle of a great master at the height of his compositional powers grappling, as if for the first time, with the basic materials of his art.

APPENDIX

TABLE 1
Catalogue of Serial Errors

location and description	sketch and manuscript evidence	comment
<i>Septet</i> , first movement, first measure of Rehearsal #4: viola should have F–G instead of G–A to produce a transposition of the series at T ₅ .	Early sketch (113-0393) and short score (113-0390) support F–G, but an apparently later draft (113-0428) has G–A. Craft (1955) ^a and Craft (1958) simply assume that the wrong notes have been corrected to F–G.	Probably a clef error (the correct notes appear if treble clef in force) or a simple slip. Should be corrected.
<i>Septet</i> , second movement, third measure after Rehearsal #16: viola should have D# instead of repeated C# (eleventh note of passacaglia theme at T ₇).		Note omitted from series, but in a way that makes it seem an actual mistake, and one easy to correct.
<i>Cantata</i> , Ricercar II, 1 measure before Rehearsal #27: voice should have D# instead of D and oboe should have F# instead of F to create series statements.	Wrong notes appear in first sketch (214-0709). In copy of printed score (214-0845), the D is circled and a handwritten note says “D# in series.” Not clear whose hand.	The wrong note in the voice is confirmed by its canonic imitation in the oboe. No obvious reason for deviation. Should be corrected.
<i>Three Shakespeare Songs</i> , “Musick to heare,” 2nd measure of Rehearsal #5, voice: D# and C# should occur in reverse order within four-note series.	No rough sketches for this song. Fair copy dated Sept. 7, 1953 supports printed version (114-0731).	A serial mistake that is obviously intentional because it functions as a madrigalism to set the words “do offend thine eare.” The mistake involves reversing the

^a Robert Craft, “Reihenkompositionen: Vom ‘Septett’ zum ‘Agon,’” *Musik der Zeit* XII (1955), 43–54.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
		order of C# and D#— not an actual change of note. This expressive se- rial deviation has been pointed out frequently in the literature and should obviously be left intact.
<i>In Memoriam Dylan Thomas</i> , song, m. 17, voice, second note: should be B $\flat$, not A $\flat$ (first note of T $_6$ I).	Correct B $\flat$ confirmed in sketches and autograph full score.	Should be corrected.
260 — <i>Canticum Sacrum</i> , m. 81, voice, penultimate note: should be D-natural, not D $\flat$, as part of partial statement of T $_6$ IR.	All sketches and drafts confirm correct D-natural.	Should be corrected.
<i>Canticum Sacrum</i> , m. 112, viola 2, first beat: should be C# tied across from previous measure, not C-natural.		Should be corrected.
<i>Canticum Sacrum</i> , m. 161, bass trombone, second note: C should be re- placed by D $\flat$ tied to next measure. C is incorrect both in relation to the IR-form of the series and the rhythmic <i>talea</i> .	Correct note present in all relevant sketches and drafts except summary sketch (108-0700).	Should be corrected. Indeed, the correct note occurs when the music is repeated (m. 176).
<i>Canticum Sacrum</i> , m. 211, Trumpet I, third note: should be A, not G, as sixth note of I.		Should be corrected.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>Agon</i> , m. 246, third note of cello solo: should be C, not D (eighth note of P).		Should be corrected.
<i>Agon</i> , m. 551, Trumpet 2, last note in measure: should be C $\flat$, not B $\flat$, as part of statement of four-note series.	Notated ambiguously in manuscript full score (122-0088); in manuscript piano reduction (B&H archive), clearly written as C $\flat$.	Should be corrected.
<i>Threni</i> , m. 178, Tenor I, seventh note: should be G, not B (tenth note of R); Bass II, ninth note: should be C $\sharp$, not F (tenth note of T $_6$ R).		Apparently simple mistake in Tenor I (note shifted to wrong ledger line), but confirmed by canonic imitation in Bass II. Should probably both be corrected, but canonic confirmation of wrong note raises some doubt.
<i>Threni</i> , m. 257, Bass II, first two notes should be E–C, not G–E; m. 258, Bass II, second note should be G, not F (ninth, tenth, and third notes of a permuted statement of P).	The earliest sketches (114-0810, 0811, 0812) support the correct notes. The wrong notes appear in subsequent drafts as a result of either a misreading of the bass clef as a treble clef (G and E instead of E and C) or a simple slip from a space to a line (F instead of G).	Should be corrected.
<i>Threni</i> , m. 368, Violin 1: should be A, not G (sixth note of P).	Correct A confirmed in sketch #114-0798, reprinted in Tucker (1992), 59.	Apparent shift of note from space to adjacent line. Should be corrected.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>Threni</i> , m. 378, second note, voice: should be A, not G (second note of T ₁ P).		Apparent shift of note from space to adjacent line. Should be corrected.
<i>Movements</i> , I, m. 28, piano, left hand, first note: should be D $\flat$, not E $\flat$ (third note of the first hexachord of I rotated and transposed at T ₁).	Wrong note confirmed in manuscript (110-0342), but contradicted by Stravinsky's own serial derivation.	Creates an almost immediate repetition of a note and a melodic interval E $\flat$ -G that is foreign to the series. Should be corrected.
<i>Movements</i> , II, m. 59, piano, rh, second eighth note should be F $\sharp$, not F-natural (eleventh note of IR).	F $\sharp$ confirmed in sketch reprinted in Neidhofer (1998), 62.	Should be corrected.
<i>Movements</i> , IV, m. 133, Cello 2: should be B $\flat$ in bass clef (tenth note of R).		Bass clef inadvertently omitted. Should be corrected.
<i>Movements</i> , V, m. 158, piano, third note should be G, not F (third note of second row of Pb-chart).	G confirmed in draft (#222-607).	Should be corrected.
<i>Movements</i> , V, m. 168, second chord, top two notes should be G-A, not F-G (eighth vertical in four-part layering of P, R, I, and IR).	Correct notes appear in a draft described in Spies (1982).	Simple copying error—should be corrected.
<i>Movements</i> , V, m. 180, high grace note should be B $\flat$, not B-natural (sixth note of the sixth row of the Pa-chart).	Stravinsky's self-analysis requires B $\flat$, but B-natural present in sketch #222-633.	Should be corrected.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>Sermon, Narrative, Prayer</i> , m. 56, tenor, third note: should be D, not C (fifth note of the third row of the Ra-chart at T ₁).		Either the note is just in the space adjacent to the correct line, or it was mistransposed from the chart (down a semi-tone instead of up a semitone). Should be corrected.
<i>Sermon, Narrative, Prayer</i> , m. 123, second beat, Oboe II and m. 126, second beat, Oboe I: should be B $\flat$, not B-natural (second note of the fifth row of the Ra-chart); m. 126, first beat, Oboe II and m. 129, second beat, Oboe I: should be F $\sharp$, not G $\sharp$ (fifth note of the fourth row of the Ra-chart).		The passage is a double canon that is highly systematic in its serial organization. The notes are the only row-incorrect notes in the passage, but each error in a <i>dux</i> is confirmed in its respective <i>comes</i> . These should probably be corrected, but the canonic confirmation of the errors makes the situation less than clear-cut.
<i>Sermon, Narrative, Prayer</i> , m. 156, last beat, piano: should be A $\flat$ instead of A (fifth note of the fifth row of the Rb-chart).	Serially incorrect A present in draft reprinted in <i>Strawinsky: Sein Nachlass, Sein Bild</i> , p. 171.	Simple missing accidental. Should be corrected.
<i>Sermon, Narrative, Prayer</i> , m. 159, Trumpet 1, third note: should be F $\sharp$, not F (fourth note of the second hexachord of IR at T ₈).		Simple missing accidental which creates an anomalous near-repetition of F. Should be corrected.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>Sermon, Narrative, Prayer</i> , m. 267, second note, violas: should be G $\flat$ instead of A $\flat$ (fifth note of the R-form of the series amid simultaneous presentation of P, I, R, and IR).		Probably a clef mistake. Should be corrected.
<i>The Flood</i> , arrays: Fourth line of Ib-array should be B $\flat$ -C-B-D $\sharp$ -F-A instead of B $\flat$ -C-B-C $\sharp$ -D $\sharp$ -G. Affects two passages: 1) mm. 212-19, tremolo chords in violins and violas use the defective fourth, fifth, and sixth verticals; 2) mm. 399-455, shared flute/violin melody uses the defective fourth row.	Wrong notes contained in Stravinsky's own row chart (218-0004).	The wrong notes are confirmed in retrograde repetitions of both the chords and the melodies. These are obvious errors, but their persistence in the music and their confirmation through repetition make correction problematic.
<i>The Flood</i> , m. 3, violin 2, top part, first note: should be E, not D (part of twelve-note design derived from circle of perfect fifths).	Derivation of opening chords from circle of perfect fifths is evident in sketch reproduced in <i>Stravinsky: Sein Nachlass, Sein Bild</i> .	Should be corrected.
<i>The Flood</i> , m. 243, piano, fourth note: should be F $\sharp$, not G (fourth note of P).		Simple copying error; piano should continue to double Bass 1. Should be corrected.
<i>The Flood</i> , m. 329, Oboe I, first beat: F should be A (second vertical of the Pa-chart).	Wrong note F contained in all drafts (109-0589, 218-0030, and 218-0083).	Probable clef error in reading from chart. Should be corrected.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>The Flood</i> , m. 329, second beat: G missing from chord; E erroneously doubled (third vertical of the Pa-chart).	G missing and E doubled in all drafts (109-0589, 218-0030, and 218-0083).	Probable clef error in reading from chart. Should be corrected.
<i>The Flood</i> , m. 347, Trumpet III, first note: should be G instead of B (second note of the fifth row of the Ia-chart).	G5 in draft (218-0084), notated in treble clef. B3 in autograph full score (#218-0137).	Probable clef error in reading from chart, or possibly a missing ledger line. Should be corrected.
<i>Abraham and Isaac</i> , m. 36, voice, third note: should be B# instead of B (fourth note of the first row of the Ib-chart).		Probably simple oversight. Should be corrected.
<i>Abraham and Isaac</i> , m. 72, Viola II, last note in measure: should be C or A instead of D (sixth vertical of the Rb-chart).		Possible clef error in reading from chart. Should be corrected.
<i>Abraham and Isaac</i> , m. 87, Violin I: should be B instead of C (second vertical of IRa-chart).		Identified as error by Spies, but not corrected. Should be corrected.
<i>Abraham and Isaac</i> , m. 88, Viola: should be C instead of G# (third vertical of IRa-array).		No evident explanation. Should probably be corrected, but lack of obvious reason for the mistake creates ambiguity.
<i>Abraham and Isaac</i> , m. 155, voice, first note: should be A instead of B (sixth note of the first row of the Ra-chart).		Should be corrected, although it creates no obvious intervallic anomalies.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>Abraham and Isaac</i> , m. 160, cello, last note in measure: should be D instead of E (third note of the fourth row of the Ra-chart).		Should be corrected, although it creates no obvious intervallic anomalies.
<i>Abraham and Isaac</i> , m. 182, viola, tied third and fourth notes: should be G $\sharp$, not G (third and fourth verticals of Ia-chart).		Simple missing accidental. Should be corrected.
<i>Abraham and Isaac</i> , m. 182, cello, fourth note: should be D instead of E $\sharp$ (fourth vertical of Ia-chart).		Error hard to account for, but should probably be corrected nonethe- less.
<i>Abraham and Isaac</i> , m. 184, voice, first note: should be G instead of F (sixth note of the second row of the Rb-chart).		This is the first note in the phrase, a strange place for a mistake of this kind. F is a frequent beginning pitch (it is the first note of P and I) so perhaps this is simply an adjustment in that direction.
<i>Abraham and Isaac</i> , m. 186, viola, third sixteenth-note: should be G $\sharp$ instead of G (third vertical of the Ia-chart).		Should be corrected.
<i>Abraham and Isaac</i> , m. 186, cello, fourth sixteenth- note: E $\sharp$ should not be part of this chord (fourth vertical of the Ia-chart).		Possible misprint for G $\sharp$, on the adjacent space.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>Abraham and Isaac</i> , m. 194, bass clarinet, second note: should be F, not D (first note of the fifth row of the Ia-chart).		Should be corrected.
<i>Variations</i> , m. 73, second chord, horn 3 and piano: should be F#, not A# (second vertical of the Pa-chart, bottom row).		Clef error in reading lowest row of chart. Should be corrected.
<i>Variations</i> , m. 2, Trumpet 3: should be E, not F (vertical #7 from R-chart).	According to Phillips (1984), ^a wrong note present in autograph fair copy at the Library of Congress.	Should be corrected.
<i>Variations</i> , m. 5, trumpet 3, first note: should be C, not E (vertical #10 from R-chart).	According to Phillips (1984), wrong note present in autograph fair copy at the Library of Congress.	Possible clef error. Should be corrected.
<i>Variations</i> , m. 73, piano, left hand: should be F#, not A# (vertical #2 from Pa-chart).	According to Phillips (1984), wrong note present in autograph fair copy at the Library of Congress.	Possible clef error. Should be corrected.
<i>Variations</i> , m. 93, violin, third note: should be F#, not A# (twelfth note of third rotation of IR-chart).	According to Phillips (1984), wrong note present in autograph fair copy at the Library of Congress.	Possible clef error. Creates anomalous near-repetition of A#. Should be corrected.

^a Paul Phillips, "The Enigma of Variations: A Study of Stravinsky's Final Work for Orchestra," *Music Analysis* III/1 (1984), 69–89.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>Introitus</i> , arrays: mistakes in P, R, and I charts. P-chart, gamma tetrachord, second row, last three notes should be A#–F#–C; P-chart, gamma tetrachord, fourth row, last note should be C#; R-chart, alpha tetrachord, second row, last two notes should be F–B; I-chart, alpha tetrachord, second row, last three notes should be G–A–C#; I-chart, beta tetrachord, fourth row, last two notes should be F–B.	Mistakes evident in Stravinsky's arrays, reproduced in <i>Pictures and Documents</i> , Plate 21.	These mistakes affect the chords that begin, punctuate, and conclude the work. The musical consequences of the mistakes in the array are so prevalent that no simple correction is possible.
<i>Introitus</i> , m. 1, second chord: bass note G should be E (P-chart, beta tetrachord, fourth row, first note).	Incorrect G appears in sketch (109-0747) and autograph score (109-0753).	Clef error in reading lowest row of chart. Should be corrected.
<i>Introitus</i> , m. 2: alto note E should be C (P-chart, gamma tetrachord, fourth row, third note).	Incorrect E appears in autograph score and sketch.	Clef error in reading lowest row of chart. Should be corrected.
<i>Introitus</i> , m. 21: viola note should be G#, not A# (fifth note of R).	Identified as an error by Spies and communicated to Stravinsky. The only such error left uncorrected.	A clear, audible mistake, but it is not certain if Stravinsky's failure to correct it was an oversight or a compositional choice.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>Introitus</i> , m. 46: highest harp note should be A, not B (mistake occurs in second row of alpha tetrachord of I-chart).		Should be corrected.
<i>Introitus</i> , m. 50, second chord: G is missing (I-array, fourth row, third note).	G missing in sketch (109-0749) and autograph score (109-0772).	Clef error in reading lowest row of chart. Should be corrected.
<i>Introitus</i> , m. 50, third chord: bass note A# should be F# (I-array, fourth row, fourth note).	A# appears in autograph score (109-0772) and in sketch (109-0749).	Clef error in reading lowest row of chart. Should be corrected.
<i>Introitus</i> , m. 51, first chord: viola A# should be F# (I-array, fourth row, sixth note).	A# appears in autograph score (109-0772) and in sketch (109-0749).	Clef error in reading lowest row of chart. Should be corrected.
<i>Introitus</i> , m. 51, third chord: viola A should be A# (I-array, fourth row, eighth note).	A# appears in sketch (109-0749). Probably also in autograph score (109-0772) but hard to read.	If the viola A is corrected to A#, the complete array-correct chord is present (with G hanging over from the previous chord). It is also possible that the contrabass C# results from a familiar clef error in reading an A# from the lowest line of the array (note that the "correct" A# is itself a result of a mistake in the array). If the bass C# were corrected to A#, then the viola A would have to be C# to create

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
		the complete vertical. The simplest correction is to treat the bass C# as correct and change the viola A to A#.
<i>Introitus</i> , m. 52, second chord: bass note G should be E (I-array, fourth row, eleventh note).		Clef error in reading lowest row of chart. Should be corrected.
<i>Requiem Canticles</i> , Exaudi, m. 72, first chord: bass note G# should be E# (tenth note of IR, as part of four-part array that also includes, P, I, and R).	Incorrect G# present in initial sketch (Grylls [1993], 69).	Clef error in reading from bottom line of chart. Wrong note doubled in Horn I. Both should be corrected.
<i>Requiem Canticles</i> , Exaudi, m. 76: soprano note G# should be A# (first note of R and IR, as part of four-part array that also includes P and I).	Correct A# is present in initial sketch, which also includes Stravinsky's analytical labeling (Grylls [1993], 69).	Wrong note doubled in Harp. Both should be corrected.
<i>Requiem Canticles</i> , Interlude, m. 140, alto flute, third note: should be G#, not G (fifth vertical of four-part array derived from Row 1).		Simple missing accidental. Should be corrected.
<i>Requiem Canticles</i> , Rex Tremendae, m. 213, tenors: fourth note should be F#, not G (sixth note of the fourth row of the Ia-chart).	This was corrected by Spies, and the correction was accepted by Stravinsky (as shown in the manuscript in the Princeton collection), but was not made in the published score.	Should be corrected.

TABLE 1 (*continued*)

location and description	sketch and manuscript evidence	comment
<i>Requiem Canticles</i> , Postlude, m. 294 (second “chord of death”): D# should be D (Row 2, Ib-chart, sixth vertical).	D# present in earliest sketch, although Stravinsky’s own analytical marking identifies D (Grylls [1993], 94).	Presence in the earliest sketch and relative obscurity of the serial derivation suggest that this should be left uncorrected.
<i>Requiem Canticles</i> , Postlude, mm. 299 and 305 (third and fifth “chords of death”): F in these chords should be F# (Row 1, Ib-chart, sixth vertical).	F appears in earliest sketch (Grylls [1993], 94).	This deviation from the chart enhances the prevalent F-centricity of the work and originates in the earliest sketch. Should not be corrected.