3

Alban Berg and Creeping Chromaticism

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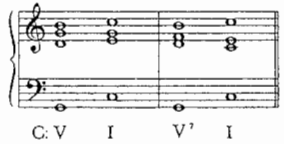
I OFFER the term 'creeping' in this paper in order to designate a principle of generalized contrapuntal behaviour, a habit of stepwise linear motion of textural voices, by whole step or semitone, either simultaneously or not simultaneously with each other, without specificity of direction. To put it another way, a texture of creeping voices is defined to be a texture in which one or more parts move by stepwise motion, with the possibility that one or more additional parts may remain stationary as the others move.

In an attempt at useful refinement of this very general definition, we may further characterize creeping as a phenomenon which extends fairly regularly over a musical space, and which in general *subverts harmonic progression.* Creeping then becomes a principle which generates harmony, but at the same time the harmony that can be generated includes more possibilities than might be implied by normal root contiguities.

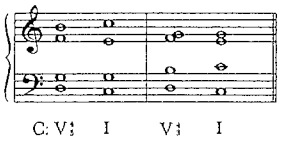
Let us try to illustrate with a harmony lesson. Example 1 is a paradigm of the perfect cadence, V–I in root position with the leading tone in the upper voice progressing stepwise to the tonic root. One inner part also moves stepwise, and the doubled root of the V stays constant in the same voice. The bass voice, which is the root progression, moves steeply by skip. This is what every harmony student learns no later than Chapter 3, the archetypal 'strong progression'. In V^7–I, with an additional tendency tone, the stepwise motion is just as clear.

Example 1



Example 2, V^4_3–I, markedly weakens the effect of the above progression by eliminating the strong root motion in the bass. There is no longer any motion

Example 2



by skip; the dominant root function is moved to an inner part where it takes the place of the doubled root, and remains constant in the same voice. Considered purely in linear terms, the relationship of these parts is an archetypal illustration of creeping. The principles that connect the voices from chord to chord are constancy on the one hand, and conjunction on the other; a voice either stays fixed, or it moves by step, up or down. There is no longer a specific motion of roots in a single voice. Thus we have stood harmonic progression on its head in order to define creeping, here, as a principle of harmonic motion.

In talking about Berg's harmony I used to refer to 'sliding chromaticism'. But 'sliding' fails to take into account any voices that at a given moment might be stationary, and it also suggests parallelism while simultaneously excluding contrary motion. 'Creeping' seems much more suitable.[1] It also suggests a multi-legged invertebrate, one that can hold one or more feet motionless at the same time that one or more other feet move forwards or backwards.

Consider a familiar piece, the C major Prelude from Book I of Bach's *Well-tempered Clavier*. The kind of motion in this piece, from measure to measure, from harmony to harmony, is predominantly diatonic creeping. That is, the individual chordal components, the separate voices, move for the most part from chord to chord by conjunct motion or by retention of common tones, which is to say, by step or not at all. There are some well-defined exceptions to this observation, of course, the most important being the motion of a fourth or fifth, defining a 'tonicizing' or 'dominantizing' motion by root progression of the bass, as in measures 9–10 or 10–11. Other important exceptions are harmonic inversions and exchange of voices, reformatting operations of musical space, such as the appearance of the A in the upper voice of measure 5 by octave transfer from the right thumb. But considered on a chord-to-chord basis, these motions, articulating the stronger tonal gestures, are much less frequent than the continuities and contiguities which frame the creeping progressions.

These are elementary, even trivial examples of what the harmony books call 'smooth connection of chords', and we hardly need a special term like 'creeping' to emblazon it. So let us consider another equally familiar example in which creeping is more restrictively demonstrated. In Chopin's E minor Prelude we have an example of chromatic creeping, that is, smooth harmonic motion, but

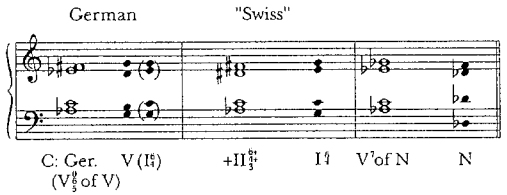
[1] I am grateful to Professor Joan Smith for proposing this amiable term.

not smooth harmonic progression, precisely comparable to the kind of motion we defined in the Bach Prelude but with the added complication of chromatic tones. It is at once apparent that with a chromatic component, the possibilities of harmonic variety are greatly enlarged, by means of passing tones, suspensions, and neighbour-notes which may or may not be interpretable as chord factors. The most important observation to be made is that the functional relationships from chord to chord in this piece are complex and unpredictable. They involve a variety of relationships that may variously be described as irregular resolutions, modal mixtures, and remote enharmonic connections.

The Chopin example is a mid-nineteenth-century harbinger, although we can certainly find much earlier harbingers from Gesualdo onwards, of the phenomenon which we generally refer to as post-Wagnerian chromaticism, in which harmonic progression is dominated by remote tonal relationships, and in which chromatic non-harmonic tones tend to be absorbed into the harmony itself. The connection between chords thus becomes primarily a contrapuntal one rather than a functional one, and the root progression a secondary consideration. (This might ironically be compared to the counterpoint of the sixteenth century, in which the harmonic bass, marked by strong root-progression, was a relatively rare phenomenon.)

A familiar illustration of these remote tonal relationships, embodied in a specific chordal type, is afforded by the augmented sixth chords (Example 3).

Example 3 Two augmented sixth chords

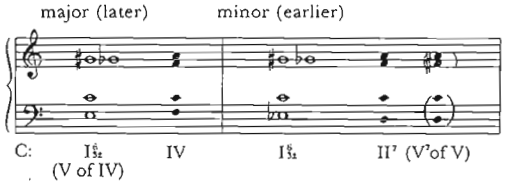


Everybody knows the German sixth as an uncomplicated secondary dominant resolving to V. (Compare, for example, the voice leading of German-to-V with the V^4_3–I of our Example 2, with its diverging outer voices; or, if you like, resolve the German sixth to the minor tonic $^6_4$, which retains two common tones.) Now, the German sixth is also enharmonically equivalent to two other chords, one of them another very familiar augmented sixth chord, the so-called doubly augmented fourth, which is sometimes whimsically dubbed the 'Swiss sixth', or even the 'Alsatian sixth', because of its German and French connections. The other enharmonic equivalent is the dominant of the Neapolitan, a distant but equally familiar relationship which was used to devastating effect in 'Pianists' from *Carnival of the Animals*. There is nothing at all complicated about this well-defined classical resource, which we can find in Haydn

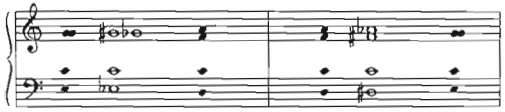
and Mozart and everybody since; my point in mentioning it here is that the relationships implied by these enharmonic ambiguities are still well within the familiar contexts of diatonic tonality. An augmented sixth chord in Haydn or Mozart behaves as a chromatic detail of secondary-dominant function, or less frequently as a pivot chord in a modulation between two keys which themselves are well-defined diatonically.

Let us move on to a chromatically altered chord of a type which is more specifically characteristic of nineteenth-century chromaticism, a harmonic type that is relatively unfamiliar even to harmony teachers. I cite it here because it is first of all an extension of the augmented sixth chord idea, because it demonstrates tendencies to resolve by chromatic contrary motion of altered factors, and because it is of sufficiently rare occurrence that in a half-dozen examples one might well find as many *different* resolutions for it. I refer to the so-called triad with simultaneously raised and lowered fifth. The diagrams in Example 4 and the examples which follow show various archetypes of the chord, which is traditionally formulated as an altered tonic triad, more often with minor third arising by passing motion.[2] The fifth is raised and lowered

Example 4*a* Tonic triad with raised and lowered fifth



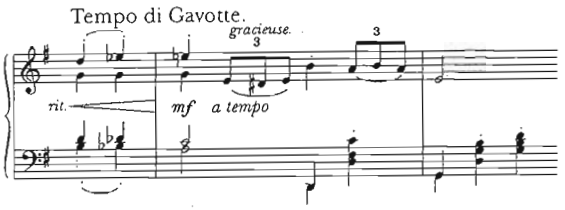
4*b* *Poor Butterfly*



as a consequence of passing motion upward to the major sixth degree and downward to the fourth degree; the root remains where it was. It is rare that the spelling of the chord ever includes the lowered fifth actually notated as such; enharmonic spellings are the rule, generally so as to allow the chord to be spelled like a dominant seventh of some kind. The major form maps with the whole-tone scale (note enharmonic equivalence with the French sixth); the minor is an enharmonic equivalent of the 'Swiss' and German sixths, and may function as a reverse of the 'Swiss' (see Example 4*b*). The most familiar

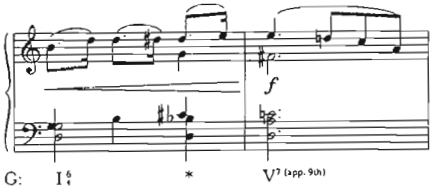
[2] See Walter Piston, *Harmony* (5th rev. edn. ed. and enlarged by Mark DeVoto, New York, 1987), ch. 28.

Example 5 Wm. Loraine ('Composer of SALOME'): Carol of the Bobolink

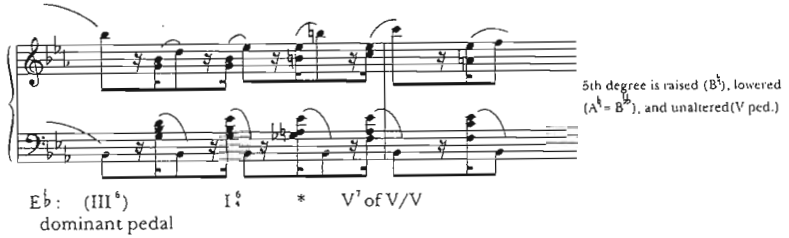


archetype, that of an enharmonic reverse 'Swiss sixth' chord, I give here as Example 5, in an excerpt from an item that I found in a friend's piano bench, and that is thoroughly typical, even a cliché, of the salon styles of the turn of the century, from *Poor Butterfly* to *The Rosary*. I include three additional excerpts, Examples 6–8, all of them from very familiar works. From the standpoint of this paper, the most instructive example is certainly Example 8,

Example 6 Brahms: Piano Trio in C, Op. 87, I

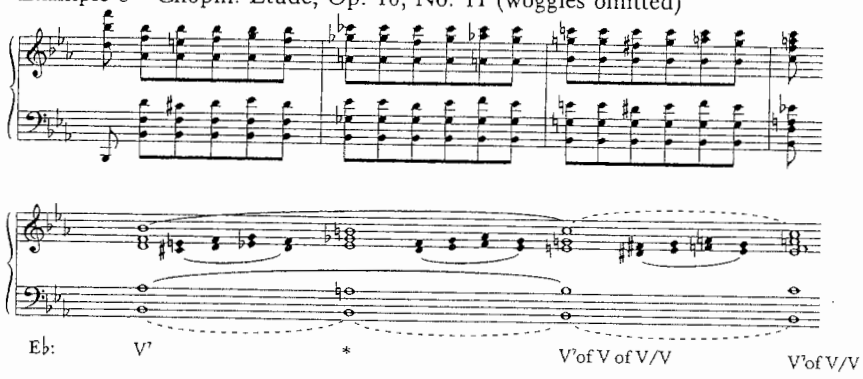


Example 7 Schumann: Fantasy in C, Op. 17, I



from Chopin's Etude in E flat, Op. 10, No. 11, which should make us beware of all functional analyses of chords of this degree of complexity. We can see it spelled very much, though not exactly, as in the Schumann example, Example 7. We will have trouble, however, identifying it as a chromatically altered tonic triad. In the Chopin example, it arises by passing motion, by stepwise chromatic alteration, from a dominant seventh chord; in fact, it would be perfectly plausible to notate the C flat as a B natural, the G flat as an F sharp, and even the E flat as a D sharp—in effect chromatically raising the entire dominant seventh chord. And why not, since it is an entire chord moving by passing

Example 8 Chopin: Etude, Op. 10, No. 11 (woggles omitted)



motion to the chord a diatonic half-step higher than itself (i.e. B to C, F♯ to G, D♯ to E, A to B♯)? Perhaps it is easiest to identify it as a non-harmonic chord, as a passing chord between V^7 and V^7 of V, this despite its sonic identity with the tonic five-plus five-minus that we have seen in the other examples. Chopin's own context makes the contrapuntal meaning of the chord absolutely clear; he surrounds the chord itself, its predecessor, and its successor with upper and lower neighbour chords, some of which are as exotic in their intervallic make-up as anything one might find in the twentieth century.

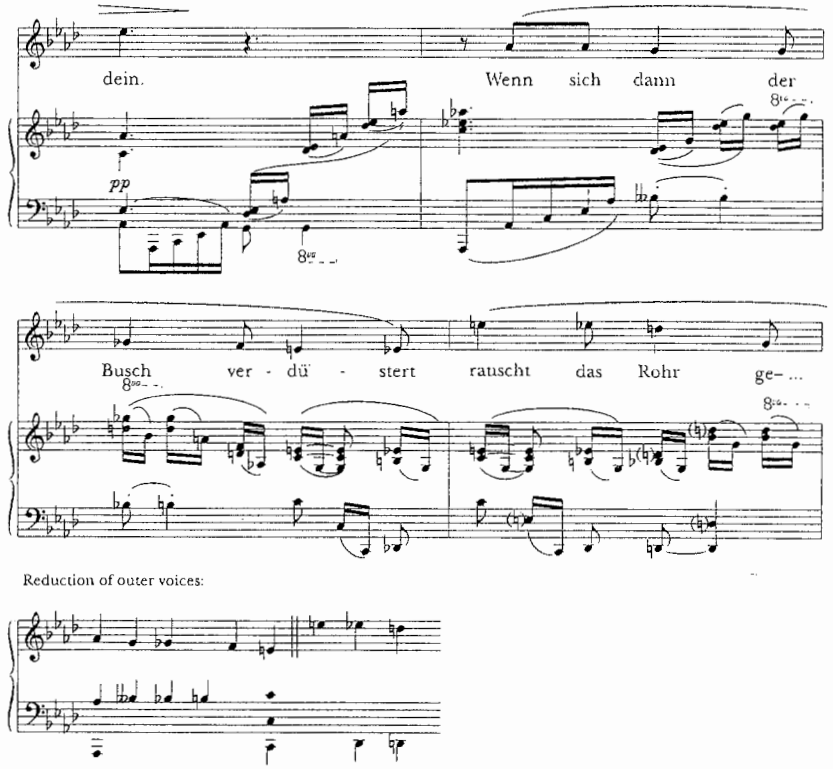
What we have with this exotic tonic five-plus five-minus is a harmony that above all is the result of a contrapuntal configuration. It is not one that has clearly identifiable root function, at least, not one that can readily be perceived. One certainly doesn't hear this chord as a species of tonic triad, one that could substitute in different situations for the unaltered tonic triad. In other words, it is an appoggiatura chord, in which altered degrees substitute, as tendency tones, for unaltered ones. And we have seen that despite its burden of altered tones, each of these having a tendency towards a specific resolution, the chord itself can resolve to a variety of different harmonic configurations, which themselves are variously stable.

I do not propose to discuss here the extent, although we may well agree that it is considerable, to which creeping is a defining condition of late nineteenth-century chromatic harmony, encompassing Wagner and Bruckner and Franck and even Fauré and Debussy, and despite my definition of the term 'creeping' I am hardly the first analyst to draw attention to the principles I have defined. But the chromatic harmony of the turn of the century was the wellspring of Alban Berg's formative years, and we have a good idea of what he studied, heard performed, and loved most in music, right up to Schoenberg's works. And here I state my belief that, more than any other aspect, *creeping* illustrates Berg's link with his own Austro-German tonal harmonic heritage. We can see it as a primary defining condition in his earliest works, right up to Op. 6, which is

as far as I shall examine it in any detail here; but it is still an abundant characteristic of all the later works, even the twelve-tone works.

My first example, Example 9, is taken from Berg's *Schilflied,* the second of his *Seven Early Songs,* and in fact one of the three songs in that group dating from the spring of 1908, the last of the group to be composed. The example shows Berg's youthful but mature tonal language in a context not much different, say, from a song by Hugo Wolf. Two aspects are especially to be noted. One is the relative weakness, over the whole phrase, of the sense of tonal progression. The other is the strong melodic-contrapuntal unity that offsets this weakness, a unity that is powerfully enforced by the wedge motion of the outer voices, as shown in the reduction. Wedge motion is a special and symmetrical aspect of creeping, and one that Berg especially loved, one that suggests his later fondness for mirror symmetries in melodic inversions. In this example the harmonic vocabulary, though complex, is still familiar. The French sixth chord used as a dominant in the second half of measure 9 is a chromatic neighbour chord; the A natural should be B double flat, and the

Example 9 Schilflied, mm. 9–12 (after ms. by a copyist, probably 1908–11)



other way around in the bass of measure 10, where the chromatic wedge in the outer parts begins, converging eventually on the octave D in measure 12.

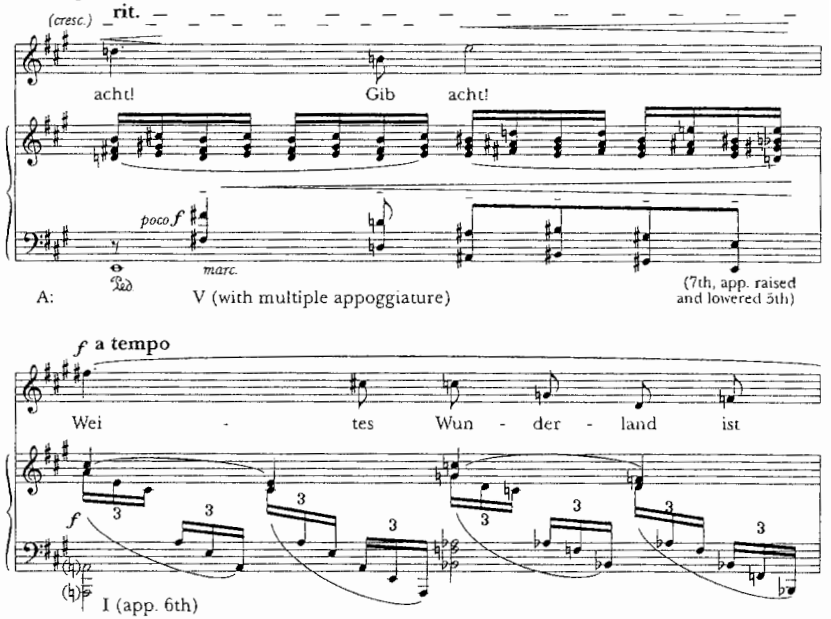
It did not take Berg a long time to graduate to more sophisticated wedge patterns. Example 10 shows the opening bars of *Sommertage,* written around the same time as *Schilflied.* The meticulous phrasing indications and the subtle, barely visible double stem on the G flat in the second measure were added in the final version. In these measures the wedges are constructed out of chromatic scale segments within which a perfect fourth has been interpolated.

Example 10 *Sommertage*, opening measures

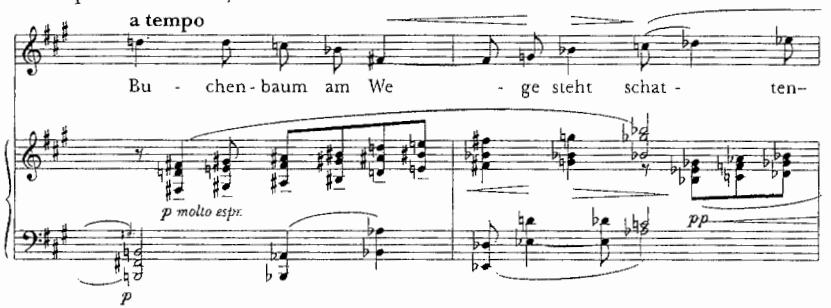
One wonders why Berg did not save the most spectacular song of the seven, *Nacht,* for last instead of putting it first as he did. *Nacht* is a fascinating harbinger of symmetrical harmony such as we will see more concentratedly in his Opp. 1 and 2. The whole-tone premise of the piece is combined with another: a world of A major that is constantly fluctuating with other keys and with mixed modes. One finds extensive whole-tone melodies submerged in whole-tone harmonies or, just as often, whole-tone melodies embedded in demonstrably tonal progressions. In the latter case, one finds the dominant triad or seventh chord with creeping fifth upward or downward à la Scriabin, as in the spectacular cadence of Example 11. The dominant strength of the cadence is plain enough, but the harmony of the upper parts is marked by chromatic creeping, with the main whole-tone melody below, above the bass.

A comparable example is found in measures 19–20 (Example 12). The whole-tone harmony of the upper and inner melodies and collateral major thirds is offset by the B minor triad which initiates the progression; perfect fifths, or complete triads, which do not map with the whole-tone scale, do not appear again until the end of the phrase, but seventh chords without fifth, major ninth chords without fifth, and various whole-tone-mapping appoggiaturas dominate the sound. Yet the bass has that big motion of a perfect fifth, the tonicizing motion. The strongest tonicizations in this song are still classical, namely root-position V–I motions, despite the expansive variety of temporary tonics in this relatively short piece of 38 measures. One comes to suspect that when the bass does not move by this kind of motion, it will by and large move chromatically, as part of a longer line than the immediate tonicizing root-motion; or it will move by a combination of the two, namely by tritone, that

Example 11 *Nacht,* mm. 8–9



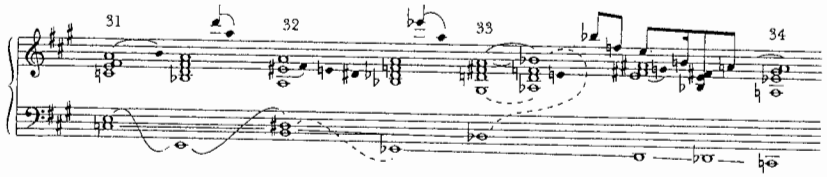
Example 12 *Nacht,* mm. 19–20



interval being the perfect fifth minus the chromatic step. (And this accommodates both the chromatic and whole-tone domains, the latter by including the French sixth, made up of two tritones a step apart.)

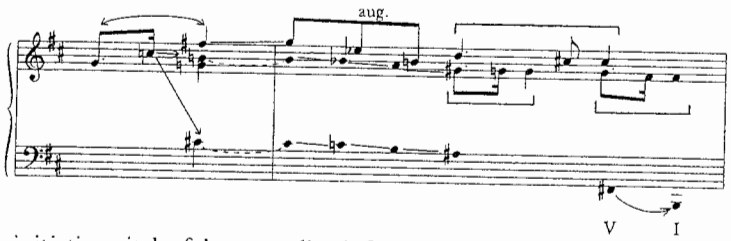
Measures 31–4 of *Nacht* have harmony about as rich as Berg ever wrote in the tonal world (see Example 13). The reduction shows several of the most prominent elements: the sustained A in the voice with its brief but very strong upward creeping to B♭/A♯ and down again, a large neighbour-note motion after all; and the two chromatic lines in the lower voices, starting from C and E in measure 31, E being the nominal 'dominant' of the song, where the bass eventually winds up at the end.

Example 13 *Nacht*, mm. 31–4, reduction of accompanimental parts



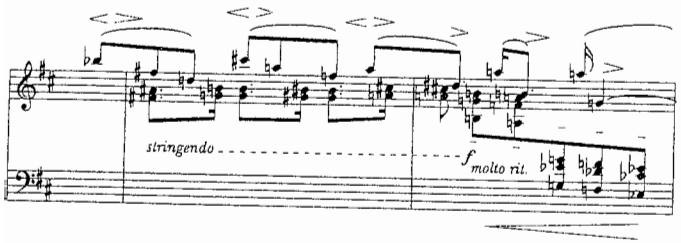
In Berg's next works, the Piano Sonata, Op. 1, and the *Four Songs*, Op. 2, creeping, especially symmetrical creeping, generates a rich but evanescent tonal vocabulary of altered triads, sevenths, and ninths, fourth-chords, and a variety of other harmony. In the opening measures of the sonata (Example 14) the harmony is guided by two lines of minor sevenths, between bass and alto. The

Example 14 *Piano Sonata*, Op. 1, opening measures, schema



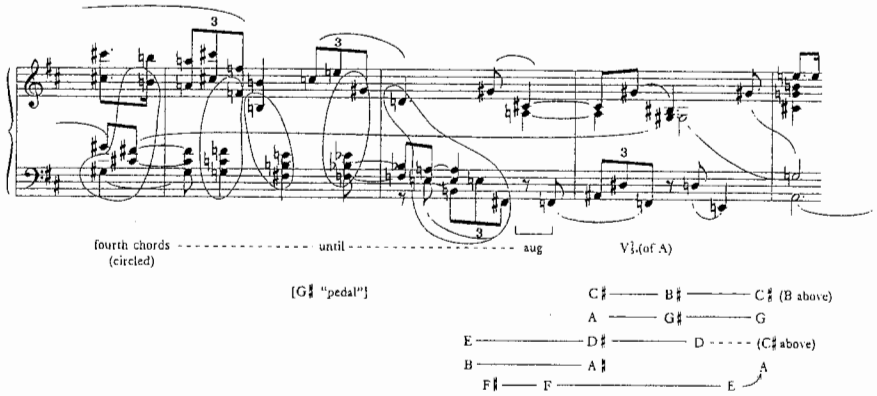
initiating pitch of the upper line is B, the structural tone centre; it is approached by a reaching-tone C, following a G which remains as the only constant element in the phrase. The upper-octave G is the high point of the phrase, but also the initiating pitch of a descending augmented triad, a whole-tone element which is harmonized, if you like, by the chromatic scale segments beneath it. This opening phrase, slightly more than three measures, defines a substantial portion of the tonal and harmonic basis from which the entire Sonata evolves. Only four bars later (Example 15) the one-to-one pairing of chromatic and whole-tone elements becomes much more explicit, with both whole-tone and chromatic types ascending in measure 7, whole-tone descending in measure 8.

Example 15 Piano Sonata, mm. 7–8



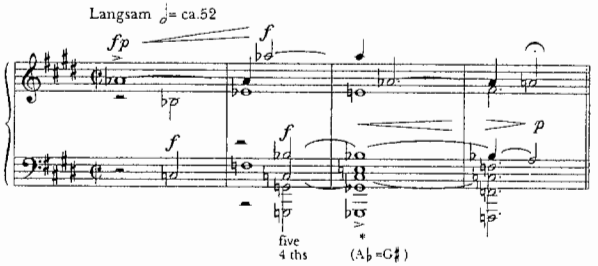
The climax of the first section of the exposition shows Berg's creeping universe enlarged to include something not met with before in his work: quartal harmony (see Example 16). The fourth-chords are initially part of an emerging

Example 16 *Piano Sonata*, mm. 26–30 (some markings omitted)



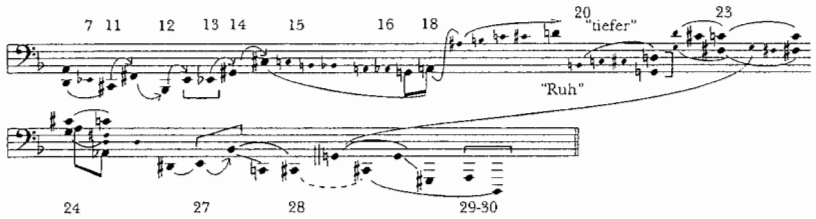
left-hand harmony with upper elements occasionally added by the right-hand melody, as the example shows. The left-hand line moves downward chromatically, until measure 28, when the fourth-chord creeps into a major triad, then back to an upper fourth-chord arpeggiating to a chord of four perfect fourths; this sonority then creeps differentially in all parts through another whole-tone chord of the dominant-seventh with raised-fifth type; only the G♯ in the upper voice remains constant, until the cadence in the next phrase (notice the slur between the two staves). The obvious model for Berg's Piano Sonata, harmonically as well as formally, is Schoenberg's Chamber Symphony, Op. 9, whose very *Grundgestalt* is a four-measure motto consisting of a fourth-chord creeping to a dominant seventh with raised and lowered fifth, creeping to a major triad (see Example 17).

Example 17 Schoenberg: Chamber Symphony, Op. 9, beginning



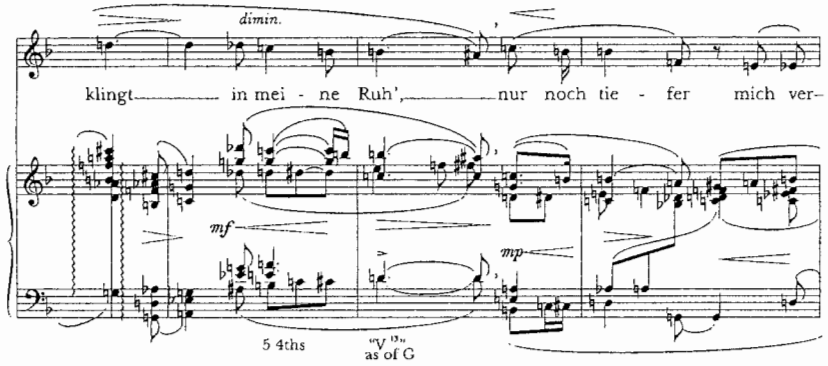
Example 18, showing the bass motion of the entire first song from Berg's Op. 2, illustrates the contrast between tonicizing motions (arrows) and chromatic creeping, the former marked at various places by chords supported by a perfect fifth in the lower voices. Berg's use of a fourth-chord at the second

Example 18 Op. 2, No. 1, bass motion



climax of this song, at measure 18, is more explicit than in the Sonata, as is its creeping origin (see Example 19). Here the chord is made up of five perfect fourths, and it is only a short distance conceptually to the chord of eleven perfect fourths in measure 66 of *Reigen,* Op. 6, No. 2, as we will see. Beyond

Example 19 Op. 2, No. 1, mm. 18–20



that, one looks ahead to the Lullaby scene in *Wozzeck,* in which a harmony based on stacks of perfect fourths is varied with a harmony originating in creeping lines of perfect fourths. Let us look a little more closely at how the fourth-chord in Op. 2, No. 1 originates contrapuntally. The outer voices converge chromatically, D♭ to C and A♯ to B; the inner D♭ rises to D, the E♭ rises to E; the G in the left thumb rises by whole step to A, while the G in the middle of the right hand stays where it was at the beginning of the measure: six factors, one of them remaining fixed, one moving by whole step, and four moving chromatically. How does the chord resolve, if that is the right word? The outer voices, as might be expected, are the ones which most prominently

continue the creeping motion, maintaining their chromatic convergence; the D♯ in the right thumb moves up to E; the E in the middle of the left hand moves down by whole step to D, converging with the bass; the interior A and G dissolve, that is, they just drop out; and an interior C is added as though out of nowhere, in the right thumb. This resolution derives in part from considerations of tonal harmony, a dominant thirteenth in G major, just barely, leaving out the tonicizing eleventh, which is G.

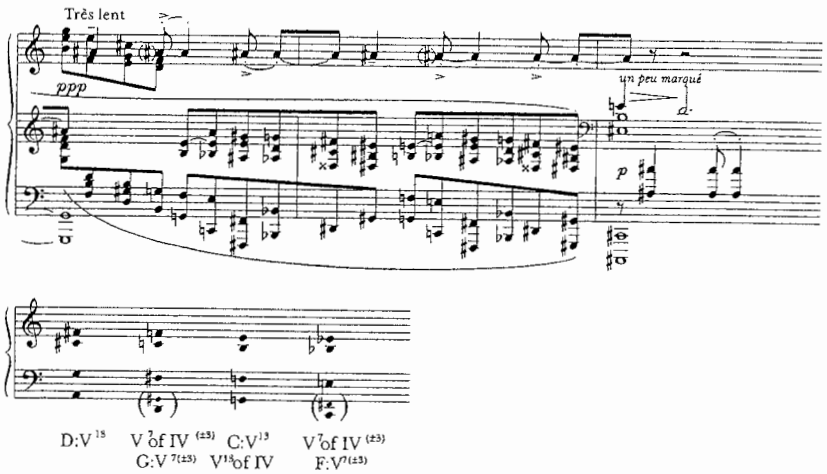
In the second and fourth songs of Op. 2 we can begin to see the emergence of Berg's predilection for certain kinds of special symmetries. The second song begins with a sequence of French sixths, but in the uncustomary root position, with circle-of-fourths motion in the bass. The French sixth, which can be analysed intervallically as a dominant seventh with chromatically lowered fifth, is a chord that maps completely with the whole-tone scale; in sequence, it moves chromatically downward, thereby bridging the chromatic and whole-tone domains by contrapuntal means. Most of the song is dominated by a smoothly connected (i.e. creeping) harmony that balances the whole-tone vertical aspect against the chromatic linear aspect, concluding with the same progression with which the song began.

Very similar in shape to this sequence is the sequence of appoggiatura thirteenth chords at the end of Op. 2, No. 4, in which a chord progression with a circle-of-fourths bass substitutes for a parallel chromatic succession. Of course, it represents restoration of the harmonic bass as well, contrary to the creeping upper parts. This became a favourite jazz progression later in the century, with the flexibility of alternative choices of bass notes that serve as quasi-roots a tritone apart. Example 20 is taken from my discussion in Walter Piston's *Harmony,* fifth edition. I offer it here in counterbalance to a well-known suggestion by Stuckenschmidt[3] that seems to show that Debussy, in his *Six Epigraphes antiques* of 1914, was inspired by these early Berg Songs. Stuckenschmidt apparently did not consider a more likely source, if there was one, for Debussy's progression, namely Ravel's *Le Gibet* of 1909; had he done so, perhaps he could have suggested that the Berg–Ravel friendship, which is documented from 1920 and the Vienna Verein, had begun eleven years earlier.

Berg's fondness for creeping upper harmony supported by a circle-of-fourths bass reached a point of grotesqueness in the textbook progression which appears abruptly at measures 98–101 of the first movement of the *Chamber Concerto.* We know that the circle of fourths itself is one of the three sets of the first movement of the *Lyric Suite*, but it does not play any notable role as an organizer of harmony there. One has to look more deeply into the other later works for comparable structures embodied in any kinds of vestigial para-tonal functions. The most familiar instance would be the beginning of the Violin

[3] H. H. Stuckenschmidt, 'Debussy or Berg? The Mystery of a Chord Progression', *Musical Quarterly*, 51 (1965), 453–9.

Example 20 Ravel: *Gaspard de la nuit*, II: *Le Gibet*

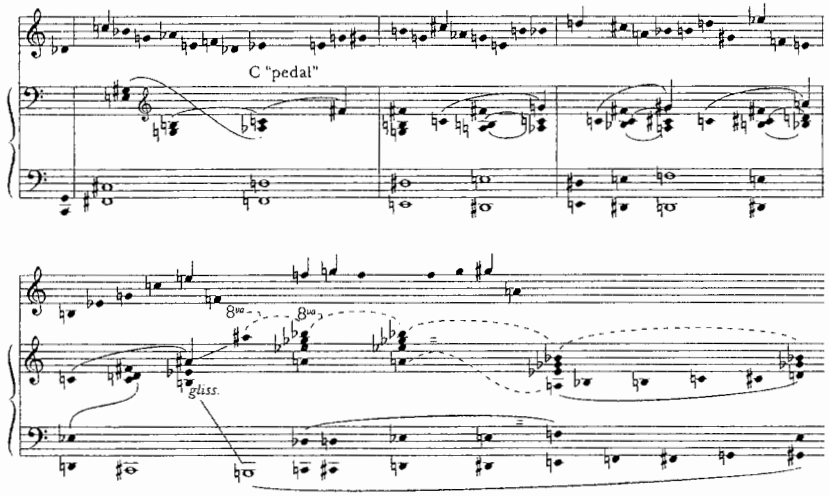


Concerto, especially after the Introduction, beginning at measure 11, where the set is displayed as a harmonic sequence, G minor triad followed by D major, A minor, and E major, with whole-tone harmony after that. An even more striking example is the V–I bass motion of Lulu's entrance music, C to F, with creeping upper parts moving in suspensions, first appearing in the Prologue at measures 44–5. In Act II, the entire Melodrama of Scene 2, from measures 953 to the beginning of Lulu's 'O Freiheit!' at measure 1001, is worked out against a subtle background of these V–I progressions, some of them sequential with perfect fourth or perfect fifth root motion in the bass, some of them with chromatic motion in the bass and the connecting root motion in the interior of the texture. One of the most poignant moments of the whole opera is in the final scene, where a fragment of this same music, with its strongly para-tonal projections, underlies the moments where Lulu takes Jack into her bedroom.

The sequence at the end of Op. 2, No. 4 is rather what we might expect with a vestigial tonality, the harmonic bass being introduced in a context where it might be, to say the least, suspicious. More characteristic is the passage at measures 12–15, with its incremental harmony and strong wedge motions in the lower parts (see the reduction in Example 21). The culmination at measure 15 dissolves in chromatically ascending lines in the lower parts under a fixed sonority in the upper.

Berg's String Quartet, Op. 3, of 1910, the last work he was to write under Schoenberg's guidance, demonstrates a musical language as remarkably mature and original as one is ever likely to see in anything that could be called a 'student work'. If the atonal language of Op. 2, No. 4 is still tentative, that of Op. 3 is superbly confident. George Perle has written extensively about the specifics

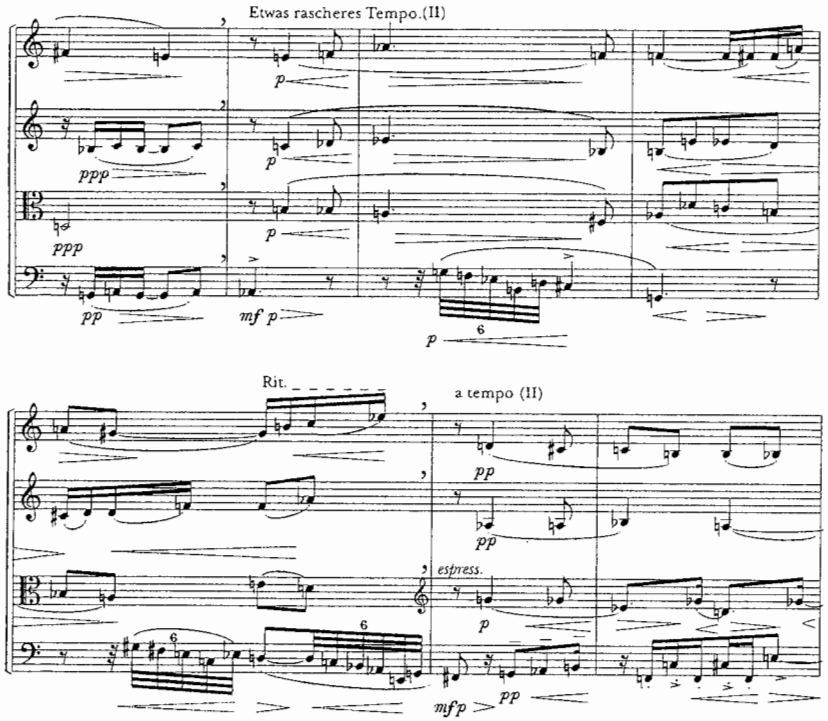
Example 21 Op. 2, No. 4, mm. 12–17, motions



of the cyclic-intervallic basis of much of Op. 3, and about the important role of the whole-tone pentad plus one odd note, and I need not dwell on these basic aspects here.[4] Rather, I wish to point to a few instances in which creeping is validated in this work as the basis of some particular structures. Let us look first at a particular motive, the simple intervallic cell of semitone plus minor third. Looking at Example 22, we see it prominently in the first violin at measures 10–11, harmonized with creeping parts below, second violin moving up by semitone and whole step, viola moving down semitonally; in measures 14–15, a quasi-reflection of this harmonization occurs, with the cell melodically inverted, in the viola above, an important new theme. Beyond what I have illustrated here, from measure 10 all the way until measure 32, the entire contrapuntal texture is saturated with this simple intervallic motive. It is not quite the same thing as an imitative texture, but there are numerous entries of the motive, rectus and inversus, which are joined to each other by chromatic scale segments in between, or by dovetailing, sometimes in counterpoint with the flourish of measures 1–2, whose final three notes are a different permutation of the same basic cell. Yet another ingredient in this motivic fruitcake is the bariolage that appears in measure 15 in the cello, alternating notes of the basic cell with a fixed tone. In what way does this extensive passage demonstrate creeping? By the connectability of the motives! Virtually everything in the passage is either a specific motive, even one as small as a bi-interval cell, or else it is a creeping, semitonal connection between motives.

[4] George Perle, 'Berg's Master Array of Interval Cycles', *Musical Quarterly*, 53 (1977), 1–30.

Example 22 String Quartet, Op. 3, I, mm. 9–15

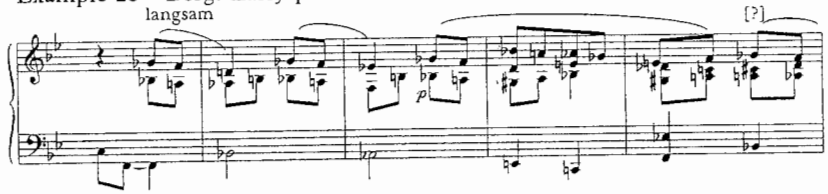


Rosemary Hilmar has recently published a previously unsuspected excerpt which enables the analyst to get a particular peek into Berg's workshop.[5] Example 23 is from a draft of an early 'Fifth Sonata', presumably from 1908 or even earlier; Example 24 shows the same melody and much of the harmony worked into the first movement of the Op. 3 Quartet of 1910. Here we can see Berg raiding an explicitly tonal context for material to be used in the para-tonal language of Op. 3.

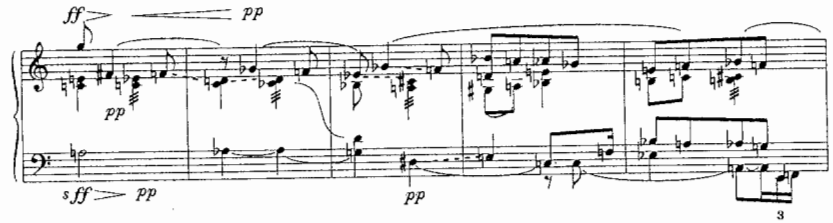
The harmonic aspect previously referred to in measures 10–11 (Example 22) is not a casual one. It is certainly not a reference to a vestigial tonality. More likely it also represents an awareness on Berg's part that a harmonization should not be too symmetrical or too systematic, lest it thereby sound too classically sequential; at the same time, the harmonization demonstrably is meant to be smooth, the supporting parts moving with stepwise contiguity at least until the

[5] Rosemary Hilmar, 'Alban Berg's Studies with Schoenberg', *Journal of the Arnold Schoenberg Institute*, 8/1 (1984), 7–29, esp. p. 24.

Example 23 Berg: Early piano sonata 'No. 5'



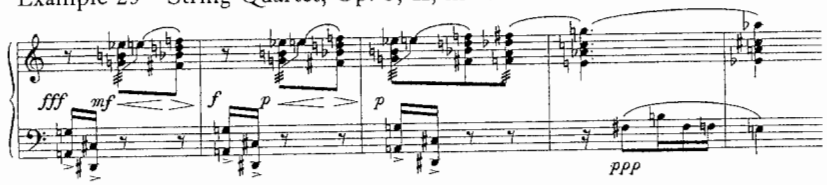
Example 24 String Quartet, Op. 3, I, mm. 126–30



chord at the end of measure 11. Above all, I think of this passage as demonstrating what I suspect, without having any way to prove it, is a profoundly important aspect of Berg's compositional creeping, namely that *it looks like something one would try out at the piano*, the upper fingers of the right hand tending to upward motion, the thumb tending to downward motion, and the middle fingers going either way.

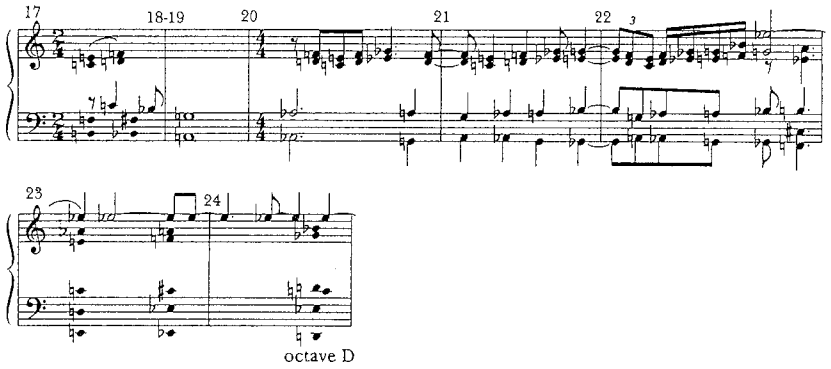
This same manual construction is even more obvious in the very prominent harmonic motive which first appears at measure 34 of the second movement, the upper part ascending by semitone, the lower three parts descending by semitone (Example 25). Of course, this motivic progression is a harmonic result of wedge motion, but one suspects it was one that Berg tried out manually over and over again at the keyboard.

Example 25 String Quartet, Op. 3, II, mm. 34–8



Wedges result from creeping within the first of the *Altenberg Songs*, Op. 4, in the middle section where the voice first enters (Example 26). The wedging voices, the bass and an interior part of a rich whole-tone harmony, diverge to an octave D; this marks the point of departure for the next climactic section, in which the pitch class D itself becomes a one-note motive. But this point of relative repose is merely the most plainly symmetrical of the wedge patterns

Example 26 *Altenberg Songs,* Op. 4, No. 1, mm. 17–24 (reduced; voice omitted)



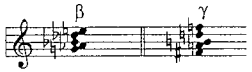
in the *Altenberg Songs,* a work in which creeping in general, and wedging in particular, become simultaneously more subtle and more structurally deep. One has only to consider the symmetrical beta–gamma progression, shown schematically in Example 27, which forms the accompanimental climax of the prelude to the first song, at measures 14–15, and the retrograde of this same progression, in the final measures of the fifth song.[6] In the first song, the entire motivic process of six different overlapping figures converges on the high-register beta chord, and then instantly on the downbeat of measure 15 this chord creeps into the gamma chord, the right thumb chromatically descending and the other fingers ascending. The transformation of the gamma chord into the beta chord beginning at measure 50 of the fifth song is especially remarkable; the reduction given in Example 28 does not really do it full justice, and I urge a close look at the orchestral score.

The most complex textures in all of Berg's works appear in the *Three Pieces for Orchestra,* Op. 6.[7] These huge pieces are Berg's equivalent of an Olympic trial, his own effort to see how far he could carry his own technical skill. They were also a fitting farewell to his own youth, before the rude interruption forced on his career by the World War. That interruption brought about a period of

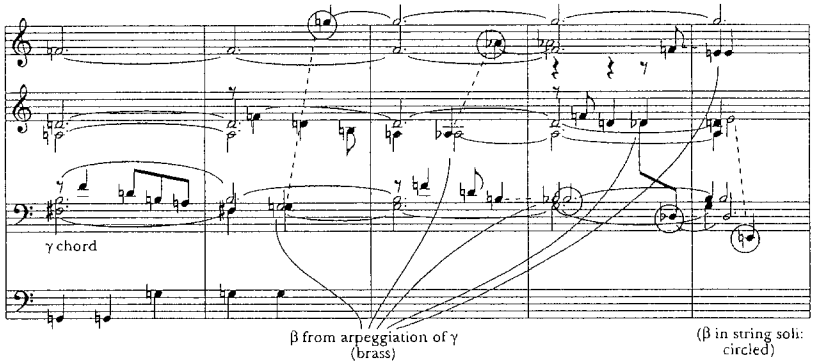
[6] A fuller analysis of these passages can be found in my own dissertation, 'Alban Berg's Picture-Postcard Songs', Ph. D. diss. (Princeton University, 1967), or in my article derived from it, 'Some Notes on the Unknown *Altenberg Lieder*', *Perspectives of New Music,* 5/1 (1966), 37–74. The 'beta' and 'gamma' designations of the present article were originally used in those essays, my only justification for retaining them here.

[7] See my articles, 'Alban Berg's *Drei Orchesterstücke* op. 6: Struktur, Thematik und ihr Verhältnis zu *Wozzeck*', Rudolf Klein (ed.), *Alban Berg Symposion Wien 1980: Tagungsbericht, Alban Berg Studien,* ii (Vienna, 1981), 97–106; and 'Alban Berg's 'Marche Macabre' ', *Perspectives of New Music,* 22 (1983–4), 386–447; see also Bruce Archibald, 'The Harmony of Berg's *Reigen*', *Perspectives of New Music,* 6/2 (1968), 73–91.

Example 27 *Altenberg Songs*, Op. 4, No. 1, mm. 14–15, schema



Example 28 *Altenberg Songs*, Op. 4, No. 5, mm. 50–4



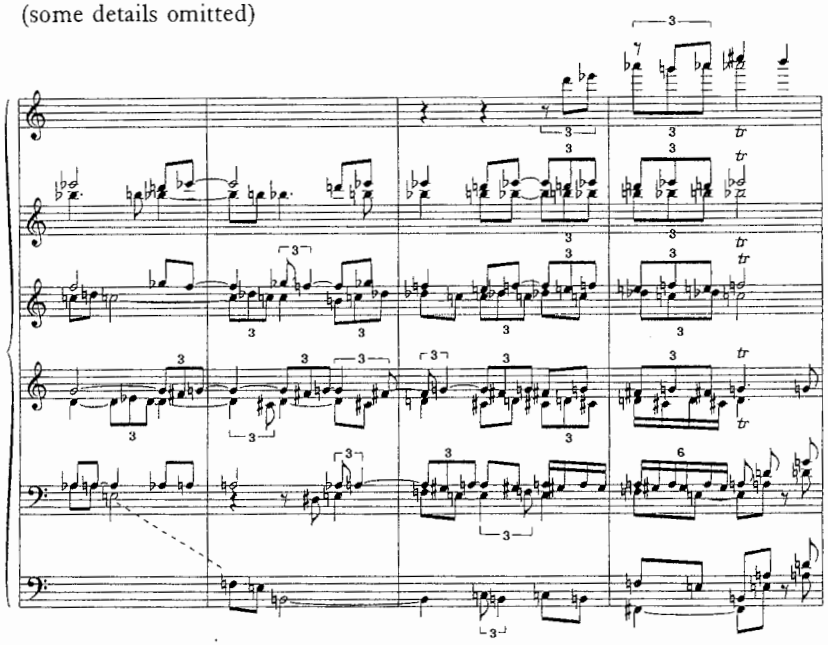
soul-searching, enabling him to discern very clearly the direction of his future efforts in operatic composition. They also represent a culmination of a motivic tendency in his work which he did not pursue further, in that, putting it crudely, some parts of the *Three Pieces,* especially the *Marsch*, are so densely motivic that there is no room even for any kind of para-tonally regulated harmony. The harmonic values of the *Three Pieces* are generally displayed in textures that are relatively spare motivically, or where a particular harmonic structure is itself given motivic prominence, but these occasions are less frequent than the comparatively abundant episodes of massed motivic textures. The Präludium, in particular, is dominated by harmonic motives in its outer sections, which are formally delineated by the use of a chord series and its partial retrograde, with a good deal of creeping connectability.

There are relatively few places in the *Three Pieces* where any creeping is regulated by anything so absolute as a precise symmetry or mirror reflection, as in the *Marsch,* measures 130–3. Such precise wedge formations as those I have already referred to in the earlier works, and of which some notable examples can also be found in the *Clarinet Pieces,* Op. 5, are hardly to be found at all in Op. 6, although there are some approximations that are particularly intriguing. But generalized creeping is still very much a part of the contrapuntal world of Op. 6. Most often, creeping is used as a connective process, to join up motives, even simply as a chromatic transposer, as in the several chromatic transpositions of the seven-note canonic subjects of measures 85–90 of the *Marsch.* The most reductive characteristic of creeping, the chromatic scale

itself, is a regular inhabitant of this total environment. I have not found any particular structural reason, for instance, for the maintenance of a pedal-point in the bass on F for nearly 14 measures in the *Marsch*, from m. 111 to the end of m. 124, when it begins to descend chromatically, eventually reaching a low A♭ in measure 130 before vanishing into something else. Certainly this isn't something that is easy to hear, but then very little of anything is easy to hear in the *Marsch*.

Creeping applied systematically to a chordal texture is illustrated by the six-part chord beginning at measures 160–1 of the *Marsch*, the chord whose chromatic ascent Stravinsky compared to the Drowning Music in Act III of *Wozzeck*. The chord ascends upward chromatically in six parallel parts, which, at various points in their ascent, turn around and descend, or even around again, with everything eventually converging on a central unison D. This is an example of dissolution by creeping, comparable to the gamma chord in the first of the *Altenberg Songs*. On the other hand, in *Reigen*, a stack of three perfect fourths grows by cumulation of fourths above and below, while each of its parts is ornamented by variously oscillating upper and lower chromatic neighbour-notes—stationary creeping, or 'wiggling', if you like—until in measure 66 there is a stack of eleven perfect fourths, and all the tones of the chromatic scale (see Example 29). The creeping here is not an aspect of harmony but of sound and

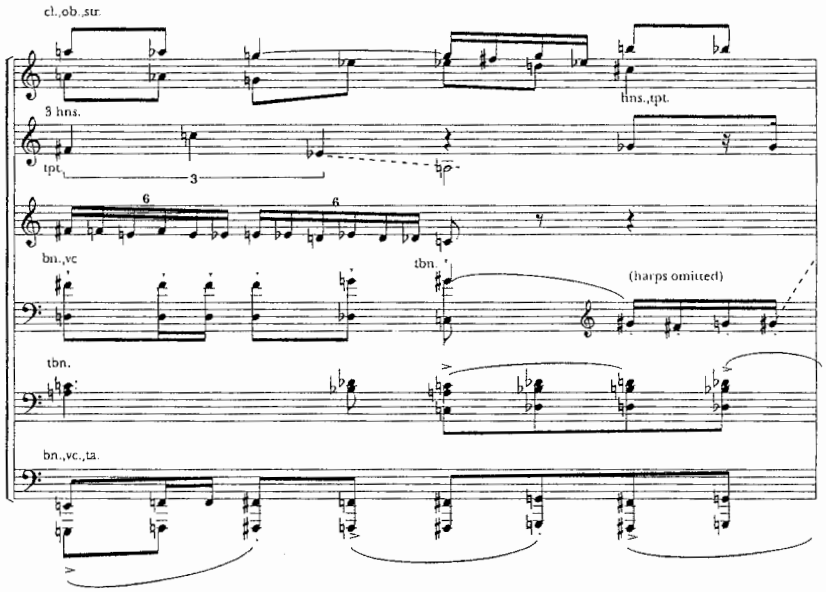
Example 29 *Three Pieces for Orchestra*, Op. 6, II: *Reigen*, mm. 63–6 (some details omitted)

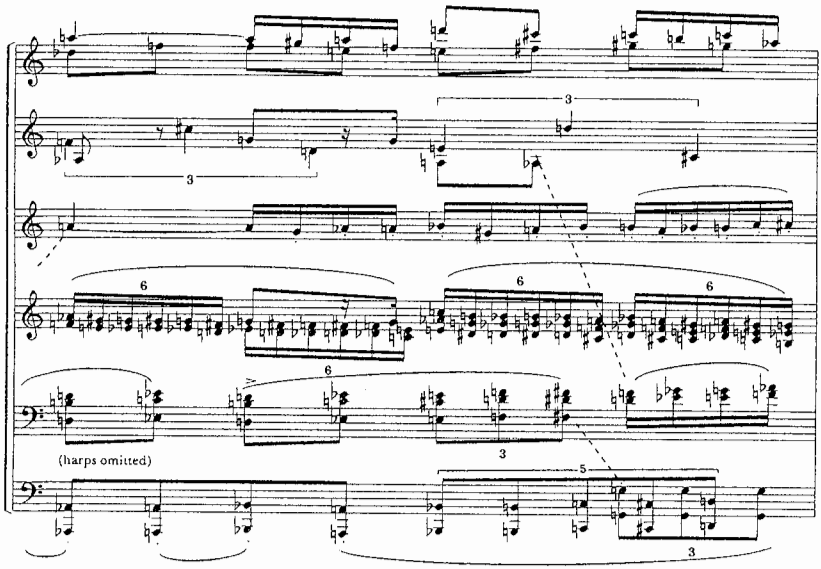


texture. So, too, is the passage at measures 105–6 of the *Marsch*, my last example, Example 30, which I think reaches an ultimate in creeping in Berg's works. In writing out the reduction for this example I have placed the motivic parts above, and the creeping parts below them, so that the creeping can be seen in all of its exaggerated richness. But again it must be emphasized that in the *Marsch* creeping is principally an aspect of texture, and only to a much lesser extent an aspect of control of harmony. The *Marsch* thus marks a departure from the other two pieces in the set, in which there is always a more definite perception of harmonic progression, with a demonstrable connection from chord to chord, a connection in which creeping is often the most prominent defining condition.

In *Wozzeck* it is easy enough to point to important instances of creeping—the wedge structure of the 'knife' motive, for instance, or the second 'variation' of the chord series in Act II scene 4, at 'Vergiss mein nicht! Bruder!', where the chords are connected to one another by chromatic passing-tones, or the motive 'Ach, Marie!', or any of numerous accompanimental or transitional passages which one can just imagine Berg savouring as he tested them out patiently on his Bösendorfer. But creeping is, in fact, less important as a generative element in *Wozzeck* than it is in the earlier works, albeit still a very important one. The reason is not hard to find: the maturity of Berg's large-scale sense of structure in *Wozzeck*, above all the aspects of structure that are

Example 30 Three Pieces for Orchestra, Op. 6: III, Marsch, mm. 105–6





precisely motivated by the drama. The para-tonality of *Wozzeck* is regulated by specific tone centres, by motives, by abstract formal devices, even by specifically tonal structures—and by creeping as well. It is one more tool in the workshop.