Composition with a Single Row Form? Webern's "Schatzerl klein," Op. 18, No. 1

Mark Sallmen

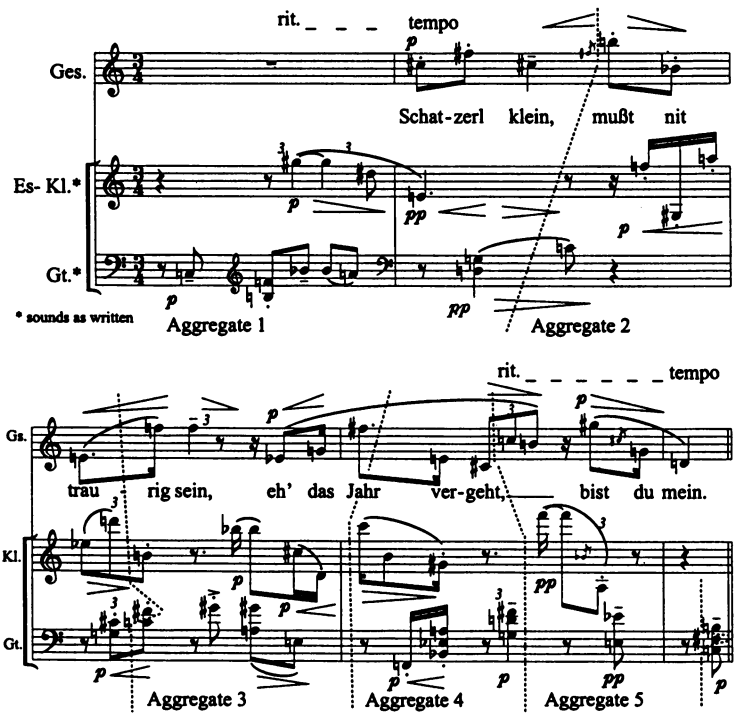
Webern's "Schatzerl klein" for voice, E♭-clarinet, and guitar is one of his earliest twelve-tone serial works. On the surface the row structure is straightforward: the vocal and instrumental lines collaborate to articulate twenty-two consecutive statements of a single row form, T_0P = C-B-F-G♯-B♭-A-D♯-E-C♯-G-D-F♯. The realizations of T_0P contrast with one another in various ways: instrumental partitioning, octave placement, articulation, dynamics, rhythm, the sustaining of some pcs through others, and the simultaneous attack of multiple pcs. (The first five realizations are labeled "Aggregates 1-5" in Example 1.) The variety achieved with T_0P notwithstanding, the straightforward row structure may initially seem disappointing when viewed in the context of Webern's subtle and careful manipulation of multiple row forms in later serial works. This apparent simplicity may partially explain the scant analytic treatment this piece has received in the music-theoretic literature.[1] After all, with only a single row form it seems

---

[1] There is an extensive body of analytical literature that addresses Webern's serial works from Op. 20 onward. See Bailey's 1991 survey, the sources listed in its bibliography, as well as more recent studies: Alegant 1991 on "Das dunkle Herz," Op. 23, No. 1; Mead 1992 on the Variations for Piano, Op. 27; Mead 1993 on the String Trio, Op. 20, Quartet, Op. 22, and Variations for Piano, Op. 27; and Hanninen 1995 on the Quartet, Op. 22 and Variations, Op. 30.

By contrast, there is little detailed analysis of Opp. 17-19. Extant sources either provide only a cursory review or focus on issues other than analysis. Griffiths 1980 lays out a very brief summary of Webern's row treatment in these pieces. Bailey's 1991 large-scale survey of Webern's twelve-tone works provides only minimally more information regarding Opp. 17-19. For example, the discussion of "Schatzerl klein" mentions the dominance of interval classes 1 and 6 in the row, the straightforward row layout in the piece, and the three notes that do not fit neatly into the repeating T_0P scheme (35). Noller 1984 provides a glimpse into Opp. 17-19 by addressing surface features such as stylistic continuity, text setting, meter, rhythm, dynamics, and the presence/absence of "themes" in a few excerpts. Lynn 1992 provides an extensive treatment of the sketches of the early serial works. Also informed by a thorough sketch study, Shreffler 1994 investigates the vocal origin of Webern's twelve-tone compositional technique and

Example 1. Webern, Op. 18, No. 1. Realizations of T_0P in verse 1 (mm. 1-5).



T_0P and the partial orderings of Aggregates 1-5:

T_0P:	C	B	F	G♯	B♭	A	E♭	E	C♯	G	D	F♯
1:	C	{BF}		G♯	B♭	A	E♭	{EC♯}		{GDF♯}		
2:	C	B	F	{G♯B♭}		A	{E♭E}		{C♯GD}			{F♯
3:	CB}		F	G♯	B♭	A	E♭	{EC♯}		{GD}		{F♯
4:	C}	B	F	{G♯B♭AE♭E}				C♯		{GDF♯		
5:	C}	B	F	G♯	B♭	A	{E♭E}		C♯	G	D	{F♯

impossible to explore row combination, pc invariance, and R/T_n/I relationships among multiple row forms. However, the voice and clarinet parts do indeed make veiled references to other row forms, which are easy to hear because of the contrasting timbres of the voice, clarinet, and guitar. These references are not complete, exact (R)T_n(I)P; rather they omit, add, and/or re-order pcs.

Such row references enrich our hearing of the piece in at least three ways. First, we can explore the musical features that help to clarify the veiled references. Second, in contrast to statements of T_0P that average only a half measure in length and that cut across phrase/verse boundaries, these quasi-(R)T_n(I)P-segs unfold over one or several measures, often begin and end at phrase/verse boundaries, and sometimes provide closely-related poetic lines with comparable musical settings. Finally, given multiple row forms we *are* able to study relationships among them—standard practice in Webern's other serial works.

In addition to informing our view of this piece and its relation to other twelve-tone works by Webern, this analytic approach engages recent twelve-tone theory. Most directly perhaps, the song can be viewed as an early forerunner to Starr 1984, in which multiple strata articulate (R)T_n(I)-related twelve-tone rows, both individually and cooperatively. (For example, in the pc string B-C-C♯-G♯-F-D-E-G-B♭-A-F♯-E♭—C-A-F♯-F-G♯-B-C♯-B♭-G-D-E♭-E the underlined pcs articulate a row T_0Q, the non-underlined pcs RT_3IQ, the first twelve pcs T_eQ, and the last twelve RT_4IQ.) Webern's veiled row references demonstrate an *ad hoc* and unsystematic application of this concept, in contrast to Starr's refined and elegant creations composed of complete row forms.[2]

---

connects the early serial works to their pre-serial antecedents in a very convincing way. Helpful comments concerning these pieces also arise in Moldenhauer and Moldenhauer 1978 and Johnson 1999, whose surveys of Webern's complete *oeuvre* have more of a biographical focus.

[2] As shown in Sallmen (2001: 45-47), an excerpt from one of Schoenberg's earliest twelve-tone works, the "Trio" from the *Suite for Piano*, Op. 25, also engages Starr's work. The situation is somewhat different, however, because in "Schatzerl klein" instrumental strata state *complete* row forms collaboratively and *incomplete* ones individually, whereas in the "Trio" the reverse is true; the right and left-hand parts each state complete row forms in canonic fashion and their interaction creates fragments of others.

In a more general way the approach to "Schatzerl klein" also relates to the entire body of research devoted to studying row subsets consisting of pcs that are non-adjacent in the row.[3] Since the non-adjacent pcs that form veiled row fragments are often melodic high- and low-points, the analysis also interacts with the contour reduction algorithm set forth in Morris 1993. As a result of all of this twelve-tone sophistication the song emerges as a compelling composition in its own right, thereby shedding its reputation as merely an early serial "experiment."[4]

But in addition to focusing on the song's twelve-tone manipulations, it is also helpful to view the piece in terms of its historical precedents, for although Op. 18, No. 1 is a twelve-tone work, it continues several trends that reach well back into Webern's pre-serial *oeuvre*. Most obviously, his preceding six opus numbers are also sets of songs, and "Schatzerl klein" is only one of many folk-style poems included in these collections.[5] Further, nearly all of these vocal works feature clarinet accompaniment, such as the *Five Canons on Latin Texts*, Op. 16, scored for soprano, B♭-clarinet, and B♭-bass clarinet, and the *Three Traditional Rhymes*, Op. 17, which employ these instruments plus violin/viola.

---

[3] See for example "multiple-order-function rows" in Batstone 1972, 1973, and Morris 1977; "isomorphic partitioning" in Haimo and Johnson 1984, "multiple appearance relations" in Mead 1988, and the "Mallalieu" and related rows in Mead 1989.

[4] During the discussion of row construction, Bailey 1991 states: "All the early experiments seem, not surprisingly, to have been leading up to the rows of Opp. 20 (1926-27) and 21 (1928)" (16). Admittedly, this section of the book is discussing Webern's rows and not the pieces *per se*, but the omission of Opp. 17-19 from the remainder of the book, where most other twelve-tone movements receive detailed analytic treatment, does nothing to bolster the prestige of the early works. Indeed, Shreffler 1994 states that many early writings on Webern's twelve-tone works "take Webern's later twelve-tone technique as a model, viewing earlier works as experimental and incomplete" (274).

[5] Webern's manuscript does not indicate a poetic source, likely because he considered such "folk poetry" to be common property. This poem appears in Peter Rosegger's *Das Buch der Novellen II*, a series of entertaining stories about rural life, but it is unclear whether "Schatzerl klein" is actually folk poetry or whether Rosegger composed it to emulate the folk style. For a discussion of this topic consult Shreffler (1994: 319-336).

Concerning the vocal line, Op. 18's free mixing of simple and compound subdivisions of the beat with dotted and syncopated rhythms is not unlike many pre-serial songs. And the vocal writing in Op. 18 is merely an extension of the increasing dependence on large pitch intervals in the late atonal songs. For instance, major sevenths and minor ninths appear occasionally in the *Four Songs*, Op. 12, much more frequently in Op. 16, but in Op. 18 fully half of the melodic intervals are a major seventh or larger. Moreover, Op. 18's vocal line is amenable to analytic strategies that have helped to elucidate structure in the pre-serial songs. For example, this paper identifies contour relationships, set-type correspondences, the manipulation of small ordered pitch-class motives, inversional symmetry, and other features that create connections to Marvin and Wason 1995 and Forte 1998. Shreffler 1994 addresses the relationship between the early twelve-tone music and its pre-serial heritage in considerable detail, noting that "Webern's earliest twelve-tone works...are the radical culmination of a previous complex atonal practice" (280).

In addition to these surface musical connections, Op. 18 bears a striking resemblance to pre-serial works in matters of technical detail. Specifically, although the aggregates in "Schatzerl klein" proceed in a more strictly controlled way than in previous pieces, the situation is not altogether different than in some of Webern's earlier pieces.[6] We recall the now-famous quote from *The Path to the New Music* that refers to the *Six Bagatelles for String Quartet*, Op. 9, which were written more than a decade before Op. 18:

> In my sketchbook I wrote out the chromatic scale and crossed off the individual notes...The inner ear decided quite rightly that the [person] who wrote out the chromatic scale and crossed off individual notes *was no fool*.[7]

It is also informative to consider the song's relationship to Gustav Mahler's music, which was well known and greatly admired

---

[6] I am indebted to the anonymous readers for pointing this out and for other helpful suggestions made on an earlier version of this paper.

[7] Webern (1975: 51). For an account of the *Bagatelles* that addresses aggregate structures, see Sallmen 2003.

by both Schoenberg and Webern.[8] For instance, Webern's familiarity with Mahler's works may have contributed to Op. 18's unusual combination of E♭-clarinet and guitar.[9] Although somewhat of an oddity in most circles today, the E♭-clarinet was a more or less standard part of Mahler's orchestra, appearing in eight of his ten symphonies. Moreover, the fourth movement of the Seventh Symphony opens with a guitar strumming an accompaniment to a lilting clarinet melody. This intimate and unusual orchestral texture, within a movement entitled "Nachtmusik" and marked *Andante Amoroso*, depicts a young lover serenading his sweetheart. This connection is particularly appealing because "Schatzerl klein" is also a love song. Does this mean that Op. 18 is a Webernian serenade?

Indeed, the relationship between the three disparate Op. 18 texts "is perhaps explained by an anecdote related by [Webern's] eldest daughter, Amalie. When her father wanted to express special affection for her mother, he would call her 'Minna-Mutter-Königin!'"[10] Wilhemine (Minna) was Webern's sweetheart, the children's mother, and the queen of the family, roles that correspond to the themes of the Op. 18 texts: "Schatzerl klein" (sweetheart); "Erlösung," in which the Virgin Mother weeps over crucified Jesus; and "Ave Regina coelorum" ("Hail, Queen of Heaven"). Webern's own description of the Op. 18 cycle identifies a connection to Goethe's *Faust*:

> ...the Three Songs, the first on a folk-like bridal song, the second on a Wunderhorn song "Erlösung," the third on a Latin Marian hymn, form a complete whole, something in the sense of Dr. Marianus's invocation from the second part of *Faust*: "Virgin, Mother, Queen of Heaven."[11]

---

[8] As identified in Moldenhauer and Moldenhauer (1978: 144), and quoted in Lynn (1992: 67), Webern's regard for Mahler's music is encapsulated in a letter to Schoenberg dated May 24, 1911: "Gustav Mahler and you: there I see my course quite distinctly. I will not deviate."

[9] Johnson (1999: 160-161) also draws a Mahler/Webern orchestrational connection, suggesting a link between Webern's Op. 10, No. 3 and the music associated with the Virgin Mary in Mahler's Eighth Symphony.

[10] Moldenhauer and Moldenhauer (1978: 317); quoted in Johnson (1999: 160).

[11] The translation is from Shreffler (1994: 330), which discusses the Faust connection and other text-related issues in considerable detail.

Johnson 1999 sees the Marian texts of Op. 18, Nos. 2 and 3 as connected to those in Mahler's Eighth Symphony (the "Symphony of a Thousand" scored for orchestra, soloists, and choirs), a work that Webern knew very well.[12] Johnson summarizes these various notions concerning the Op. 18 texts: "...it seems eminently plausible that Webern's affectionate 'Minna-Mutter-Königin!' had its direct origin in Goethe's text as mediated through Mahler's Eighth Symphony" (160).

Overall, these musical, literary, and biographical connections, in combination with the song's intriguing twelve-tone structure, reveal "Schatzerl klein" as a multi-faceted and serious work. The remainder of the paper, which provides a closer examination of the song itself, is in five parts: Part I identifies text-music connections in an overview of the poem and song. Part II studies T_0P in some detail in preparation for Part III, which addresses the veiled row references. Part IV supports the analysis through a study of the sketches, and Part V provides a short conclusion.

I. Introduction to the Poem and Song

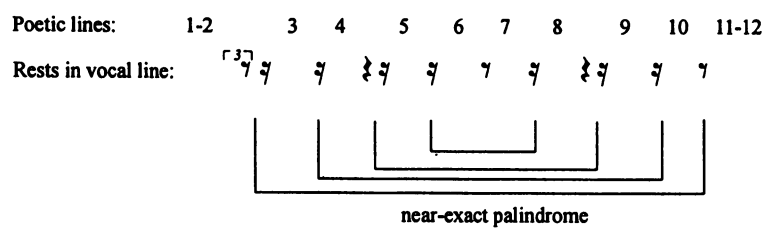
In the poem (given as Example 2), one lover assures the other that they will marry before year's end, drawing an analogy between their romance and blossoming foliage. Verse 1 and the second half of verse 2 focus on the relationship. "Schatzerl" (sweetheart) affirms their love, "Eh' das Jahr vergeht / Bist du mein" establishes a time frame for the wedding, and "Sagt der Pfarrer laut / 'Nehmt's euch hin'" depicts the marriage ceremony itself. The remainder of the poem focuses on the floral part of the analogy, mentioning the blossoming rosemary (one of the first blooms in springtime), myrtle (whose flower is traditionally worn at weddings), and gillyflower.

[12] Webern's association with Mahler's *Eighth Symphony* is documented in Moldenhauer and Moldenhauer (1978: 290-292), Shreffler (1994: 331), and Johnson (1999: 159-160). In 1910 Webern traveled to hear the premiere. For two 1912 performances he performed the celesta part, which introduces and is thereafter linked to the vision of the *Mater gloriosa*. Finally, Op. 18 was composed in September 1925 as Webern (now as conductor) was preparing for a performance of the work in early 1926.

The use of both "Bist du mein" and "grünt der Rosmarin" as consequents to "Eh' das Jahr vergeht" clearly establishes the analogy between the relationship and the blossoming flowers. The poem concludes with a subtler reminder of the analogy: both the couple's love and the plants will blossom "im Haus." In short, verse 1 addresses the relationship, verse 3 the flowers, and verse 2 is split in half (flowers/relationship).

Example 2. Poem and translation; rests in vocal line.

Schatzerl klein,	Little sweetheart	relationship
Musst nit traurig sein,	be not sad—	
Eh' das Jahr vergeht,	before the year is out	
Bist du mein.	you will be mine.	
Eh' das Jahr vergeht	Before the year is out	flowers
Grünt der Rosmarin	rosemary will be green	
Sagt der Pfarrer laut:	and the parson will say:	relationship
Nehmt's euch hin.	"Be Man and Wife."	
Grünt der Rosmarin	Rosemary will be green	flowers
Grünt der Myrtenstrauss	and myrtle too,	
Und der Nagerlstock	and the gillyflower	
Blüht im Haus.	will blossom in the house.	



There are several straightforward ways in which the vocal line of the song supports the poetic structure. The two longest breaks in the vocal line—each a rest of five-sixteenths duration—articulate the poem's three verses. *Ritardandi* also mark these divisions.[13]

[13] The end of verse 1 is also marked by a defining moment for T_0P. Each realization of T_0P contains simultaneously-struck pcs, but the particular pcs

Each verse is partitioned into rhyming two-line units by rests of precisely or approximately an eighth duration, eighths in verses 2 and 3 and a triplet-eighth-plus-sixteenth (7/48 ≅ 1/8) in verse 1. Of these six two-line units, the middle four are further subdivided by sixteenth rests. Overall, this rest scheme creates a near-precise palindrome that centers around the middle of the song, exactly at the boundary between the "floral" and "relationship" halves of verse 2 (see Example 2).

Other details of the musical setting confirm the palindrome. Phrases 1-2 and 11-12 (which set lines 1-2 and 11-12 of the poem) are the only portions of the vocal line with consecutive repetitions of a single *pitch* interval, a series of 5's signaling the beginning of the song and a series of 11's its end, as shown in Example 3a. The succession <–11 –11> at the conclusion of the vocal line can also be viewed as answering <+11 +11> at the very outset of the guitar part. Furthermore, the T_5-related fragments that articulate pc-interval 1 (C♯-D-E♭, F♯-G-G♯) complement the T_1-related fragments that articulate pc-interval 5 (C-F-B♭, C♯-F♯-B), stating Z-related hexachords 6–6[012567] and 6–38[012378], respectively.

Registral extremes at the beginning, middle, and end of the song also contribute to its palindromic structure. The three highest notes in the vocal line are B5 near the beginning on "musst", C♯6 near the end on "Nagerlstock," and C6 in the middle measure (Example 3b). The song's highest clarinet note (B♭6) and the lowest guitar note (E2) happen twice each, once along with the high vocal C6 in the middle measure to create a striking, widely-spaced chord, and again in the final measure. The middle measure also features an unusually consistent rhythm in the clarinet part (alternating dotted eighths and sixteenths) and the only solo clarinet note in the piece (C♯6). Shreffler 1994 suggests that these and other salient features of measure 7, in addition to marking a

---

involved vary from one aggregate to the next. (For instance, consider Aggregate 1's {BF}, {EC♯}, {GDF♯}, Aggregate 2's {G♯B♭}, {E♭E}, {DGC♯}, the coincidence of Aggregate 2's final F♯ with Aggregate 3's {CB}, etc., on Example 1.) Aggregates 1 and 2, as a pair, account for 65 of the 66 order relationships that totally define T_0P. But since G is not struck before D until Aggregate 5, T_0P is not totally defined until that point—perhaps not coincidentally *precisely* at the end of verse 1's vocal line.

midpoint in the song, emphasize "Rosmarin" (rosemary). This is particularly interesting because in a letter written shortly after completing the song, "Webern told Berg that the single word 'Rosmarin' was 'formative' ('richtunggebend') for his conception of the piece."[14]

Three other features help to divide the song in half. First, staccato perfect fourths signal the beginning of each half ("Schatzerl" and "sagt der"). Second, the last vocal note of the first half, A♮ at the end of "Rosmarin," creates a sense of closure because it completes an aggregate; that is, the vocal line of the first half of the song states each pc at least once. Finally, repeated sixteenth notes on the downbeats of measures 8-9 and 11-13 distinguish the second half of the song from the first. The instrumental lines featuring these repeated sixteenths also contain more specific relationships, such as the rhythmic identity and approximate contour inversion between measures 11 and 12, and the rhythmic and pitch-space parallelism between E♭6-D4 and B♭6-A4 in measures 8-9 and 12-13, respectively (Example 3c).

As might be expected, text repetitions are set to similar music. For instance, Example 3d shows that each setting of "eh' das Jahr vergeht" includes E♭4-G4-F♯5-E4. The displacement of this segment from "eh' das Jahr ver-" in verse 1 to "Jahr vergeht" in verse 2 makes room for C♯-D-F♯, a reference to C♯-F♯ at the beginning of verse 1.

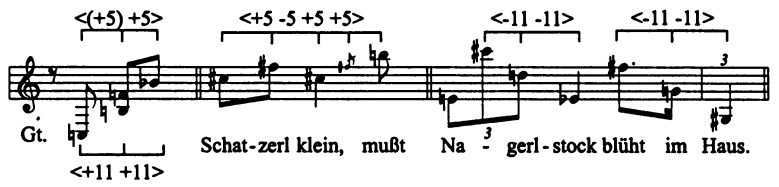
Such word repetition and parallel structure saturate the parts of the poem that mention flowers, and the musical settings support these parallelisms. As shown on Example 4, the settings of "grünt der Rosmarin" and "grünt der Myrtenstrauß" share several features.

---

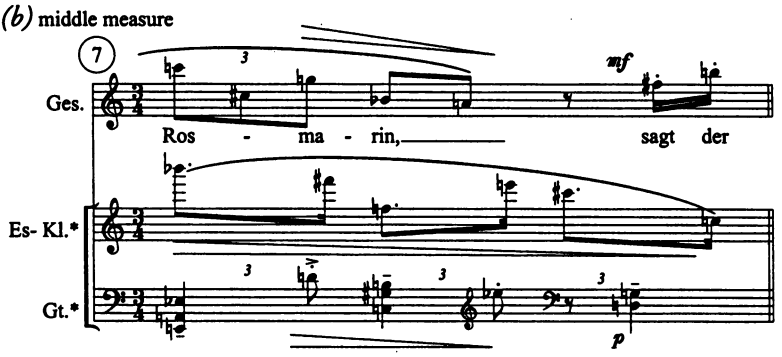
[14] Shreffler (1994: 333). The original letter is dated 8 October 1925 and appears in Rexroth (1983: 78). Johnson 1999 provides a translation of another excerpt from the letter in which Webern goes into more detail about the relationship of alpine flora and musical composition: "The sense of those flora, impenetrable: that's the greatest magic for me. I perceive an inscrutable meaning there. And I can certainly say: to give back musically what I perceive there I've already strived to do for the whole of my life. A principal part of my musical production feeds back to that. Namely: just as the scent and the form of these plants—as a pattern given from God—reaches to me, so I'd like it to be with my musical forms. I wouldn't want that to sound presumptuous; for I add at once: it is a fruitless effort, to grasp the ungraspable" (6).

Example 3. Overview of song.

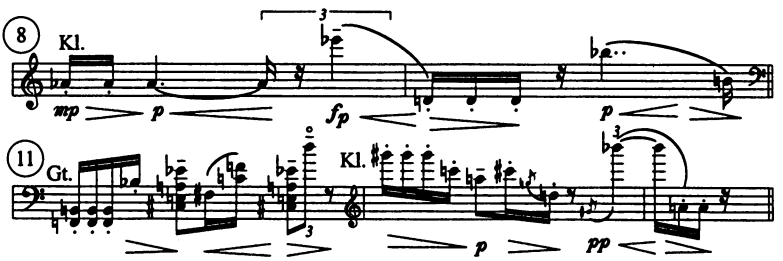
(a) repeating pitch intervals in phrases 1-2; phrases 11-12



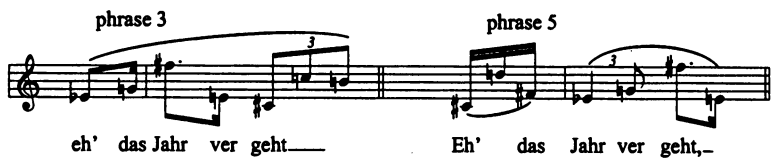
(b) middle measure



(c) repeated sixteenths in second half of song



(d) settings of "Eh' das Jahr vergeht"



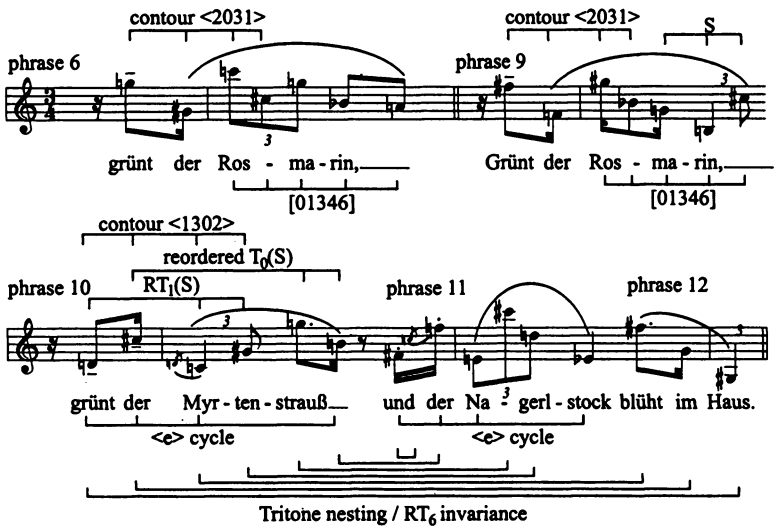
Each is seven notes long, divided into groupings of 2 + 3 + 2 notes over the course of three beats. In each case "grünt der" is set to interval-class 1 and an eighth-sixteenth rhythm; also phrases 6 and 9 begin with contour <2031>, and phrase 10—ignoring the grace note D that repeats the first note of the phrase—states its inversion <1302>. Additional correspondences involve only two of the phrases. Phrases 6 and 9 each begin with a single *tenuto* note followed by *legato* phrasing and set "Rosmarin" with set-class 5-10[01346]. Phrases 9 and 10 share interval-class 2 at the beginning of their second beats, G♯-B♭ at "Ros-" and D-C at "Myr-." In an alternative hearing, phrase 10 *in its entirety* grows out of G-B-C♯ (labeled S) at the end of phrase 9. Specifically, phrase 10's lower and higher strata articulate $RT_1(S)$ and a re-ordered $T_0(S)$, respectively. These parallel strata can be followed quite easily because they are precisely pitch-interval 11 apart.[15]

Phrases 10 and 11 also share relationships that support the parallel poetic lines "grünt der Myrtenstrauß" and "und der Nagerlstock." Each phrase begins with a pair of *non-legato* notes and pitch-interval succession <+11 –13>, and each phrase embeds an <e> cycle. Finally, 14 of the 17 vocal pitches in phrases 10-12 participate in RT_6 invariance, whose characteristic tritone nesting is shown by brackets below the staff. As mentioned below in Part II of the paper, <e> cycles and RT_6-invariance also characterize T_0P.

When "eh' das Jahr vergeht" and "grünt der Rosmarin" are juxtaposed, their musical settings contain compelling relations. As shown in Example 5, phrases 5 and 6 articulate T_6-related instances of 6-3[012356], a relationship supported by aspects of temporal and spatial layout. Temporal orderings correspond at phrase beginnings where C♯-D-F♯ is answered at T_6 by G-G♯-C. Spatial orderings correspond at phrase endings where phrase 5's E♭4-E4-G4-F♯5 (ordered from low to high) is matched by phrase 6's A4-B♭4-C♯5-(G5)-C6. The T_6 relationship extends to the clarinet's G-G♯-C and C♯-D-(B♭)-F♯, which articulate a "voice exchange" with the vocal line. The relationship's clarity is momentarily disrupted

[15] This mixture of set-type relationships, order-preserving pitch(-class) connections, and contour associations recalls in a general way parts of the analyses of Webern's pre-serial vocal works in Forte 1998 and Marvin and Wason 1995.

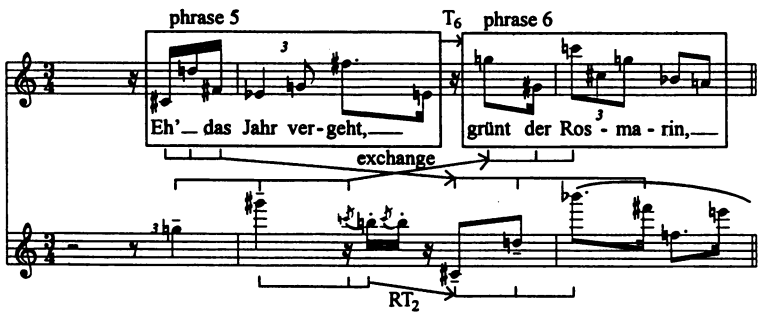
Example 4. Floral settings.



by the clarinet's high B♭, which helps to create the RT_2 relation between G♯-C-B and C♯-D-B♭.

This discussion of textual and musical parallelisms has focused on the vocal line (and a related clarinet excerpt) for the sections of the poem that speak of flowers. In the remainder of the vocal line, which sets the text commenting directly on the lovers' relationship, veiled row references play a central role. We will get to this matter shortly, but it will be helpful to study T_0P in greater detail first.

Example 5. Phrases 5 and 6.



II. T_0P

Webern's most celebrated rows are those that contain clear recurring patterns based on strict adherence to a single generating principle. Consider the RT_6-invariant row of the *Symphonie*, Op. 21, the RI-invariant rows in Opp. 28-30, and the row of the *Concerto*, Op. 24, which is composed of P, RP, I, and RI versions of a single trichordal cell. T_0P and the other early rows are not generally based on such rigid formations, but this does not mean there is nothing of interest. On the contrary, T_0P articulates an ingenious balancing of three features: set-class 3-5[016], partial

RT_6-invariance, and cyclic embedding. This discussion identifies these properties, shows how they are further emphasized in the song by instrumental partitioning, and points out relationships with other of Webern's twelve-tone rows.

Example 6a points out twelve instances of [016] formed by adjacent (or nearly adjacent) pcsets in T_0P.[16] The analysis connects T_0P's final pc (F♯) to its initial ones, a connection that is audible throughout the piece because of the abutting presentations of T_0P. The guitar part relies on [016] even more than this saturation might suggest. Sixteen of eighteen three-note guitar chords articulate [016], each four-note (or larger) chord includes [016], and each harmonic dyad articulates a subset of [016]—[01], [05], or [06].

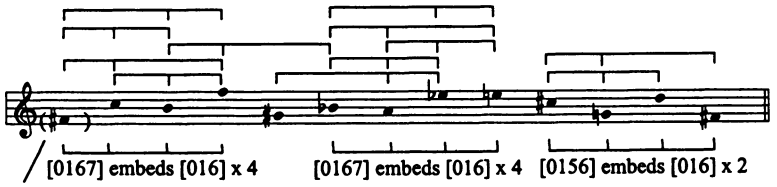
An example of this occurs in the guitar part of verse 3, given as Example 6b. The repetition of particular members of the set class and of particular operators organizes the passage. Asterisks on the top system mark four instances of E-A-E♭, the latter two accompanied by C♯. The pairing of the second and fourth instances with F♯-C-F (boxed on the example) marks the beginning and endpoints of a $T_6 + T_6$ motion. The second system features $T_1 + T_1$ and $T_t + T_t$, each time concluding with C-F-B. (The latter progression omits G from the middle chord, and the former is disguised by the intervening {GF♯} dyad and the delay of the middle chord's E because of the *appoggiatura* F.) The last measure is quite complicated. First, although not supported by identity of pitch-space layout as many other relations in this passage are, it is possible to hear T_2 from C-F-B to D-G-C♯, so that T_2 *away from* D-G-C♯ at the beginning of the excerpt is answered by T_2 *back* to D-G-C♯ at the end. Second, it is possible to hear T_t between F♯-E♭ and E-C♯, an echo of the immediately preceding $T_t + T_t$ progression and the complement of T_2. Finally, C♯-F♯ at the extremes of the final chord recall the pcs of the very opening of the vocal line.

T_0P also features partial RT_6 invariance. Brackets in Example 7a point out tritone nesting within an RT_6-invariant model, and

[16] [016] is a general feature of Webern's early rows but not of the later ones. Specifically, considering row-adjacent trichords, [016] appears at least once in eight of the nine rows in Opp. 17-22, but is totally absent from the rows of Opp. 23-31, save a single instance in Op. 27.

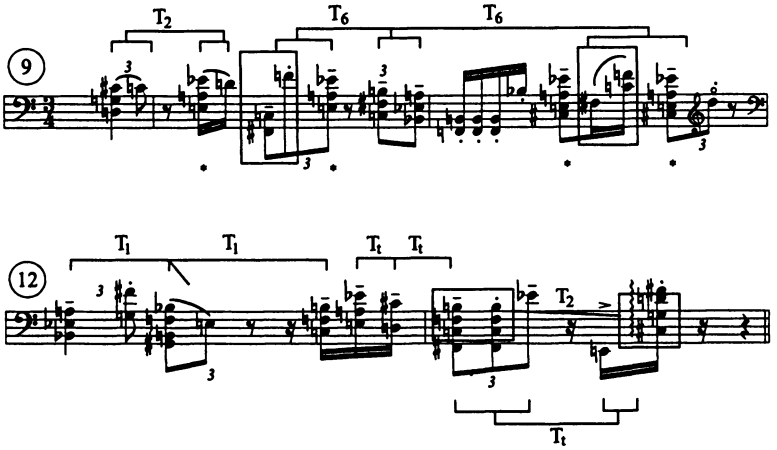
Example 6. [016].

(a) [016] in T_0P



Final pc
of T_0P

(b) [016] in guitar, verse 3.



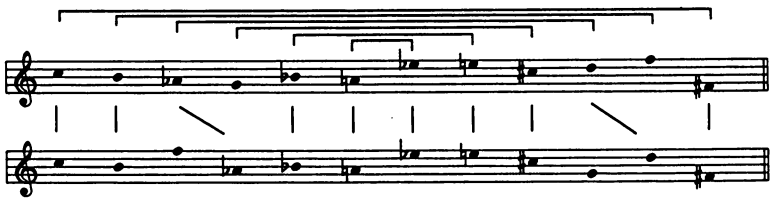
vertical and diagonal lines show the relationship between that model and T_0P. Eight pcs remain fixed at precisely the same order positions in both model and T_0P, and pcs A♭ and D each move by only one order position. As a result, the model and T_0P embed the same *ten*-pc segment. As suggested by the tritone nesting in phrases 10-12 (Example 4 above), RT_6's role within the song is also evident in the vocal line. As a further example, consider the pair of RT_6-invariant segments—each of which articulates [0167]—that set phonetically-similar texts as shown in Example 7b: "Mußt nit traurig sein" and "bist du mein" rhyme, the initial syllable of each ends with "st," and the vowel sounds of the first two syllables are reversed—the former states "u" then "i," and the latter "i" then "u." More specifically, "mußt nit...sein" and "bist du mein" are set to B-B♭-F and its T_9 transposition G♯-G-D, respectively. The clarinet line also includes an RT_6-invariant fragment, which is given as Example 7c. Considered in historical context, the imprecise and *ad hoc* use of RT_6 foreshadows its systematic and pervasive use in the *Symphonie*, Op. 21 two years later. As shown in Example 7d, T_0P and the *Symphonie*'s row share characteristics that are not merely symptoms of RT_6. Both embed the eight-pc series F-A♭-B♭-A-E♭-E-C♯-D, including B♭-A-E♭-E at the middle of each row.

Finally, Example 8a shows the derivation of T_0P from a ten-pc *cyclic* model that articulates the recurring pattern of pc intervals <e65>.[17] Both the model and T_0P begin with C-B-F; the model continues with B♭-A-E♭-G♯ and T_0P with a rotation, G♯-B♭-A-E♭; the dyad {C♯G} follows in both—G-C♯ in the model and C♯-G in T_0P; and finally, both model and T_0P end with F♯. Near its end, T_0P incorporates D and E, the pcs that do not appear in the model. Relationships among the pc intervals in the model create embedded strings of pcs generated by the repetition of a *single* pc interval. Within <e65>, since e+6 = 5 (mod 12), the model embeds a <5>

[17] A considerable body of literature devoted to interval cycles has developed during the last quarter of a century, although it has typically addressed the music of composers other than Webern. For example, Perle 1977a and 1977b, Headlam 1985 and 1990, and Porter 1989-1990 focus on Alban Berg's music, Morris 1992 details a movement by Schoenberg, and Lambert 1990 and 1997 treat the music of Charles Ives. While most sources study repeating patterns of one or two intervals, the recurring three-interval pattern in T_0P calls to mind the longer patterns addressed in Lewin's 2002 article on Perle-Lansky cycles.

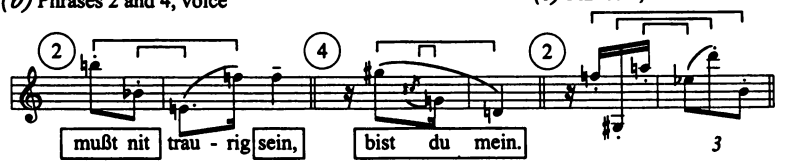
Example 7. RT_6.

(a) RT_6 model and T_0P

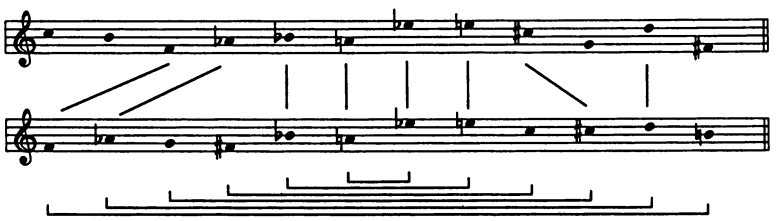


(b) Phrases 2 and 4, voice

(c) Phrase 2, clarinet

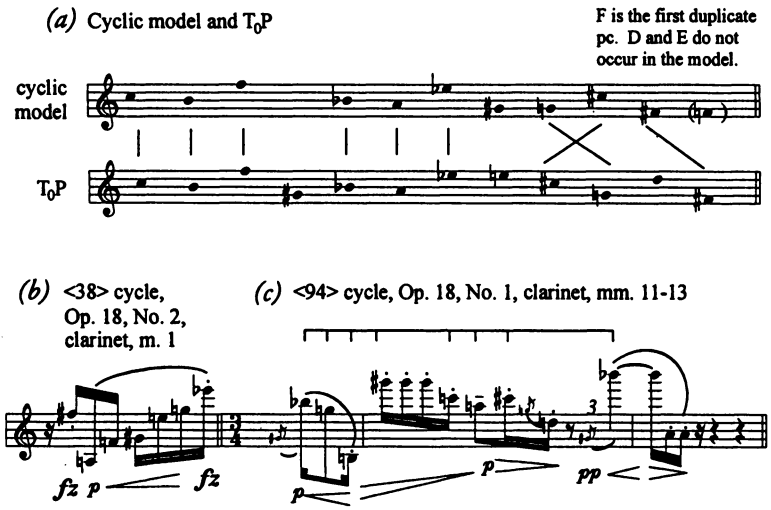


(d) T_0P and the row of the *Symphonie*, Op. 21



cycle fragment: C-F-B♭-D♯-G♯-C♯-F♯. Similarly, since 6+5 = e, the model embeds an <e> cycle fragment: C-B-B♭-A-G♯-G-F♯. T_0P contains both cyclic fragments, with only the ordering of G♯ altered.[18]

Example 8. Cycles.



It is not difficult to imagine that Webern was thinking about such cyclic organization because the row of Op. 18, No. 2 is even more clearly based on a cycle. Example 8b provides the clarinet flourish that articulates a <38> cycle at the beginning of No. 2: F♯-A-F-G♯-E-G-E♭. Extraordinarily enough, the clarinet at the end of No. 1 *prepares* for the flourish at the beginning of No. 2 by stating

[18] These segments are related to one another by pc multiplication by 7, also known as the cycle-of-fifths transformation: C-F-B♭-E♭-A♭-C♯-F♯ = M_7(C-B-B♭-A-A♭-G-F♯).

the complementary <94> cycle, shown in Example 8c, B♭-G-B-G♯-C-A-C♯-B♭. This cycle is embellished by a few pcs, including the G♯ grace notes that precede each B♭.

While musical evidence alone seems sufficient to validate the foregoing analysis, compositional chronology provides further support for the cyclic interpretations. First, Webern's sketches suggest a timetable that, at least in a general way, tends to corroborate the connection between Nos. 1 and 2. Not only were the songs completed only seventeen days apart in September 1925, but a fragmentary draft of the opening of No. 2 appears in the midst of the sketches for No. 1. Moreover, an even earlier draft of No. 2 is based on a row that bears a striking resemblance to T_0P; specifically, the rows' initial hexachords embed T_3-related ordered segments, as shown by the underlining in C-B-F-G♯-B♭-A-... and E♭-D-G♯-G-C♯-C-...[19] Second, musical and historical evidence suggests a connection between T_0P and the row of Berg's "Schließe mir die Augen beide." Each row combines cyclic organization with RT_6 invariance. In Berg's row the RT_6 invariance is precise and the cycles are clearly laid out, with interlocking segments articulating a <5> cycle and a <7> cycle within each hexachord: F-E-C-A-G-D-/A♭-D♭-E♭-G♭-B♭-C♭.[20] The near-concurrent composition of the songs, coupled with Webern and Berg's ongoing personal and professional relationship, makes the connection even more attractive. Since cyclic organization has been so well documented in the music of Berg but barely mentioned in the context of Webern's works, this connection has the effect of bolstering the cyclic interpretation in Webern's song.

III. Veiled Row References

Having studied T_0P in some detail, we can now address the veiled references to various $(R)T_n(I)P$ that saturate the portions of

---

[19] For a detailed account of the sketches, see Lynn (1992: 99-116). Curiously, since the initial draft of No. 2 apparently *preceded* the composition of No. 1, it seems that T_0P has its origins in a sketched setting of a different song!

[20] The cyclic embedding within this row was first documented in Perle (1977a: 22) and (1977b: 20).

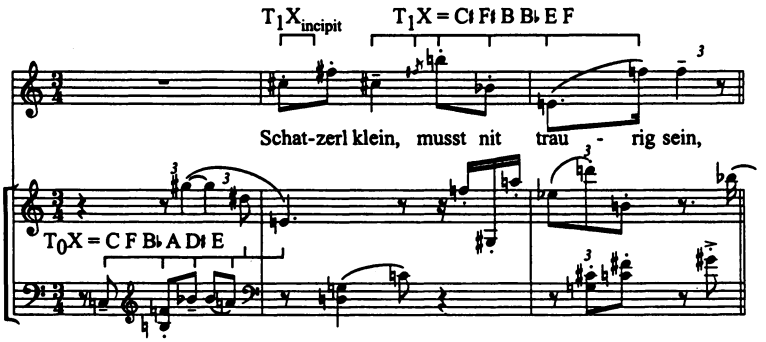
the song in which the poem refers directly to the lovers' relationship (verse 1 and the second half of verse 2). Example 9a points out the clarinet and guitar's T_0X, a segment embedded in the initial statement of T_0P, and the vocal line's T_1X, an ordered subset of T_1P. (The illustration below the score on the example spells out T_0P, T_1P, and via underlining the beginnings of T_0X and T_1X.) Since T_0X and T_1X are related by transposition, they each articulate the same segment of pc intervals, 5-5-e-6-1, a relationship that is partially supported by contour and rhythm. T_0X's C-F-B♭-A and T_1X's C♯-F♯-B-B♭ each articulate the series of contour intervals <+ + –>, and along with $T_1X_{incipit}$ articulate a nearly unbroken series of eighth notes. In a larger context, this clear melodic relationship between an instrumental passage and the ensuing vocal line recalls similar situations in Webern's early vocal works that have been discussed by Marvin and Wason (1995: 99, 111). Indeed, the tradition of instrumental pre-announcements stretches back to the German Romantic Lied and other tonal repertoires. This is but one example of Webern's incorporation of compositional methods he had known about and used throughout his career into his budding twelve-tone technique.

Example 9b extends T_0X and T_1X to include D-G-C and E♭-G♯-C♯, respectively. Although E♭, G♯, and C♯ are separated by numerous intervening notes, several factors suggest pulling them from the line and considering them as a unit. Each is the first note of a phrase following a rest, each occurs at a contour minimum or maximum,[21] and they unfold predictably, precisely one measure apart, on the second sixteenth-note subdivision of the third beat of consecutive measures. Further, the T_5 transformation of E♭ into G♯ is easier to hear because of the T_5 relation among intervening pc pairs G-F♯ and C-B. (Overall, E♭-G-F♯ under r_2T_5 maps onto C-B-G♯.) Moreover, the extensions of T_0X and T_1X answer their beginnings. That is, the motion by pc-interval 5 *away* from C at the beginning of T_0X (C-F-B♭) is answered by motion by the same pc interval *back toward* C at the end (D-G-C). Similarly in T_1X, C♯-F♯-B is answered by E♭-G♯-C♯. The illustration below the score incorporates these extensions into the embedding of T_0X and T_1X

[21] Contour maxima and minima denote registral high- and low-points as defined and used in Morris 1993.

Example 9. Row derivation of voice, verse 1.

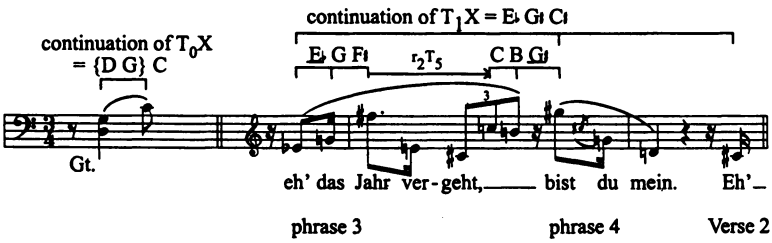
(a) phrases 1 and 2



T_0P = C E B G♯ B♭ A D♯ E C♯ G D F♯ (T_0X underlined)

T_1P = C♯ F♯ C A B B♭ E E D G♯ E♭ G (T_1X underlined)

(b) first notes of phrases 3, 4, and 5



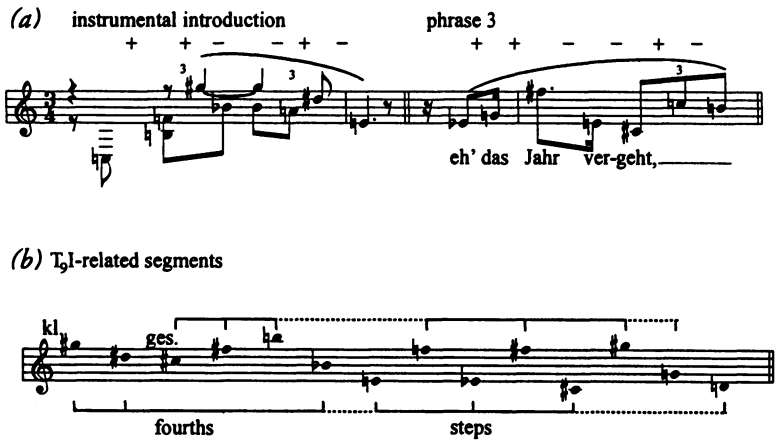
T_0P = C E B G♯ B♭ A D♯ E C♯ G D F♯ (C) (T_0X underlined)

T_1P = C♯ F♯ C A B B♭ E E D G♯ E♭ G (C♯) (T_1X underlined)

within T_0P and T_1P. (Note the minor ordering anomalies: T_0X's {GD} *suppresses* the G-D ordering within T_0P, and in the corresponding place, T_1X's E♭-G♯ *reverses* the ordering of T_1P's G♯-E♭.) Overall, it is attractive to hear T_1X as a "large-scale" version of T_0X because the relationship suggests an analogy between small-scale aggregate and larger-scale verse. T_0X begins with the first note of Aggregate 1, ends with the first note of Aggregate 2, and includes most notes in between. Similarly, yet on a larger scale, T_1X begins with the first vocal note of verse 1, ends with the first vocal note of verse 2, and includes most vocal notes in between.

Four further interpretations, each of which includes some aspect of musical contour, help to account for the vocal notes in phrases 3 and 4 that T_1X skips over. First, vocal phrase 3 copies the contour intervals of the instrumental introduction, <+ + – – + –>, as shown in Example 10a.

Example 10. Other interpretations of verse 1's vocal line.



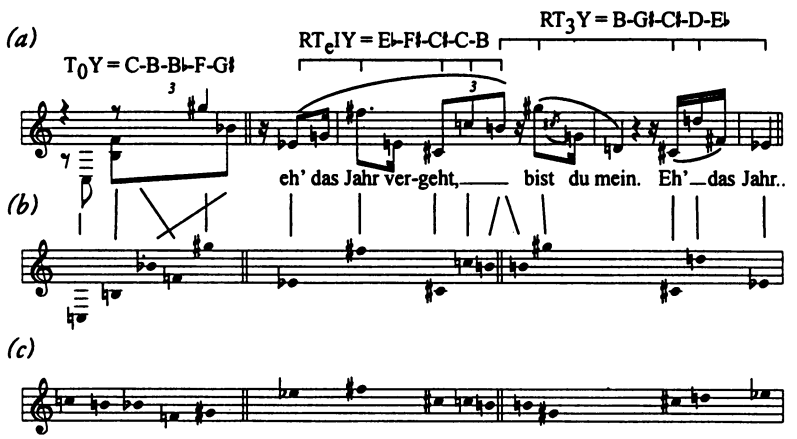
The second interpretation highlights a pair of interlocking T_9I-related, seven-pc segments that incorporate the clarinet line of the introduction, phrases 1 and 2 in their entirety, some of phrase 3's contour maxima and minima, and most of phrase 4. See Example 10b. Pitch-space symmetry suggests dividing each segment 3 + 3 + 1: C♯5-F♯5-B5 and G♯5-D♯5-B♭4 are symmetric around the E5/F5 axis, F5-F♯5-G♯5 and E4-E♭4-C♯4 around B♭4/B4, and G4 and D4 around E4/F4. Despite skipping over some vocal pcs, the interpretation is reasonably easy to follow—ascending/descending perfect fourths at the beginning and boundary pitches moving stepwise in mid-verse. As pointed out by Marvin and Wason 1995 "the notion of non-contiguous 'step progressions' is certainly an important one from the perspective of the performer" (98). In the present context for example, F5-F♯5-G♯5 leads smoothly to the vocal climax that sets the imperative verb "bist." In addition, by thinking of the minor ninth G♯5-G4 as an octave-displaced minor second, we can view the latter half of the symmetric scheme as divergence-by-minor-second (F5-F♯5/E4-E♭4) answered by convergence-by-minor-second (G♯5-G4/C♯4-D4), an interpretation that provides further rationale for a sense of closure at the end of verse 1.[22]

The third interpretation features Robert Morris's (1993) contour reduction algorithm, which prunes out pitches in the midst of straight contours, leaving contour maxima and minima intact. Applied to the vocal line in Example 11a, the algorithm prunes out G ("das") because it is in the midst of the ascent from minimum E♭ to maximum F♯, then E ("ver-") in the midst of the descent from maximum F♯ to minimum C♯. Later it prunes out C♯-G-D ("du mein") within the descent from G♯ to C♯, and F♯ ("das") within the descent from D to E♭. Of the six pruned-out notes, five are of very short duration and metrically unaccented, making it even more sensible to pass them over. These short, unaccented, pruned-out notes set unaccented poetic syllables ("das," "ver-," "du", and "das"), evidence of Webern's sensitivity to the strict alternation of accented and unaccented syllables within each poetic line. Extraordinarily enough, the maxima and minima articulate

[22] Marvin and Wason (1995: 115) identify symmetry around A4 in the first and last phrases of "Der Tag ist vergangen," Op. 12, No.1.

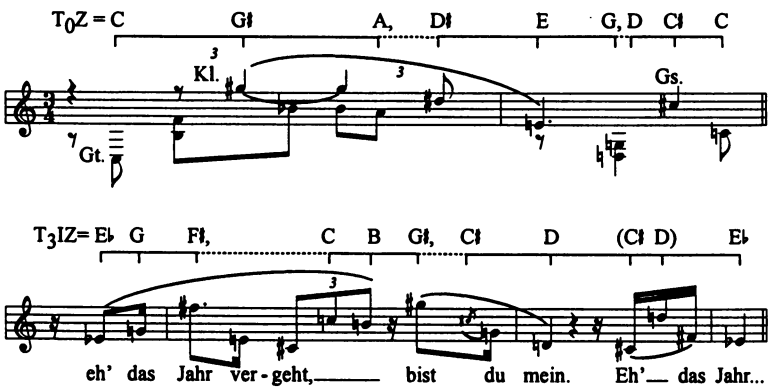
inversionally-related, five-pc segments RT_eIY and RT_3Y, which are also related to T_0Y, a re-ordered version of the opening five notes of Aggregate 1. Example 11b excises the passages' rhythms, dynamics, articulations, lyrics, and pruned-out notes, showing T_0Y in the ordering that corresponds to RT_eIY and RT_3Y. Example 11c normalizes register, further clarifying the pc relationships.

Example 11. Row references in phrases 3-5.



But there is another way to relate the same vocal passage to the opening of the composition. In Example 12, T_0Z, which includes most of Aggregate 1 and the first note of Aggregate 2, is copied by T_3IZ, which accounts for most of the vocal notes in phrases 3-5. Each of these nine-pc segments can be divided into three three-pc subsets: T_0Z is a pair of T_7-related [014]s followed by an <e> cycle fragment, and T_3IZ a pair of T_5-related [014]s and a <1> cycle fragment. This set-type and pc-interval repetition makes it easier not only to follow T_0Z and T_3IZ individually, but also to hear the relationship between them. The repetition of C♯-D during T_3IZ's last subset creates a clear surface link between the end of verse 1 and the beginning of verse 2.

Example 12. An additional row reference.



T_0P = C B F G♯ B♭ A D♯ E C♯ G D F♯ (C♯) C (T_0Z underlined)

T_3IP = E♭ E B♭ G F F♯ C B D G♯ C♯ A (D) (E♭) (T_3IZ underlined)

T_0Z and T_3IZ also share features of the X and Y segments. Like T_0X, T_0Z extends from the first note of Aggregate 1 to the first note of Aggregate 2, and like the RT_eIY/RT_3Y pair, T_3IZ extends from phrase 3's E♭ at "eh'" to phrase 5's E♭ at "Jahr." Also, T_0Z skips over three of the notes that a contour reduction of the passage would prune out (B, F and B♭), a strategy that recalls the Y interpretations.[23] Finally, the first two subsets of T_3IZ are precisely the T_5-related [014]s that support the connection of E♭-G♯ in T_1X. Overall, the vocal row references in verse 1 (T_1X, RT_eIY, RT_3Y, and T_3IZ) articulate precisely one reference to each of the four orientations of the row (T_n, RT_nI, RT_n, and T_nI)![24]

The analytic benefits of these interpretations are *compounded* by a comparison of the vocal lines of phrases 1-3 and 7-8, shown in Example 13. First, T_1X', an approximation of the beginning of T_1X, and T_6X' articulate a T_5 relationship, creating a long-range, large-scale reference to the instances of pc-interval 5 at the beginning of each segment (T_1X''s C♯-F♯, for example). Since the articulation, rhythm, contour, and pc content of "Pfarrer laut" recall "traurig sein," T_6X' incorporates aspects of phrases 1 *and* 2. Moreover, T_0X (from Example 9), T_1X', and T_6X' project [016], the set class that saturates T_0P! By relating detail to large-scale structure, we invoke a powerful principle of musical coherence that has been documented in numerous other works.[25]

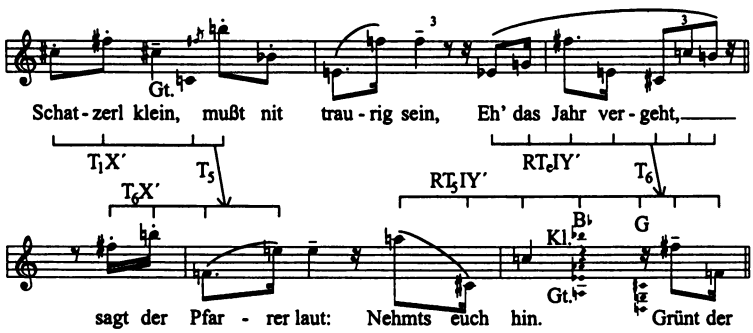
---

[23] The inclusion in T_0Z of Aggregate 1's contour maxima/minima and its "extra" C♯ suggests that T_3IZ copies Aggregate 1 specifically, rather than T_0P in general.

[24] Although no prior Webern works use all four orientations of the row, Webern had been considering using them for at least several years (Shreffler 1994: 288-312). The next song in Op. 18, "Erlösung," is the first Webern work to use all four orientations of a complete row. It sets each of the four parts of the text to a different row form: P (voice of Mary), RP (voice of God the Father), I (Christ speaking to Mary), and RI (Christ speaking to God the Father).

[25] In twentieth-century musical contexts, this topic is discussed under a variety of monikers: projection (Hanson 1960), multiplication (Boulez 1970, Koblyakov 1990, Heinemann 1998), transpositional combination (Cohn 1987 and 1988), and enlargement (Alegant and Mclean 2001). For other examples, see the story of the "falling ninth" motif in Schoenberg's *Klavierstücke*, Op. 19, No. 6, in Lewin 1987, as well as the Lewin-inspired work on "Nacht" from *Pierrot Lunaire* in Gillespie 1992.

Example 13. Comparison of phrases 1-3 and 7-9.



The correspondence between phrases 1-3 and 7-8 continues with RT_eIY' and its T_6 relative, RT_5IY'. The former segment is very easy to follow because it is phrase 3 in its entirety, an approximation of RT_eIY. The latter is nearly as easy to follow; it begins with phrase 8 (A-C♯-C), continues with the clarinet's B♭, which enters precisely as the voice begins to rest, then G, the middle note of a guitar chord, and finally F♯ and F, the first two notes of phrase 9. Only G is somewhat difficult to pull from the texture. All in all, these relationships clearly connect the vocal line of verse 1 to phrases 7-8, unifying the parts of the song that address the lovers' relationship directly.[26]

Such references to $(R)T_n(I)P$ are not limited to the vocal line. The following comments gradually organize the details of the clarinet line of verse 1 to reveal its derivation from T_0P. Example 14a provides a straightforward parsing into six three-note segments. The clarinet part begins with T_8K and ends with T_5IK, each of which articulates a descending contour and is separated from other segments by rests. In between, four $(R)T_n$-related realizations of [014] are given various M labels. Several features of the clarinet line strongly suggest grouping these four segments into two pairs—T_5M/RT_eM and T_tM/RT_8M. First, rests separate the pairs from one another. Second, segments in the same pair are related by RT_n. Third, segments in the same pair articulate identical or I-related pitch contours: T_5M and RT_eM are related by contour inversion, and T_tM and RT_8M each articulate a descending

[26] Adventurous listeners may wish to extend T_6X' to include A5 (the highest note of phrase 8), B♭5 (a high clarinet note initiated precisely as the voice begins to rest), A♭4-C♯4 (the top notes of the guitar's [016] chords articulated during the vocal rest), and F♯5 (the first vocal note of phrase 9). Such an extension may be worth the extra aural and mental effort because it identifies the T_5 relationship with T_1X's E-F-E♭-G♯-C♯ (refer back to Example 9). With this in place, the parallelism between verse 1 and phrases 7-8 becomes even stronger because T_1X and T_6X' extend through Y subsets to conclude on the first vocal note of the next verse. This scheme is anchored by tonal pillars at the beginnings of the four sections of the poem: C♯ begins verse 1 (relationship) and the first half of verse 2 (flowers) and F♯ begins the second half of verse 2 (relationship) and verse 3 (flowers).

contour. Finally, M subsets in the first pair state even-note rhythms, T_5M sixteenth notes and RT_eM triplet eighths.[27]

Appending the guitar's C in measure 2 to the preceding clarinet line creates a rotation of T_0M, r_2T_0M = D♯-E-C. The connection of notes in different instrumental strata is particularly easy to hear at this point because the guitar's C is struck precisely as the clarinet concludes the note E and then rests. Extraordinarily enough, the indices of these five M labels replicate the first five pcs of Aggregate 1 in the *same* partial ordering; that is, 0-{5e}-{8t} copies C-{FB}-{G♯B♭}. Overall, the clarinet—borrowing only one note from the guitar—articulates a large-scale projection of the opening of T_0P! (See L1 and L2 on the example.)

We may hear this L1/L2 relationship more vividly after playing through the remainder of Example 14, which provides a series of intermediate steps that gradually transform L1 into L2. The parts of the example may be performed in order, b–f, perhaps repeating adjacent parts to confirm their connection. Another path through the example emphasizes the embedding of L1 within L2: c, followed by the notes with asterisks in f, then f in its entirety. L1's presentation is *conspicuous* in L2 because each of its pcs either precedes or follows a rest. C concludes r_2T_0M, F and B frame T_5M-RT_eM, and B♭ and G♯ frame T_tM-RT_8M.[28]

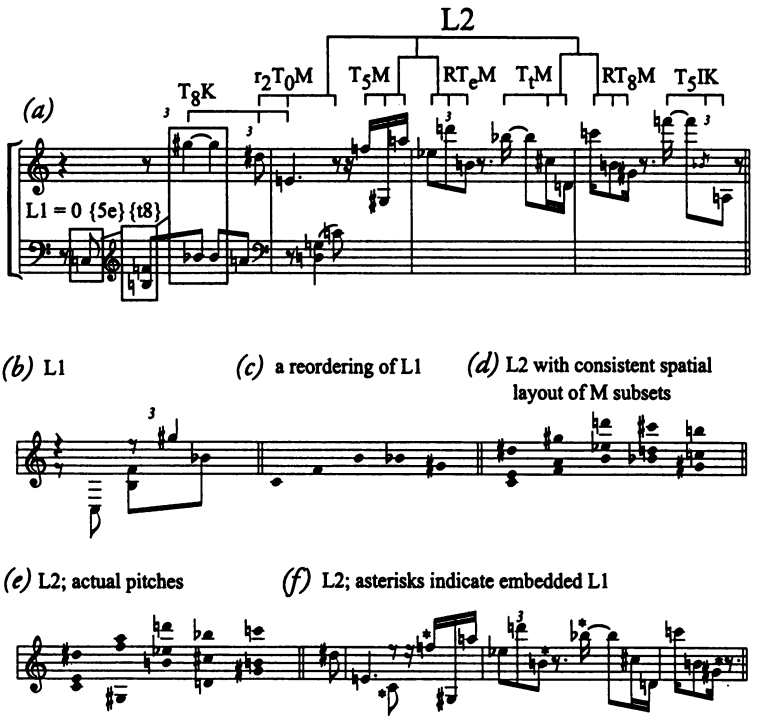
When we consider that the clarinet's K, L, and M relationships unfold during the vocal line's X, Y, and Z references, all within the ensemble's strict repetitions of T_0P, we gain a greater appreciation

---

[27] The clarinet line's emphasis on [014] creates a connection to the overlapping [014]s embedded in the <38> and <94> cycles that are also stated by the clarinet (refer again to Example 8).

[28] We can carry the interpretation further by considering the relationship of M subsets to P and L. Each M subset can be considered a fragment of some $(R)T_nP$. RT_eM and RT_8M articulate the first, second, and fourth notes of T_3P and T_0P, respectively, and T_5M and T_tM articulate the corresponding notes (ninth, eleventh, and twelfth) in RT_9P and RT_2P, respectively. Further, since L subsets involve the first five notes of T_nP and M subsets the first, second, and fourth notes of T_nP, L embeds M. Specifically, L1 = C-{BF}-{G♯B♭} embeds RT_8M = C-B-G♯, and L2 embeds a projection of M, r_2T_0M-RT_5M-RT_8M, whose subscripts correspond to RT_8M = C-B-G♯ = 0-e-8. This refinement has two advantages. First, since both L and M are subsets of P, the L/M interpretation articulates a *bi-level* row reference. Second, rather than viewing L and M as distinct we can think of each in terms of the other, for example that L2 projects L1 with L-fragments.

Example 14. Row derivation of clarinet line, verse 1.



for Webern's ability to balance multiple compositional considerations simultaneously. This becomes even clearer when we notice that the guitar part for verse 1 is *not* merely a repository for pcs that are required by the repetitions of T_0P but not needed for K, L, M, X, Y, and Z. Although the guitar part does not articulate a veiled reference to $(R)T_n(I)P$, it does generate compelling relationships. Consider, for instance, the top and bottom notes of 2-, 3-, and 5-note guitar chords shown in Example 15: {AG♯}-{B♭A}-{GF♯}-{EE♭}-{CB}-{AA♭}. Each pc pair articulates interval-class 1, which is realized as pitch-interval 11 in every instance but the last, where the five-note chord necessitates a wider spacing. Studying the transposition of each pc pair into the next reveals $<T_1\ T_9\ T_9\ T_8\ T_9>$, the same string articulated by C♯-D-B-A♭-E-C♯, a segment that combines vocal notes from the end of verse 1 and the beginning of verse 2 with the top notes of intervening guitar chords.[29]

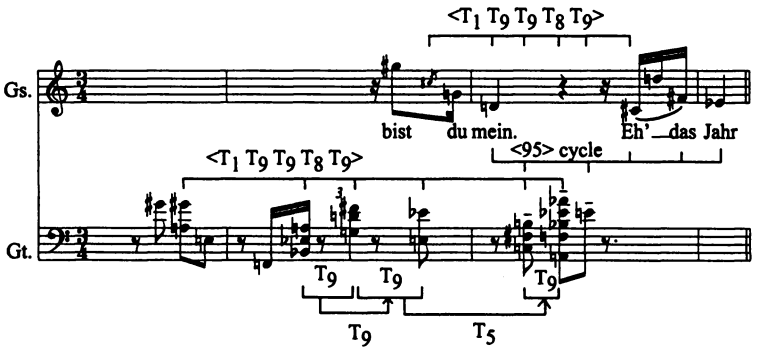
The same series of dyads can be partitioned into three T_9-related dyad pairs—{B♭A}-{GF♯}, {GF♯}-{EE♭}, {CB}-{AA♭}. Overall these pairs articulate $<T_9\ T_5>$, creating a larger-scale reference to the <95> cycle fragment D-B-E-C♯-F♯-E♭. Although this cyclic fragment passes over the five-note guitar chord and the vocal D5, it is easy to follow, not only because of the consistent pitch layout (descending minor thirds and ascending perfect fourths), but also because B-E-C♯-F♯-E♭ articulates an *accelerando*—attack-point intervals of 4, 3, 2, and then 1 (measured in sixteenth-note units). The *accelerando* creates a sense of arrival on E♭, the precise point at which the Y and Z interpretations also conclude.[30] Not only does the <95> cycle fragment relate to the guitar chords, but it also suggests a unified way to hear from one measure's downbeat to the next (D-...-E♭) at the verse boundary.

---

[29] Some of these transpositional relationships also involve other notes; for instance, {AG♯}-E at the beginning is answered immediately by its RT_1 transformation, F-{B♭A}. (E♭ does not participate in this transposition.) {AG♯}-E also recurs at the end of the passage.

[30] The inclusion of A♭4 at the top of the five-note chord and D5 (skipped over by the <95> cycle interpretation) produces B3-A♭4-E4 and C♯4-D5-F♯4, which share the same contour and a 2:1 rhythmic relationship.

Example 15. Guitar and voice, mm. 3-6.

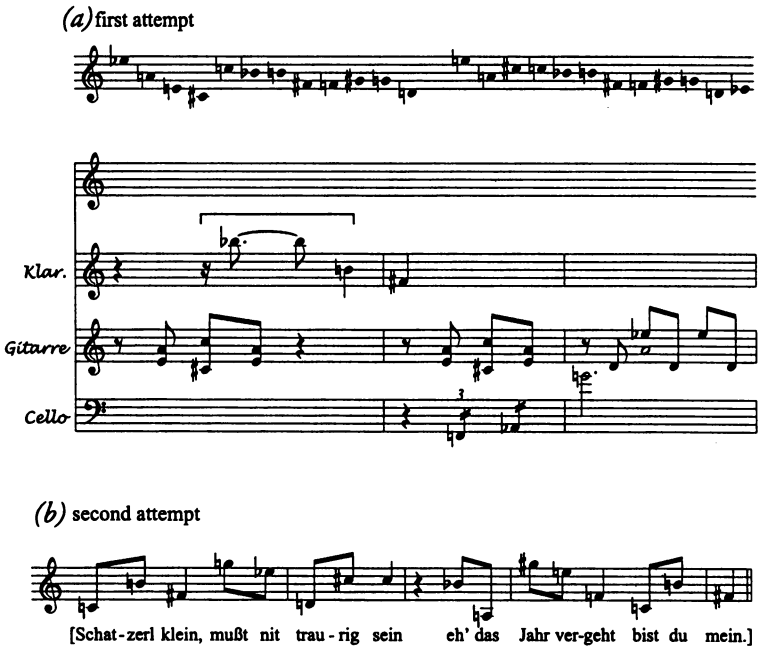


IV. Compositional Sketches

The compositional sketches for "Schatzerl klein" support and enhance the foregoing analysis. This paper's identification of (veiled) row references in the vocal line is corroborated by sketches showing that Webern thought about placing complete row forms in the vocal line, considered using multiple transformations of (complete) T_0P, and experimented with alternate versions of the vocal line that also contain fragments of $(R)T_n(I)P$. This study also shows how row references emerge during the sketching process. More generally, the sketches suggest an "on-the-fly" compositional process rather than dogmatic adherence to some elaborate pre-compositional plan.

The sketches are written on folio pages 18-21 of the *Anton Webern Sketchbook I* (June 1925–January 1926), which is currently housed at the Pierpont Morgan Library. The upper part of the first of these pages features two brief attempts not based on T_0P. These attempts borrow the row realization strategies from Webern's previous twelve-tone works, the *Drei Volkstexte*, Op. 17 for voice, violin, B♭-clarinet, and B♭-bass clarinet. The first attempt, given in Example 16a, consists of two twelve-tone rows and a related three-measure fragment for voice, E♭-clarinet, guitar, and cello, in which *instruments collaborate* to articulate the row, as in Op. 17, No. 2. The second attempt is a vocal setting of verse 1 of the poem, a realization of a twelve-tone row followed by a repetition of its first three notes (see Example 16b). This suggests that Webern considered saturating the vocal line with abutting instances of a single row form as he did in Op. 17, No. 3. Although Webern does not pursue the use of complete row forms in the vocal line any further, the presence of the row references outlined in this paper suggests that the idea may have lingered (whether consciously or subconsciously) during later sketching that led to the finished version. Overall, it is possible to view "Schatzerl klein" as an effort to reconcile two opposing row realization strategies—instrumental collaboration and instrumental independence—which appear separately, not only in Webern's previous two twelve-tone songs, but also in the pair of preliminary attempts at "Schatzerl klein."

Example 16. Preliminary sketches; Anton Webern Sketchbook I, *page 18.*



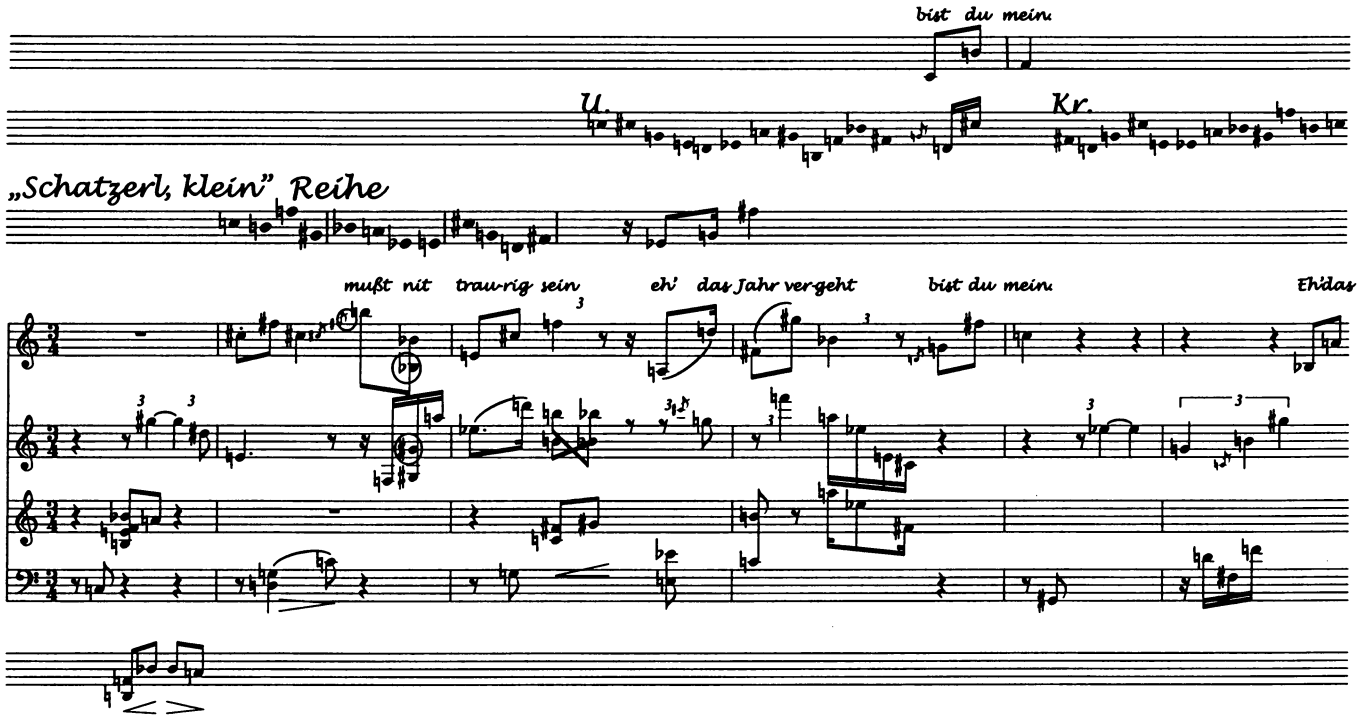
Webern, Anton, 1883-1945. [Sketchbook.] Dated June 1925 at the beginning and January 1926 at the end. Various excerpts in transcription. Used by permission of The Pierpont Morgan Library.

In the remaining sketches (which are all based on T_0P), there is evidence to suggest that Webern considered using *multiple* complete row forms in Op. 18, No. 1. Example 17 reproduces the beginning of the T_0P-based sketches on which Webern notated not only T_0P, but also T_0IP and RT_0P, labeled *Reihe*, *U.* (*Umkehrung*), and *Kr.* (*Krebs*), respectively. The notes of *Reihe* are notated in thick, blue pencil markings, probably for easy reference during the remainder of the sketching process. If Webern had notated *U.* and *Kr.* immediately after *Reihe* they would likely be horizontally or vertically aligned; and in this case we might conclude that *U.* and *Kr.* were notated but then quickly forgotten. Rather, *U.* and *Kr.* are on a different staff line, above and around E♭-G-F♯ and G-D-C♯, which are fragmentary emendations to the initial complete draft of verse 1. This page layout suggests that *U.* and *Kr.* were notated only *after* Webern had sketched an entire draft of verse 1 and made some revisions to that draft. If this is true, we have evidence that Webern considered complete row forms other than T_0P *in the midst* of composing the song. Coupled with the evidence that Webern considered placing complete row forms in the vocal part, these aspects of the sketches strongly support the claim of multiple row references.[31]

Moreover, drafts of the vocal line that appear in the sketches (but that were ultimately revised or discarded) also contain row references. Consider for example the settings of "bist du mein." Example 17's G-F♯-C-E♭, the first four notes of T_7P, is a cooperative effort of the vocal line at "bist du mein" and, when the

[31] The sketches (and final versions) of Op. 17, Nos. 2 and 3 provide no evidence that Webern considered using multiple row forms, but the idea was certainly not new to Op. 18, No. 1. Not only did Schoenberg's prior works, which Webern knew, use multiple row forms, but Webern also notated a row and a few of its transformations in sketches some three years earlier. As Shreffler 1994 shows, the 1922 sketches for "Mein Weg geht jetzt voruber" contain a row along with its retrograde, inverted, and tritone-transposed versions. These sketches "were soon abandoned. He completed the piece as Op. 15, No. 4, retaining elements from the original row, but reverting to the familiar atonal style of earlier works" (288). Shreffler (1994: 317) also points out that the 1924 sketches for the String Trio—eventually completed as Op. 20—include multiple row forms.

Example 17. Anton Webern, Sketchbook, *p. 18. Initial sketch of verse 1 based on* T_0P.



Webern, Anton, 1883-1945. [Sketchbook.] Dated June 1925 at the beginning and January 1926 at the end. Various excerpts in transcription. Used by permission of The Pierpont Morgan Library.

voice rests, the clarinet.[32] The top staves in Example 17 show that Webern also considered [016] fragments G-D-C♯ and C-B-F to set the phrase.

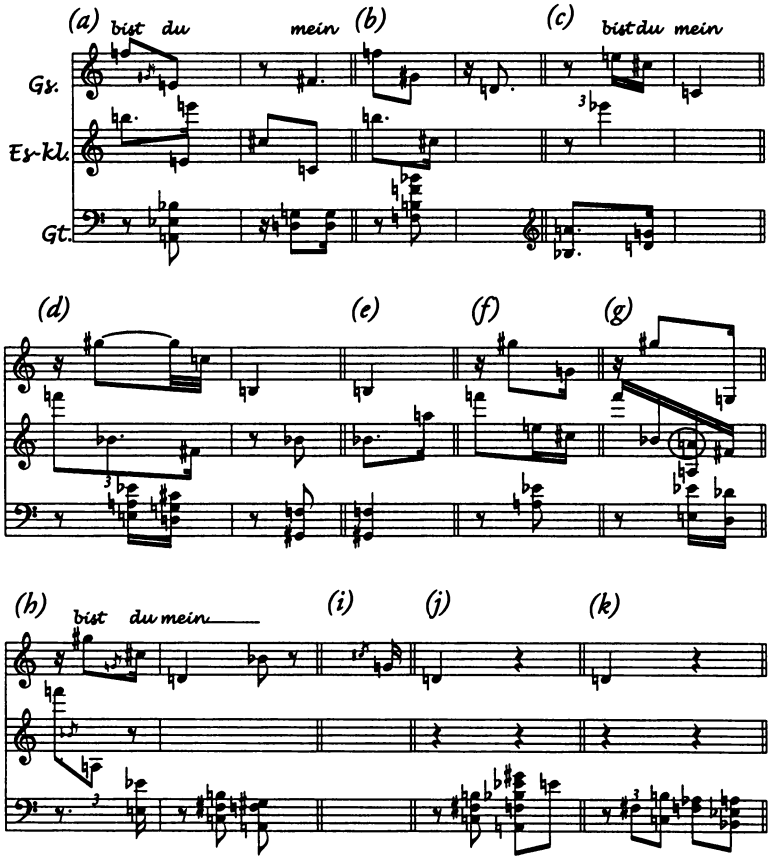
In Example 18, parts a-d and h are further settings of "bist du mein," while e-g revise fragments of d and i-k revise fragments of h.[33] Parts a, b, and c each articulate a three-note fragment of some RT_nIP, as shown by underlining in RT_2IP = ...-F-E-F♯-A-E♭-D, RT_1IP = ...-F-G♯-D-C♯, and RT_0I = ...-E-G-C♯-C. The exploration of RT_nIP where n = 2, then 1, and then 0 may be purely coincidental, or it may indicate a conscious and systematic attempt to incorporate such a reference, as if referring to a list of the RT_nIP row forms (though no such list exists in the sketches). In part d, G♯-C-B provides a T_5 answer to E♭-G-F♯ (part of T_3IP) stated by "eh' das Jahr." This pc relationship and the inversionally-related contours—ascending at "eh' das Jahr" and descending at "bist du mein"—could have framed the second half of verse 1 convincingly. G♯-G-B, which arises by combining either fragment f or g with either e or the last part of d, is an RT_2I answer to E♭-G-F♯ that could have performed a similar framing function. Not only does the vocal setting in h include G♯-G-C♯-D, the middle tetrachord of T_tP and a precise T_9 answer to B-B♭-E-F at "mußt nit traurig sein," but it also includes G♯-C♯-D-B♭, an RT_7 answer to E♭-G-F♯-(E)-C♯ at "eh' das Jahr vergeht." Webern appears to have been able to generate such relationships at will, affording him the

---

[32] This portion of the draft is puzzling, not only because one statement of T_0P reverses the ordering of D and G ("bist"), but also because the next is barely half complete—only the underlined pcs in C-B-F-G♯-B♭-A-E♭-E-C♯-G-D-F♯ are present.

[33] It is difficult to be certain of the order in which the drafts were sketched. A description of the page layout: the initial complete draft of verse 1 spans the entire width of the eighth through eleventh staves of page 18. Below that, on the bottom left portion of the same page, part a appears above b. On the bottom right portion of the page, parts c and d appear next to one another, above f, g, and h. Part i is on the staff between d and h. On the following page next to d, part e begins a draft that goes on to set verse 2's "eh' das Jahr vergeht" in a way that is eventually discarded; fragment j is directly below e, and k is below j. Example 18's ordering of the fragments is my best guess of the order of their sketching. The ordering draws on the following (admittedly uncertain) assumptions: Webern worked from left-to-right (even onto the facing page), from top-to-bottom, and on fragmentary revisions immediately after the drafts on which they are based.

Example 18. Anton Webern, Sketchbook, *pp. 18-19. Settings of "bist du mein".*



Webern, Anton, 1883-1945. [Sketchbook.] Dated June 1925 at the beginning and January 1926 at the end. Various excerpts in transcription. Used by permission of The Pierpont Morgan Library.

luxury of discarding/revising even a phrase that elegantly incorporates aspects of the previous two.

Not only do the sketches corroborate the existence of veiled row references in general, but they also shed light on the emergence of the particular row references that appear in the published version of the song. The ensuing discussion relates features of the sketches in Examples 17 and 18 to verse 1 of the published song, which is quoted in Example 1. First, the beginning of T_1X, C♯-F♯-B-B♭-E-F, appears in the initial T_0P-based sketch in Example 17 and undergoes almost no revision. The only revision to the vocal line occurs at the syllable "-rig," where the sketch's C♯5 is omitted in favor of an additional F5 in the published version. This change clarifies the row reference because B-B♭-E-F-F is a clearer T_1 copy of T_0X's B♭-A-E♭-E than B-B♭-E-C♯-F would have been. This is not to suggest that clarifying the row reference is the (only) reason for the change. For instance, the emphasis on C♯5 earlier in the vocal line may have induced the change at "-rig." Further, replacing C♯5 with F5 creates a slurred minor ninth on "traurig," an atonal version of the classic sigh motive that paints the text aptly.[34]

In contrast to the beginning of T_1X, which is apparent in nearly its final form in the initial sketch of the passage, the remainder of T_1X and the other row references in verse 1 emerge only gradually as numerous revisions/changes are made to phrases 3 and 4. For example, the vital G♯5 at "bist" in phrase 4—which is part of the continuation of T_1X, T_3IZ, and RT_3Y, as well as the T_9I-symmetry and an RT_6-invariant segment—makes its first appearance partway through the sketching process of phrase 4, as shown in Example 18. As with phrase 4, Webern sketches numerous intermediate drafts of phrase 3 that gradually reveal features of the final version; these drafts are not shown on these examples and so interested readers will have to explore them in

[34] The final version's dotted rhythm and slurred articulation of the vocal E4-F5 may also have originated from the initial sketch's clarinet fragment E♭4-D5, which occurs precisely at "traurig." The clarinet line in this part of the initial sketch is also strikingly similar to the published song. That is, both versions state the RT_6-invariant segment F-G♯-A-E♭-D-B. Several sketch fragments (not shown) make cosmetic refinements to the initial sketch to yield the precise rhythmic and registral layout of the published version.

more detail on their own. For our purposes it suffices to note that the initial sketch of phrase 3 in Example 17 bears little resemblance to the published score—indeed, the vocal line's rhythm at "eh' das" and the setting of "Jahr" with a vocal F♯ are the only common features.

Overall, this contrast in the way that row references develop in the sketches suggests a bipartite division of verse 1, a division that corresponds neatly to the disparity in the complexity of the row references. That is, the beginning of T_1X—apparent in the initial T_0P-based sketch—is the most unambiguous reference in the song because it includes every note in phrases 1 and 2 and because it is clearly linked by rhythm and contour to T_0P's realization as Aggregate 1. On the other hand, the multiple, overlapping row references embedded in phrases 3 and 4—which emerge only gradually during the sketching process—are more complex to extract from the musical surface and to relate to complete $(R)T_n(I)P$.[35]

In addition to informing the specific topic of row references the sketches also provide insight concerning other features of the compositional process.[36] For example, a few surface characteristics

---

[35] There is a similar congruence involving the row references in the second half of verse 2. The first sketched setting of "sagt der" is identical to the published version; the pair of staccato sixteenths F♯5-B5 is the clarion signal that begins T_6X' and creates such a clear reference back to T_1X. (According to the sketches, the only change that Webern even considered making was to state the pitch pair an octave lower as F♯4-B4.) By contrast, the remainder of T_6X' and RT_5IY' arise bit by bit during a lengthier sketching process and are more subtly articulated by the musical surface.

For a detailed account of the sketches for the remainder of the song consult Lynn 1992, who, for example, notes that ends of phrases receive particular attention: "Sketches for the remainder of the song did not undergo nearly as great a transformation as did those for mm. 4-5. Nonetheless, the composer continued to work on single measures or pairs of measures, and he continued to focus his efforts on the ends of phrases: mm. 8-9 and, even more intensively, mm. 12-13, the close of the entire song" (105). For sketch studies of other works by Webern see Bailey 1996 and Meyer and Shreffler 1993.

[36] Sweeping generalizations about the compositional process are difficult to make, not only because the order in which various revisions were made is not always so easily deduced, but also because of a general problem that a given set of sketches typically accounts for only a fraction of the composer's thought process.

of the final version of the song appear to have emerged concurrently with the working out of T_0P. This is clear from relationships between the preliminary attempts and the final version of the song, from similarities between the preliminary attempts' rows and T_0P, and from the sketching of Aggregate 1 on Example 17.

The clarinet gestures in the first attempt (B♭5-B4-F♯4 in Example 16a) and at the beginning of the published song (G♯5-D♯5-E4) have similar rhythms and share the same contour and set class. The second attempt approximates the rhythm and contour of the finished vocal setting of verse 1, occupying roughly the same number of beats, although the straight eighths and quarters in the sketch often give way to dotted, syncopated, or triplet rhythms in the final version. Contour intervals usually match: for example each setting of "Schatzerl klein, mußt nit traurig sein," excluding grace notes, articulates the series <+ – + – – + 0>. In several cases the intervallic correspondence is precise, as with the descending perfect fourths at "-zerl klein" and "du mein" in both sketch and song.[37]

The rows in each attempt share properties with T_0P. For instance, the second attempt's row and T_0P each begin with [016], embed <e> cycles (E♭-D-C♯ and B♭-A-G♯ in the sketch), and contain retrograde invariance—precise RT_eI invariance in the sketch (F♯-G-E♭-D-C♯-B♭-A-G♯-E-F) and imprecise RT_6 invariance in T_0P. This suggests that [016], <e> cycles, and retrograde invariance are in some sense basic to Webern's concept of the row for this song. Since exactly these properties of T_0P are addressed in Part II of this paper, the sketch can be construed as supporting the analysis.

---

[37] Webern's sketching process for Op. 18, No. 1 appears to have been typical of his early twelve-tone song composition in several respects. First, he often debated whether to articulate the series within the voice or among the instruments. Second, Webern usually composed the music for a twelve-tone opening, either for the instruments collaboratively or for the vocal line alone, then extracted the twelve-tone row, and made revisions of both row and music as he continued composing. Third, initial attempts are often abandoned in favor of versions that retain only a few features of the original. See for example, the accounts of the sketches for Op. 15, No. 4 in Shreffler (1994: 288-301) and of Op. 17, Nos. 2 and 3 in Lynn (1992: 86-99).

Finally, the sketches in Example 17 suggest that the final details of T_0P and of its realization as Aggregate 1 emerged simultaneously. The initial sketch of Aggregate 1 is nearly identical to that of the published song, the only difference being the placement of E and B♭ in measure 1. The fragment at the bottom of the example revises this passage to yield T_0P and Aggregate 1 as published. Since the sketches for Aggregate 2 and nearly all succeeding ones conform precisely to T_0P, it is reasonable to conclude that the revision to Aggregate 1 was made immediately after the initial sketch of Aggregate 1.[38]

V. Conclusion

Overall, the sketches suggest an *ad hoc*—but thoughtful and complex—compositional process. These characteristics match those of the composition's main analytic features: imprecise but intriguingly-combined cyclic and RT_6 row properties, an approximate but clear large-scale palindrome, various types of inexact but compelling musical repetitions in the vocal line that support the form of the poem, and incomplete but ingeniously-realized row references.

The multiple row references outlined in the foregoing analysis answer the question posed in the title of this paper with a resounding "No!" Op. 18, No. 1 is not limited to a single row form; rather, it offers a rich network of row-related associations. That these row references unfold in individual melodic lines while the texture as a whole repeats T_0P shows that Webern was able to combine competing row realization strategies—instrumental collaboration and instrumental independence. Aware of this ability to manage these and other compositional considerations simultaneously, we can sense the profound compositional skill that we are accustomed to hearing in Webern's later twelve-tone music. Indeed, of Webern's first six twelve-tone songs "Schatzerl klein" may have been his favorite, for he chose to include it in an

[38] The conformance of *U.* and *Kr.* to the final version of T_0P further suggests that they were not notated before the composition of the initial complete draft of verse 1.

anthology prepared in honor of Emil Hertzka's twenty-fifth anniversary at Universal Edition in 1925, the public debut of both Webern and Berg in twelve-tone composition.[39]

Webern was undoubtedly pleased with his ability to achieve some degree of sophistication with the new serial technique while retaining many features of his pre-serial compositional style. But he may also have found this composition gratifying because so many other aspects of his professional and personal life intersect here. Webern himself identifies the connection between the poem's "Rosmarin" references and his lifelong passion for alpine flora. Further, since Op. 18 as a whole juxtaposes folk poetry from Rosegger, a poem from *Des Knaben Wunderhorn*, and a Marian liturgical text, it fuses into a single opus text sources that Webern had been using over the previous decade. Moreover, the settings draw connections to Webern's literary and musical heroes (Goethe and Mahler), all in the context of a tribute to his beloved wife.

In short, this song is not a naïve experiment and it is not disappointingly straightforward. Rather it is a complex, serious composition by an experienced composer written at a critical point in his career—a composition of which the composer was very proud. Indeed, Webern was so pleased with this work that only two weeks after finishing "Schatzerl klein" and in the midst of composing Op. 18, No. 2, he wrote in a letter to Berg:

> ...Twelve-tone composition is now a perfectly clear thing for me. Obviously all these songs are written in it. And this work gives me a pleasure as hardly ever before. I am burning with desire to show you, what is accomplished with it and what will be.[40]

---

[39] For more commentary concerning the inclusion of this song in the Hertzka anthology, see Shreffler (1994: 335).

[40] The translation is from Johnson (1999: 162). The original letter appears in Rexroth (1983: 78), and the passage is also quoted in Lynn (1992: 117).

References

Alegant, Brian. 1991. "A Model for the Pitch Structure of Webern's Op. 23, No. 1, 'Das dunkle Herz'." *Music Theory Spectrum* 13/2: 127-146.

Alegant, Brian and Donald McLean. 2001. "On the Nature of Enlargement." *Journal of Music Theory* 45/1: 31-72.

Bailey, Katharine. 1991. *The Twelve-Note Music of Anton Webern.* Cambridge: Cambridge University Press.

_____. 1996. "Symmetry as Nemesis: Webern and the First Movement of the Concerto, Opus 24." *Journal of Music Theory* 40/2: 245-310.

Batstone, Philip. 1972, 1973. "Multiple Order Functions in Twelve-Tone Music." *Perspectives of New Music* 10/2: 60-71, 11/1: 92-111.

Boulez, Pierre. 1970. *Thoughts on Music.* Cambridge, MA: Harvard University Press.

Cohn, Richard L. 1987. "Transpositional Combination in Twentieth-Century Music." Ph.D. diss., Eastman School of Music.

_____. 1988. "Inversional Symmetry and Transpositional Combination in Bartok." *Music Theory Spectrum* 10: 23-38.

Forte, Allen. 1998. *The Atonal Music of Anton Webern.* New Haven: Yale University Press.

Gillespie, Jeffrey L. 1992. "Motivic Transformations and Networks in Schoenberg's 'Nacht' from *Pierrot Lunaire.*" *Intégral* 6: 34-65.

Griffiths, Paul. 2000. "Anton Webern." In *The New Grove Dictionary of Music and Musicians.* Edited by Stanley Sadie. New York: MacMillan.

Haimo, Ethan and Paul Johnson. 1984. "Isomorphic Partitioning and Schoenberg's Fourth String Quartet." *Journal of Music Theory* 28: 47-72.

Hanninen, Dora. 1995. "The Variety of Order Relations in Webern's Music: Studies of Passages from the Quartet Op. 22 and the Variations Op. 30." *Theory and Practice* 20: 31-56.

Hanson, Howard. 1960. *The Harmonic Materials of Twentieth-Century Music.* New York: Appleton-Century-Crofts.

Headlam, Dave. 1985. "The Derivation of Rows in Lulu." *Perspectives of New Music* 24/1: 198-233.

_____. 1990. "Contour and Row Derivation in *Der Wein.*" *Perspectives of New Music* 28/1: 256-68.

Heinemann, Stephen. 1998. "Pitch-Class Set Multiplication in Theory and Practice." *Music Theory Spectrum* 20/1: 72-96.

Johnson, Julian. 1999. *Webern and the Transformation of Nature.* Cambridge: Cambridge University Press.

Koblyakov, Lev. 1990. *Pierre Boulez: A World of Harmony.* Chur: Harwood Academic Publishers.

Lambert, Philip. 1990. "Interval Cycles as Compositional Resources in the Music of Charles Ives." *Music Theory Spectrum* 12: 43-82.

_____. 1997. *The Music of Charles Ives.* New Haven and London: Yale University Press.

Lewin, David. 1987. *Generalized Musical Intervals and Transformations.* New Haven: Yale University Press.

_____. 2002. "Thoughts on Klumpenhouwer Networks and Perle-Lansky Cycles." *Music Theory Spectrum* 24/2: 196-230.

Lynn, Donna Levern. 1992. "Genesis, Process, and Reception of Anton Webern's Twelve-Tone Music: A Study of the Sketches for Opp. 17-19, 21, and 22/2 (1924-30)." Ph.D. diss., Duke University.

Marvin, Elizabeth West and Robert W. Wason. 1995. "On Preparing Anton Webern's Early Songs for Performance: A Collaborators' Dialogue." *Theory and Practice* 20: 91-124.

Mead, Andrew. 1988 and 1989. "Some Implications of the Pitch-Class/Order-Number Isomorphism Inherent in the Twelve-Tone System." *Perspectives of New Music* 26/2 :96-163; 27/1: 180-233.

_____. 1992. Review-Article of *The Twelve-Note Music of Anton Webern: Old Forms in a New Language* by Kathryn Bailey. *Intégral* 6: 107-135.

_____. 1993. "Webern, Tradition, and Composing with Twelve Tones." *Music Theory Spectrum* 15/2: 173-204.

Meyer, Felix and Anne C. Shreffler. 1993. "Webern's Revisions: Some Analytical Implications." *Music Analysis* 12/3: 355-379.

Moldenhauer, Hans and Rosaleen Moldenhauer. 1978. *Anton Webern: A Chronicle of his Life and Work.* London: Victor Gollancz.

Morris, Robert. 1977. "On the Generation of Multiple-Order-Function Rows." *Journal of Music Theory* 21/2: 238-262.

_____. 1992. "Modes of Continuity in Schoenberg's Piano Piece, Opus 23, No. 1." *Theory and Practice* 17: 5-34.

_____. 1993. "New Directions in the Theory and Analysis of Musical Contour." *Music Theory Spectrum* 15/2: 205-28.

Noller, Joachim. 1984. "Das dodekaphone Volkslied." In *Musik-konzepte Sonderband Anton Webern II,* ed. Heinz Klaus Metzger and Rainer Riehn, 137-150. Munich: Edition Text und Kritik.

Perle, George. 1977a. "Berg's Master Array of the Interval Cycles." *The Musical Quarterly* 63/1: 1-30.

_____. 1977b. *Twelve-Tone Tonality.* Berkeley: University of California Press.

Porter, Charles. 1989-90. "Alban Berg's String Quartet No. 3." *Theory and Practice* 14-15: 139-77.

Rexroth, Dieter, Ed. 1983. *Opus Anton Webern.* Berlin: Quadriga Verlag.

Sallmen, Mark. 2001. "No Simple Pieces: Curricular Coherence, Classroom Vocalization, Row Combination, and the 'Trio' from Schoenberg's Suite for Piano, Opus 25." *Journal of Music Theory Pedagogy* 15: 1-49.

_____. 2003. "Motives and Motivic Paths in Anton Webern's Six Bagatelles for String Quartet, Op. 9." *Theory and Practice* 28: 29-52.

Shreffler, Anne C. 1994. "'Mein Weg geht jetzt voruber': The Vocal Origins of Webern's Twelve-Tone Composition." *Journal of the American Musicological Society* 47/2: 275-339.

Starr, Daniel. 1984. "Derivation and Polyphony." *Perspectives of New Music* 23/1: 180-257.

Webern, Anton. 1975. *The Path to the New Music*, ed. Willi Reich, trans. Leo Black. Vienna: Universal Edition.