

TONAL AND EXTRATONAL FUNCTIONS OF THE AUGMENTED TRIAD
IN THE HARMONIC STRUCTURE OF WEBER'S 'DEHMEL SONGS'

By

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ABSTRACT:TONAL AND EXTRATONAL FUNCTIONS OF THE AUGMENTED TRIAD
IN THE HARMONIC STRUCTURE OF WEBERN'S 'DEHMEL SONGS'

The composing of the 'Dehmel Songs' marks a pivotal juncture both in Webern's oeuvre and in the history of music in general. The years that saw the birth of this cycle of five songs, 1906-8, comprise what is generally regarded as a period of transition, in the work of Schoenberg, Webern and Berg, from a 'late tonal' style of composition to an early 'atonal' style. In this study I approach the 'Dehmel Songs' from the perspective that its harmonic structure as a whole can be rendered intelligible in a theoretical way by combining a simple pitch-class-set analysis, which essentially involves graphing the pattern of recurrence of the 'augmented triad' as a motivic harmonic entity--a pattern which is in fact serial in nature--through the course of the unfolding harmonic progression, with a tonal interpretation that uses that pattern as a referential pitch-class skeleton. In this way I show that the tonal structure of these songs is congruent with an expressive effect comprised by the serial patterning. The latter effect I term extratonal, by which I mean that the intelligibility of such patterning is not necessarily contingent upon a perceiving of the pitch-classes involved as having tonal-hierarchic meanings. I am concerned, therefore, with three sorts of expressive effects arising from the harmonic structure of this music: tonal and extratonal effects and effects of congruency between tonal and extratonal patterning.

I set forth a theoretical framework for the analysis by developing some criteria with which to distinguish various ways an 'augmented triad'--any pc-set 3-12 [0,4,8] occurring as part of a harmony--could conceivably arise in a tonal-harmonic

progression, thereby deriving a vocabulary of distinct triad-types. The most basic premise of my characterization of tonal functions of a pc-set occurring as part of a harmony is that each distinct harmony in a progression can be perceived as having a prevailing root (a psychoacoustic phenomenon), such that a pattern of recurrence of a set-class is heard tonally as overlaying a perceivable root progression.

Study of the songs takes the form of commentary on a series of graphic analyses of their pitch-structures. The graphic analysis consists of a chorale-style rendering of the harmonic progression which attributes an appropriate diatonic 'spelling' to each harmony so as to characterize the tonal-hierarchic functions of each of its component pitch-classes with respect an immediate voice-leading context, a Roman-numeral-style analysis of the root progression which reflects the hierarchic overlayings of allusions to various referential tonics, and a jazz-style characterization of each pitch-class component of a harmony in terms of its scale-degree function with respect to a locally prevailing root--essentially, then, a "figured-root"-style characterization of each harmony, as opposed to a traditional figured-bass analysis. The format of the tonal-harmonic analysis in the graphs facilitates a simple representing of an extratonal skeleton formed by the pattern of recurrence of the augmented triad so that the graphs clearly reveal something of the nature of the congruence between the tonal and the referential extratonal patterning.

In the first part of the study I discuss in turn each of the triad-types occurring in the songs. Each is defined, with reference both to abstract chorale-style examples and to examples from the songs, in terms of the kinds of contrapuntal contexts which would tend to concretize an instance of that type as such. As assembling of a series of type-models proceeds, such definition gradually comes to include consideration of functional relationships associating particular transpositions of various types; in the process each type-model is invested with a range of possible sorts of tonal meanings.

At the same time, consideration of tonal functions of particular type-instances in the songs serves as a referential scaffolding around which to build interpretations of the tonal designs of the voice-leading contexts in which they occur. In this way I gradually assemble a collection of analyses of foreground and middleground progressions in sections of each song and in passages spanning connections between songs.

The second part of the paper constitutes an interpretation of the background structure of the song cycle which draws together the various pieces of analysis gathered in the first part by relating those to the effecting, towards the end of the third song, of a major pivotal juncture in the song cycle as a whole, and to the large-scale effectings of recapitulation in the fourth song and of closure in the fifth. In the course of this background analysis I am eventually able to propose a tonic key with reference to which one may take one's ultimate tonal bearings in these songs. I further suggest what relevance the issue of an unequally-tempered, as opposed to an equally-tempered, circle of fifths might have with respect to the song cycle's tonal and extratonal structure. Finally I offer a hint as to what sorts of issues might be relevant as regards the relationship between the harmonic structure and the structure of Dehmel's text in the songs. With reference to the conception of the songs as being in a key, I then attempt to clarify in a theoretical way what Webern might have meant when, in the course of his lectures of 1933, entitled The Path to the New Music, he characterizes in a poetic way, with the terms "invisible tonic," "suspended tonality" and "the farthest limits of tonality," the radical nature of his compositional experiments during the years 1906-8.

On the basis of the demonstration that, in the 'Dehmel Songs', the effecting of a congruence between tonal and serial effects of pitch-patterning produces a formal coherence which extends from the foreground to the very deepest levels of structure, I suggest that this analytical approach may serve as a model for future attempts to hear

tonal-hierarchic relationships in the pitch-structures of Webern's later pre-serial and serial works, works that have been rendered intelligible in a theoretical way using pc-set analysis, but that are, so far, little understood in terms of their tonal structures. A suggestion is Implicit, of course, that at least some aspects of the analytical technique might be useful as well in refining analytical approaches to the harmonic structures of more conventional tonal works.

TABLE OF CONTENTS

ABSTRACT.	ii
LIST OF ILLUSTRATIONS.	viii
ACKNOWLEDGEMENTS	x
Chapter	
1. INTRODUCTION	1
2. THEORETICAL CONSIDERATIONS.	11
Preliminary remarks: toward an epistemology of root-consciousness.	11
Criterion for characterizing tonal-harmonic functions of a pitch-class, a harmonic interval and an augmented triad	16
Format of the graphic analysis	34
3. GROUP 1 TRIAD-TYPES.	37
Type I	37
Type II	44
4. GROUP 2 TRIAD-TYPES	54
Types III and IV	54
Type V.	64
5. GROUP 3 TRIAD-TYPES.	70
Type VI	70
Type VII	75
Type VIII	83
Type IX	85
Types X and XI	89
6. GROUP 4 TRIAD-TYPES.	97
Type XII	97
Type XIII	108
7. AN ANALYSIS OF THE 'DEHMEL SONGS' AS A WHOLE	113
Introduction	113
An analysis of the closing passage of 'Himmelfahrt'	116
A referential background skeletal root progression	124
The closing passage of 'Himmelfahrt' as a major pivotal juncture in the song cycle	130
The serial skeleton in the first three songs as helping to concretize a sense of recapitulation in 'Nächtliche Scheu'	135

An overlaying of the skeletal root progression with a continuation of that pattern in 'Ideale Landschaft' - 'Nächtliche Scheu'	143
Meaning(s) of the closing Db(C#) harmony of 'Helle Nacht' in a referential tonic key of D minor	145
The pivotal function of D major harmonies in anticipation of the referential C and B tonics in 'Helle Nacht'	147
The overlaying of veiled tonicizations of D minor and G minor in 'Himmelfahrt' - 'Nächtliche Scheu'	149
The sense of hearing F# minor as the "invisible" tonic key of the song cycle	150
The relevance of the issue of unequal temperament to the tonal effects discussed	156
The sense in which "the farthest limits of tonality" could mean: the limits of usefulness of a particular theory of tonal harmony	159
Conclusion	163
EXAMPLES	167

ILLUSTRATIONS

Figure

1. Examples of sorts of contexts which would tend to concretize the perception as such of some of the more unusual scale-degree-functions distinguished in Table 1	22
2. Derivation of plausible augmented-triad- <u>types</u> from lists of plausible scale-degree functions for a pitch-class arranged into four cycles of major thirds, each cycle corresponding to one of four <u>groups</u> of types; derivations are further subdivided in each group according to type- <u>kind</u>	26
3. A series of functionally equivalent augmented triads of Kind U	32
4. Various plausible sorts of withdrawals from a harmony comprising a Type I triad	36
5. Various types of contrapuntal patterns which would tend to help concretize the function of a #5th of a Type I triad as such	37
6. Various sorts of contrapuntal contexts which would tend to concretize the function of a Type II triad as such	45
7. Functional equivalence amongst Group 1 and Group 2 triad types	55
8. Various sorts of approaches to and withdrawals from a Type IV triad which would help concretize it as such	56
9. The Type V and its functional equivalents	65
10. Typical sorts of voice-leading contexts in which a Type VI might occur	70
11. Contexts in which a Type VI could be understood to occur and in which it could be understood as part of an overlaying of references to two or three tonics a major 3rd apart	74
12. The Type VII and its functionally equivalent Type I	76
13. Sorts of contexts in which a Type VII could be understood as such.	77
14. A comparison of the Type VII and its functionally equivalent Type I	84
15. A comparison of the Type XI and Type VII and their respective functionally equivalent Group I triad-types (Type II and Type I)	86
16. Sorts of contexts in which a Type XI could be understood to occur amidst an overlaying of references to two tonics a half step apart	87
17. The Type X and its Type VI, Type I, and Type VIII relatives	91
18. A context in which a #°II° chord would be understood as such and one in which a #°II° could be understood to comprise a Type XI component	92
19. A 'passing 6/4' as compared to a cadential 'appoggiatura 6/4' in terms of root perception	98
20. Typical sorts of ways a Type XII could be heard to function in context	99
21. Sorts of contexts in which a harmony comprising a Type XII component does not have a root in the bass, i.e., it is not a '6/4 chord'	100
22. Comparison of a potential function of a Type XII and that of its functionally equivalent Type II	100
23. A pattern comprised by in the succession of augmented triads in ms.27-29 of 'Ideale Landschaft'	102
24. Comparison of a mirror pattern comprised by the progression in 'Ideale Landschaft', ms.22-31 and an amplified version of that pattern comprised by the progression through 'Am Ufer' as a whole	106
25. Plausible sorts of withdrawals from which would help concretize the understanding of a Type XIII component as such	108
26. Sorts of contexts in which a Type XIII could be understood to arise amidst a dovetailing of a progression in a minor key with one in the key of that key's bVI or bii	109

ILLUSTRATIONS (cont'd)

27. The serial skeleton spanning 'Ideale Landschaft', m.1 - 'Nächtliche Scheu', m.1	136
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Table

1. Conceivable harmonic functions for a pitch-class with respect to a root	20-21
2. Conceivable ic4 types (in terms of the number of diatonic steps embraced)	24
3. Conceivable triad-types	28-29
4. Various meanings the closing Db(C#) harmony of 'Helle Nacht' can be understood to have in the key of D minor	146

Example

1. A tonal progression comprising an extratonal scaffolding of consecutive "minor sevenths"	167
2. 'Ideale Landschaft', ms.1-11	168
3. 'Ideale Landschaft', ms.10-20	169
4. 'Ideale Landschaft', ms.17-23	170
4a. 'Ideale Landschaft', ms.23-25	171
5. 'Ideale Landschaft', ms.22-31	172
6. 'Ideale Landschaft', m.30 - 'Am Ufer', m.1	173
7. 'Am Ufer', ms.1-6	174
8. 'Am Ufer', ms.6-11	175
9. 'Am Ufer', ms.10-15	176
10. 'Am Ufer', m.15 - 'Himmelfahrt', m.3.	177
11. 'Himmelfahrt', ms.1-6	178
11a. 'Himmelfahrt', ms.2-4	179
12. 'Himmelfahrt', ms.6-14	180
13. 'Himmelfahrt', ms.14-21	181
14. 'Himmelfahrt', ms.20-27	182
15. 'Himmelfahrt', ms.27-33	183
15a. 'Himmelfahrt', ms.29-30	184
16. 'Himmelfahrt', ms.32-38	185
16a. 'Himmelfahrt', ms.37-38 (from an early version)	186
17. 'Himmelfahrt', m.35 - 'Nächtliche Scheu', m.3	187
18. 'Nächtliche Scheu', ms.1-4	188
19. 'Nächtliche Scheu', ms.3-8	189
20. 'Nächtliche Scheu', ms.8-13	190
21. 'Nächtliche Scheu', ms.12-1	191
22. 'Nächtliche Scheu', ms.15-20	192
23. 'Nächtliche Scheu', ms.20-27	193
24. 'Nächtliche Scheu', ms.24 - 'Helle Nacht', m.4.	194
25. 'Helle Nacht', ms.1-8	195
26. 'Helle Nacht', ms.6-13.	196
27. 'Helle Nacht', ms.12-19	197
28. 'Helle Nacht', ms.19-23	198
29. 'Helle Nacht', ms.23-29	199
30. 'Helle Nacht', ms.27-33	200
31. 'Helle Nacht', ms.34-47	201

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"Since the principles which uphold all are not alike, nor of the same root, it would be impossible that the order of the world should be based upon them if harmony were not brought in by some means. For things that are alike and of the same root have no need of harmony; those that are not alike, nor of the same root, nor of the same station, need to be locked together under key by a harmony capable of maintaining them in the world order."

Philolaus

(from the translation into French by Simone Weil)

Chapter 1: Introduction

During the latter half of the first decade of this century some monumental changes in the realm of European art music were being wrought in the sketchbooks of a small circle of Viennese composers. Schoenberg, Webern and Berg, in pieces they were writing over the course of 1906-8, were stretching the syntax of tonal-harmonic progression to far extremes of chromatic complexity. In one of a series of lectures given in 1933 and since published in English under the title The Path to the New Music, Webern characterized the radical nature of some of these early works. Of a sonata movement of his own, written in the summer of 1906 and inspired by Schoenberg's then recently completed 'Chamber Symphony' (Op. 9), he said, "In that movement I reached the farthest limits of tonality."¹; and with regard to a quartet movement written shortly after that, he explained:

The key, the chosen key note, is invisible--"suspended tonality!" But it was all still related to a key, especially at the end, in order to produce the tonic. The tonic itself was not there--it was suspended in space, invisible, no longer needed. On the contrary, it would already have been disturbing if one had truly taken one's bearings by the tonic.²

With these remarks Webern was acknowledging that the harmonic structure of these pieces stood on the verge of being unintelligible with respect to traditional views of tonal-harmonic syntax. He described the conflict with which Schoenberg the theorist had at that time himself been faced amidst his own prodigious activity as a composer: "It was frightfully difficult for him as a teacher; the purely theoretical side had given

¹Anton Webern, "The Path to Twelve-Note Composition", The Path to the New Music, ed. Willi Reich, trans. Leo Black (Bryn Mawr, Pennsylvania: Theodore Presser, 1963), p. 48.

²Ibid.

out. By pure intuition, amid frightful struggles, his uncanny feeling for form had told him what was wrong."³

Difficulty encountered in attempts since to formulate anything more than a vague understanding of this and later music using the conceptual frameworks of tonal theory have provoked two sorts of attitudes in the minds of theorists. On the one hand, perhaps tonal paradigms such as those based on the theories of Schenker and Schoenberg--paradigms which derive largely from analysis of the work of Bach, Mozart and Beethoven--are still in too crude a state of refinement to be of much use in analysis of music of such harmonic complexity. Perhaps, as tonal theory becomes more sophisticated, an understanding of tonal structure in the music of Webern, Schoenberg and Berg will continue to emerge and deepen just as will our appreciation of the work of earlier composers.

It has been argued, on the other hand, that in the face of such confounding harmonic complexity perhaps this "stick-in-the-mud" faith in the usefulness of traditional ideas of pitch-class hierarchy should be discarded. Perhaps an understanding of patterning in pitch structure of this music is best formulated without reference to such notions as 'root', 'tonic', 'dominant', 'root progression', 'major versus minor gender' and 'chromatic versus diatonic voice leading'. Some who have taken this position have maintained that these composers, having approached the limits of complexity in tonal patterning, made a definitive break with the musical past at some point and began writing 'atonal music'. Allen Forte among others, for example, points to Schoenberg's composition in 1908 of the 'George Lieder' (Op. 15) as marking just such a break: "In this work he deliberately relinquished the traditional system of

³Ibid.

tonality, which had been the basis of musical syntax for the previous two hundred and fifty years."⁴

Forte has shown how, in a pitch structure with little or no apparent tonal order, some coherence may nevertheless derive from the way pitch-material is organized with respect to certain referential pitch-class sets.⁵ Interesting expressive effects can, for instance, derive from patterns of recurrence of certain sets, these effects being extratonal in nature in the sense that they are not necessarily contingent upon any tonal-hierarchical relationships which might exist amongst the pitch-classes involved. In a pitch-structure which, from any sort of tonal perspective, seems devoid of meaning, some degree of intelligibility could certainly be afforded by the presence of such extratonal patterning. The presence of these extratonal relationships in such a piece could then be said to serve as a kind of substitute in the absence of discernable tonal ones.

A significant element of coherence in pitch patterning may, of course, derive from a juxtaposition of an extratonal effect with a tonal one, such that the two are congruent--that is, such that each obtains in one and the same voice-leading design. While each effect is distinguishable from the other, the detail of either may, to some extent, owe its inspiration to the constraint that the coherence of the other should not be violated. In the progression shown in Example 1, for instance, the particular design of the lower two voice-parts, that of the ending in the upper two and the detail of the tonal-expressive effect of the pattern as a whole, all derive much of their raison d'être from their function of accommodating the succession of consecutive vertical "minor sevenths" in the upper two voice-parts such that the four parts

⁴Allen Forte, The Structure of Atonal Music (New Haven: Yale University Press, 1973), p.ix.

⁵See "Part 2: Pitch-Class Set Complexes" in The Structure of Atonal Music.

combine to form an intelligible tonal progression. The insistent extratonal pattern in the upper parts has thus served as a prominently exposed scaffolding which has inspired, in large measure, the form and the overall tonal effect of the progression. In this case, neither the tonal- nor the extratonal-expressive effects of the voice leading are profoundly interesting in themselves. What I have tried to make the major focus of interest in the passage is, rather, the sense of a congruence effected between the two. Such congruence is possible primarily because of the fact that each of a pair of pitch-classes defining an ic2 (interval-class 2) can be made to function in any one of several distinct ways with respect to a root. (See Chapter 2 for a discussion of the format of the analysis in Example 1.)

Webern was working on the five 'Dehmel Songs' during the pivotal years in the transition from the late tonal to the early 'atonal' style of writing. He wrote 'Ideale Landschaft' around Easter of 1906, 'Nächtliche Scheu' in 1907, and the other three in 1908. Reinhard Gerlach has suggested that in some parts of the 'Dehmel Songs' the constraints of tonality may, indeed, have been forsaken for the purpose of achieving certain extratonal effects.⁶ I have found this not to be the case, but it is nevertheless clear that the pitch-material of all five songs has been shaped with a view to creating patterns involving the recurrence of certain motivic sets. The main premise underlying the analysis which follows is that a very significant determinant of formal detail in the 'Dehmel Songs' has been the constraint that the extratonal effect of a pitch-pattern should be congruent with an intelligible tonal one.

In my analysis I consider the nature of the congruence, in these pieces, between tonal and extratonal effects deriving from patterns of recurrence, not of ic2 as in

⁶See Reinhard Gerlach, "Die Dehmel-Lieder von Anton Webern. Musik und Sprache im Übergang zur Atonalität", Jahrbuch des Staatl. Instituts für Musikforschung - Preußischer Kulturbesitz - 1970 (1971).

Example 1, but of ic4 and, in particular, of a combination, as formed in the 'augmented triad', of three such interval-classes. That term, 'augmented triad', applies traditionally to a set of three pitch-classes which, as components of a single harmony, function as a root, a major third, and an augmented fifth respectively. The term as I use it, however, applies to any instance of pc-set-class 3-12--[0,4,8]--formed by component pitch-classes of a harmony, regardless of the respective harmonic functions of those components with respect to a root. Thus, an augmented triad is also formed, for instance, by combining a minor third, a fifth and a major seventh in a single harmony, e.g., a C chord with the components Eb, G and B.

In the first part of Chapter 2 I develop some criteria with which to begin to distinguish amongst various conceivable tonal functions of an individual pitch-class, of an ic4 and, finally, of an augmented triad. From one mode of categorization derives a long series of conceivable triad-types. Another mode subdivides that series into four distinct groups of types. A third mode subdivides the series differently and facilitates the isolating of one particular kind of type--the one kind used in the 'Dehmel Songs'--such that we are left with four groups each comprised of several triad-types of that one kind. I then distinguish two other modes of categorization. By virtue of one, particular transpositions of various triad-types from the various groups are identified as functional equivalents of one another; and, by virtue of the other, particular transpositions of various triad-types or of a single type are identified as being capable of functioning as substitutes for one another. Chapter 2 concludes with a discussion of the format of my graphic analysis of the pitch-structure of the songs.

The subsequent four chapters are devoted, each in turn, to a consideration of instances, in the songs, of triad-types from each of the four groups. The only types discussed in these chapters, therefore, are those (thirteen types in all) for which I have found corresponding examples in the songs.

In considering a triad-type, I begin with some simple chorale-style voice-leading examples to establish what sorts of voice-leading contexts would tend to substantiate the understanding of the particular character of the triad-type as such. Having defined a particular triad-type in this way, I then treat one or more instances of that type as they occur in the songs, each with reference to one of the series of graphic analyses of excerpts from the songs at the end of the paper (Examples 2-31). I generally begin discussion of an instance by considering how the voice-leading context in which that triad is placed tends to substantiate the distinct type-identity of the triad as defined initially with reference to my abstract chorale-style examples. Then, using this type-characterization as a ground, I examine more thoroughly the nature of the voice-leading functions of each of the pitch-classes of the triad with respect to other pitch-classes in the pitch structure including, of course, those which are components of other augmented triads. In this way I start to build a picture both of the tonal design of the context surrounding the triad and of the way in which that triad fits functionally into that context. In most cases it is only through a process of turning to a particular passage two or three times, to consider instances of first one triad-type and then another, that a complete picture of the tonal design of the passage really begins to emerge and crystallize. Each analysis of an instance of a particular triad-type establishes one sort of function that a triad of that type might have, thereby investing that type-model with one of perhaps a range of possible sorts of meanings. This of course proves helpful in subsequent attempts to characterize the tonal design of pitch-patterns in which other instances of that triad-type occur.

Through the course of Chapters 3-6, I gradually accumulate both a vocabulary of functional types and a collection of analyses of pieces of the songs. As that vocabulary grows I can eventually discuss functional relationships between instances of particular transpositions of various triad-types, thereby making it possible to establish precisely

how a pattern formed by a succession of augmented triads functions tonally in a particular pitch-structure. As smaller pieces of analysis are fitted together to form larger ones, conceptions of the structures of sections of each piece, whole pieces, and of structural relations between pieces begin to emerge.

Although I do not necessarily discuss in detail the tonal functions of every single augmented triad occurring in a chosen excerpt, each triad is nevertheless treated in the accompanying graphic analysis. Because of the way in which the occurrence of each triad is represented in the graphs, the nature of the extratonal effect of each pattern formed by a succession of triads in a passage is largely self-evident and hence does not call, at least initially, for much additional analysis in the form of discussion. An issue which I leave to address in the last chapter involves the question as to the degree to which a specific such effect is pronounced relative to the overall expressive effect of the voice-leading pattern from which it derives. Certainly not every such pattern cited has an extratonal effect so prominently exposed as that featured in Example 1. In Chapters 3-6 such questions will be left to the reader to bear in mind.

I begin Chapter 7 with a discussion of a passage which comprises a major pivotal juncture in the overall structure of the cycle and which is probably the most tonally confounding of any in these songs. In the last ten measures of 'Himmelfahrt'--ms.38-47 (Example 17)--the approach to the final cadence in Eb (ms.41-42) is overlaid with an approach to a foiled one in D. Congruent with this very complicated tonal effect is a very pronounced extratonal, and indeed serial, one, deriving from a succession of augmented triads which stretches through the first nine measures of the passage. The effect of the succession spanning ms.39-41, in particular, is exposed in much the same way--and, indeed, as conspicuously--as is that of the succession of "7th's" in Example 1. Over the course of Chapters 3-6 I piece together analyses of some larger sections of each song and of connections between songs, and, thus, in Chapter 7 I am able to

consider, with reference to these analyses, some of the more broadly reaching implications, both tonal ones and serial ones, of the pitch-patterning in this excerpt. In the process I delineate in some detail a way of hearing a coherent background design in the pitch-structure of the song cycle as a whole, one which comprises a tenuous but intelligible sense of closure in the last piece. Over the course of the last chapter I am able to offer some speculations as to how one might try to hear the syntax of the harmonic structure of this song cycle as being oriented toward one referential tonic key; and then, in the light of those speculations, I conclude with a consideration of what we might understand Webern to have been saying in those references he made in 1933 to his early experiments with "the farthest limits of tonality" and "suspended tonality."

Webern never had the 'Dehmel Songs' published and it can therefore not be certain that he considered each to be completely finished. Since Webern's death an edition of the songs, prepared by Leonard Stein, has been published.⁷ Reinhard Gerlach has prepared a critical edition of the songs which remains unpublished⁸, but one of the outcomes of that research was an article published in 1972 which documents the discrepancy between the detail of the Stein edition and that of the autograph versions of the songs.⁹ Using the published edition together with Gerlach's observations, I have come up with what I am confident is a fairly authentic version of the songs--although, as I only once raise a question involving the relationship between the music and

⁷Anton Webern, Five Songs after Poems by Richard Dehmel for Voice and Piano, ed. Leonard Stein (New York: Carl Fischer, 1962).

⁸Anton von Webern, "Fünf Dehmel-lieder 1906-1908. Nach den Handschriften des Komponisten neu hersg. und mit einem kritischen Bericht begleitet von Reinhard Gerlach, I-II", Habil. Schrift Göttingen, 1972.

⁹Reinhard Gerlach, "Die Handschriften der Dehmel-Lieder von Anton Webern." Textkritische Studien in Archiv für Musikwissenschaft 29 (1972): 93-114.

Dehmel's poetry, I have, in my rendering of the songs, omitted (and not without some regret) the text of the voice-part. In his article on the autographs Gerlach also notes differences between versions of the songs for which Webern has left more than one. I have made use of some of these observations as well.

An issue which proves crucial in my analysis involves a controversy arising from the uncertainty as to Webern's intended sequence for the songs in the set. Gerlach, in his earliest article on these songs¹⁰, does not challenge Stein's decision that 'Nächtliche Scheu', although composed second (see above), should be placed fourth in the cycle--i.e., between 'Himmelfahrt' and 'Helle Nacht'. However, in a chapter devoted to these pieces in his book on the early years of the Viennese School¹¹, Gerlach seems to have reconsidered his earlier position and instead places 'Nächtliche Scheu' immediately after 'Ideale Landschaft'. Gerlach is especially interested in the structural implications of Dehmel's texts in these songs, the crux of his argument being that such an ordering brings forth a significant poetic effect.

With my own still very crude knowledge of the German language, I am not as yet prepared to offer a substantial challenge to claims as to Webern's use of text in these songs. However, purely on the basis of considerations of musical structure, I feel strongly that Stein's ordering of the pieces is correct. My case for this ordering is, I think, well made, especially in the last chapter, in that the sense of the detailed conception offered there of a background tonal gesture spanning all five songs is contingent upon such an ordering. But, for now, I offer some simple observations which will hopefully serve as sufficient hints as to the importance of using Stein's ordering.

¹⁰Gerlach, "Die Dehmel-Lieder." This article was apparently written before the author had studied the autograph manuscripts.

¹¹Reinhard Gerlach, Musik und Jugendstil der Wiener Schule. 1900-1908. (Laaber: Laaber-Verlag, 1985)

With 'Nächtliche Scheu' placed fourth, the climactic culmination of intensity approaching the recapitulation in 'Himmelfahrt' (ms.29-31) stands roughly at the centre of the cycle. The one other comparable departure from the atmosphere of extreme dynamic restraint prevailing throughout the cycle occurs towards the middle of 'Ideale Landschaft', in the immediate approach to the recapitulation in (ms.20-22). A significant parallel is then formed between the design of the first piece and that of the cycle as a whole. The placing of 'Nächtliche Scheu' second would upset the formal symmetry of the set and would obscure this effect of mirroring. It would also obviate some vital structural connections between the songs. For example, the final E b6 harmony--[E-G#-B-C] of 'Ideale Landschaft' functions as a dominant (V/A minor) preparing the opening of the 'Am Ufer' in A minor. (With Figure 24 I suggest that the implications of these structural connections indeed reach quite deeply into the background designs of both pieces.) There are, admittedly, significant structural parallels between 'Nächtliche Scheu' and the first song, e.g. the opening section of each is most essentially V-I in A major: ms.1-8 (Example 18-19) and ms.1-7 (Examples 2), respectively. But when 'Nächtliche Scheu' is placed fourth such that its opening section is stood in the shadow of the vast structural dimensions of 'Himmelfahrt', those parallels in fact give to these measures the effect of the beginning of a large scale recapitulation. As well, the thwarted approach, mentioned above, to a cadence in D towards the end of 'Himmelfahrt' is then ultimately consummated at the end of 'Nächtliche Scheu'. The closing harmonies of the last three pieces therefore combine to form the root succession Eb-D-C#(Db), one which mirrors in the large a root progression which is motivic in the surface structures of both 'Himmelfahrt'--ms.1-4 (Example 11) and ms.36-38 (Example 16)--and 'Helle Nacht'--ms.8-10, ms.19-21 and ms.30-32 (Examples 26, 28 and 30). Prefixing this background root succession is the root shift E-D#(Eb) connecting 'Ideale Landschaft' and 'Himmelfahrt' (one mediated by the progression

through 'Am Ufer'), so that the song cycle as a whole comprises a background skeletal root succession descending in half-steps from E to C#, i.e., E-D#(Eb)-D-C#. In light of the formal elegance contingent upon these and other related effects, there would seem to be little doubt as to where Webern intended 'Nächtliche Scheu' to be placed in the cycle. The correct order of the songs is then as follows:

Ideale Landschaft

Am Ufer

Himmelfahrt

Nächtliche Scheu

Helle Nacht

Chapter 2: Theoretical Considerations

Preliminary remarks: toward an epistemology of root-consciousness

I have approached the harmonic structure of the ‘Dehmel Songs’ with the premise that it is a tonal-harmonic structure, by which I mean that I have regarded every pitch in the structure as having a tonal meaning within a root progression and, by implication, as having a specific hierarchic function with respect, most immediately, to the referential root of the harmony of which it is a part at a particular moment. The perceiving of a prevailing root at some moment in a harmonic progression is an intuitive response which is conditioned by psychoacoustic constraints on the way we hear hierarchic relations among pitches in a single harmony and in a progression of harmonies. While it certainly may take some practice to hear roots and root progressions at some points in the ‘Dehmel Songs’, this practice involves listening to how the internal interval structure of each harmony together with the voice-leading context in which the harmonies occur constrain one to hear one root progression as opposed to another. That is, such practice is ultimately a matter, not of arbitrarily choosing to hear a referential root at a particular moment in a progression so as to make the interpretation of the harmony in question fit some rigorous formal theory of the nature of harmonic progression, but, rather, of learning to discern the tonal hierarchy inherent in a pitch-structure (which may, of course, involve a process of trying to hear a difficult harmony in two or three different ways before deciding what the true root is). These psychoacoustic (natural) constraints governing the way we intuit tonal hierarchy in tonal-harmonic progression are in large part grounded, I think, in perceptual givens; for example, where an interval is one of those found toward the bottom of a harmonic series, between the fundamental and one of the lower partials, in which case the fundamental’s pitch-class will be perceived as the interval’s

root; or where an interval formed between the upper members of two intervals with some root acquires that root, e.g. the minor 3rd formed by E and G, respectively the upper members of the C-root intervals C-E and C-G. I would go along with Hindemith, then, up to a certain point, in his saying that many intervals have an inherent referential root, some intervals being more strongly rooted than others, such that the presence of a strongly rooted one in a harmony, especially if it is placed in the lower register of that harmony, may condition in an especially significant way our perceiving of a root as such.¹²

Of the intervals formed among the first seven harmonics of the overtone series--e.g., C-G-C-E-G-Bb(A#)--, I hear the 5th (C-G), the major 3rd (C-E), (and their inversions, the 4th and the minor 6th), and the minor 7th (C-Bb) as having as an inherent root: the pitch-class to which the fundamental of the series from which they derive belongs (C). The tritone (formed by the 5th and 7th harmonics (E-Bb(A#)) or the 7th and 12th (Bb(A#)-E)), I hear as implying either of two fundamentals a tritone apart (C or F#); since the tritone is derived from the composition of a major 3rd and a minor 7th (or augmented 6th) on the same root, it acquires a root implication by proxy, as it were.

I can also hear the lower pitch of a minor 3rd as the root of that interval. Although the basis of this intuition is unclear, perhaps it is that the minor 3rd is close enough in size to a major third that its effect imitates that of the latter, in the sense that it sounds like an out-of-tune version of the latter. Of course, the minor 3rd, like the tritone, may be perceived as a derivative of a perfect 5th and a major 3rd on some root, but this perception would require more contextual support to distinguish, for example, between [C]-E-G and [A]-C#-E-G.

¹²See Paul Hindemith, The Craft of Musical Composition, trans. Arthur Mendel (New York: Schott, 1942).

I do not hear major or minor seconds as having inherent roots, or, rather, I find it equally easy to hear as a root one or the other of the tones forming a second. In the case of the major second, this is perhaps because in the first two major seconds comprised by the harmonic series, those between the 7th and 8th harmonics (Bb-C) and between the 8th and 9th harmonics (C-D), a transposition of the fundamental is the upper component of one and the lower of the other. However, I do tend to hear as roots the lower pitches of the major seventh and of minor and major ninths. In the case of the major ninth, my intuition may be related to the fact that this is the interval formed between the 4th and 9th harmonics of a series (C-...D). And, in the case of major sevenths and minor ninths, perhaps I hear the upper tones as out-of-tune versions of either the 8th harmonic or of the 7th and 9th harmonics, respectively.

With the vagueness of all of this "more strongly rooted than" and "either" and "perhaps" and "out-of-tune version", even at this elementary level of listening to simple intervals without the complicating factors of the presence of other pitches and intervals and of contrapuntal functions of pitches, it would seem obvious that attempts, such as those of Hindemith, to formulate a rigorous system with which to determine what the root is at some point in an dense harmonic progression are probably futile. But the fact that my intuitive responses to these simple intervals corresponds in certain ways to the nature of the laws of acoustics governing the hierarchical structure of the harmonic series leads me to believe that these musical intuitions are physiological responses which are grounded in, and, in theory at least, explainable in large part with reference to, these laws. My musical perceptions in these matters may be culturally conditioned or biased, but only in the sense that my musical education--having been focussed as it has on the study of a music in which the idea of root progression has been pursued to far extremes of complexity--has sharpened my physiological sensitivity to tonal hierarchy in a progression. My practice of intuiting

root progressions in music has led me to tend, then, towards the belief that there is only one truest way of hearing a root progression, although I would qualify that, of course, by saying that one faulty or imprecise interpretation will tend to be more or less true than another. While I do let my intuition take the lead when discerning roots in a progression, I do nevertheless find that informal observations of the sort I've made above as to root-inhering intervals can form the basis of a likewise informal collection of principles or rules of thumb which may be useful in helping to nudge my intuition towards a grasping of what the root of a particular harmony is. I am not especially interested in any very rigorous formalization of analytical principles in this regard, as I suspect that a striving to derive such a system, like that of Hindemith's for example, would inevitably lead to error: I would probably be surrendering my practice of being led by intuition, surrendering, that is, to a cumbersome, overly rational and inevitably misleading theory of how and why a harmony has a root.

As a teacher I have found that even very inexperienced musicians, those who may not yet have the foggiest rational notion of what a root is but who have adequate musical ears, are obviously led in their making of music by an intuitive response to roots and root progression in a harmonic succession. And of course many of the most accomplished musicians I've encountered are obviously not led in their work by any deep rational understanding of why they hear a root as such. Experienced musicians with whom I've discussed one or another especially difficult passage in the 'Dehmel Songs' usually reach the much the same conclusions as I as to what would seem to be the governing root progression in those passages, (although, admittedly, not without the help, in some cases, of my informal "nudges").

My point, then, is that one's largely intuitive response to tonal hierarchy in a progression, at least as regards the discerning of roots, seems generally to concur with responses of others, even where they are led by intuitions more naive than the

professional's. This observation leads me to prefer to rely primarily on my own naivest responses in this regard and to call forth my relatively primitive rules of thumb, to use as hints, only when I encounter difficulty. Through the course of this study I will be referring, both explicitly and implicitly, to the informal principles mentioned above, and to related ones, when they appear to corroborate my intuitions. I resist the temptation to place any great confidence in these rules of thumb lest they interfere with, rather than corroborate, my intuitive impressions. I offer them, then, as informal nudges to the musical intuitions of the reader, but with the suggestion that they may correspond in a primitive way to the grounds of some future cognitive theory of how we come to hear roots in other than simple harmonies.

Criterion for characterizing tonal-harmonic functions of a pitch-class, a harmonic interval and an augmented triad

As already indicated, my premise that the harmonic structure of the 'Dehmel Songs' is a tonal-harmonic one involves the notion that every pitch in the structure has a specific hierarchic function with respect to the referential root of the harmony of which it is a part at a particular moment. By this I mean, first, that a pitch will be understood to stand x-number of semitones above the referential root, 'x' being some number from 0 to 11; and, secondly, that a pitch will be understood to stand y-number of diatonic steps above the referential root, 'y' being some number from 0 to 6, that is, it will be understood to function as some version of one of seven scale-degrees with respect to the referential root. The notion that every pitch has a scale-degree function with respect to a root involves the premise that there is a real cognitive difference between the way we perceive a chromatic step and the way we perceive a diatonic step--e.g., the difference between what we perceive as a chromatic step Bb-B above a C root (a 7th to a #7th) and what we perceive as a diatonic step

A#-B above a C root a (#6th to a 7th). The best way I can think of to illustrate the nature of this cognitive distinction is to use an analogy of the way we seem to distinguish colors in a particular context as shades of one or another of the series of colours in the spectrum. Let us assign each of the seven-scale degrees above a root one of the seven colours of the spectrum--i.e., red, orange, yellow, green, blue, indigo, violet. A pitch-class standing five diatonic steps above the root (some version of scale-degree 6) corresponds to some shade of indigo (the sixth colour in the spectrum), while a pitch-class standing six diatonic steps above the root (some version of scale-degree 7) corresponds to some shade of violet (the seventh colour in the spectrum). A pitch-class standing 10 semitones above a root will typically function as either a minor seventh or an augmented sixth. The perception of the pitch-class as an augmented sixth as opposed to a minor seventh would correspond to the perception, in a particular context, of a bright shade of indigo as opposed to a dark shade of violet (or, alternatively, of a purplish indigo as opposed to an indigo-like purple). The perceiving of a diatonic step from an augmented sixth to a major seventh (#6-#7), as opposed to a chromatic step from a minor to a major seventh (7-#7), would correspond to a change in colour from a shade of indigo to a shade of violet, as opposed to a change from a dark shade of violet to a brighter shade of violet.

I would characterize the distinction of diatonic versus chromatic steps in a particular context, then, as analogous in some sense to the distinction, in a particular context, of a change of colour versus a change from one shade of a colour to another of that same colour. However imprecise this theory of colour distinctions might be, it is sufficient for use as a metaphor. The reader may find it useful to call to mind this metaphor to help render more tangible some of the abstract distinctions I make in the

discussions that follow with regard to pitch-class functions. (My analogy was inspired largely by some of Ludwig Wittgenstein's observations in his Remarks on Colour.¹³)

In terms of the functions of their component pitch-classes with respect to a root and with respect to a referential local tonic, most pitch-class sets of smaller dimensions (2 to 6 elements) can be comprised by a number of distinct tonal harmonies. As a way of classifying the resultant range of possible relationships between harmonies and comprised sets, I will initially consider those which derive partially from the fact that a given pitch-class can be part of a harmony whose root may be any one of the twelve pitch-classes.

I begin then with what I stated above, that a pitch can stand x semitones above a root-- x being any number from 0 to 11. Furthermore, for any such interval measured in semitones, there are two or three distinct ways of measuring that interval diatonically, as some kind of octave, seventh, sixth, etc.; hence two or three ways of understanding it as a scale-degree pair and as part of a harmonic entity within a tonal system.

Most of the conceivable ways that a component pitch-class-instant of such an interval can function in this regard with respect to a root are listed in Table 1 (pp.20-21). Note that I designate the first and second scale-degrees as '8' and '9' respectively. I use '9' because traditionally we speak of a dominant ninth chord (V9). The use of '9' reflects the fact that such a pitch-class-instant typically stands a third above some sort of 7th. But such a pitch-class-instant is also understood, in the case of 9 and b9, as an upper neighbour to the referential root. It is partly for this reason that I designate the first scale-degree as some version of '8'. I use '8' also because where the

¹³Ludwig Wittgenstein, Remarks on Colour, ed. G.E.M. Anscombe, trans. Linda L. McAlister and Margarete Schättle (Berkeley: University of California Press, 1978.) It should be noted that Webern and Beethoven as well as Wittgenstein all studied Goethe's Theory of Colours and each regarded it as an important work.

designation 'bb8', 'b8', '#8' or 'x8' applies, the pitch(es) in question will typically sound an octave (or a compound octave) above a pitch functioning as a root. Thus I designate the scale-degree function of a pitch-class with 'y', y being any number from 3 to 9. For the more obscure versions of scale-degree functions listed in Table 1--e.g. 'b4' and 'x6' (diminished fourth and doubly-augmented sixth)--I refer to an example(s) of one (or two) of perhaps several sorts of voice-leading contexts in which such a version could be understood to occur; each of those contexts is then illustrated in a voice-leading example in Figure 1 (p.22). My Roman-numeral designations of the function of a harmony with respect to a referential tonic corresponds roughly to my Arabic-numeral designations of the scale-degree function of a pitch-class with respect to a root, although, whereas I use the Arabic designations '8' and '9', I use the Roman designations 'I' (or 'i') and 'II' (e.g. 'bII', '#II'). An upper-case Roman numeral designates a harmony whose gender is major while a lower case designates one whose gender is minor.

From this series of possible harmonic functions for a single pitch-class derives a series of possible functions for an interval-class formed by two pitch-class components of a tonal harmony. Thinking strictly in terms of the respective distances in semitones its component pitch-classes stand above a root, the interval-class could have any of twelve different contrapuntal functions. However, the fact that at least one of the pitch-classes could function as any of two or three different scale-degrees with respect to a given root means that with each of these twelve possibilities any of a series of combinations of scale-degree functions is possible. One important variable involved in this series is that of the size of the given interval-class as measured in diatonic steps. The nature of this variability is illustrated well by the familiar case of an interval class formed by two pitch-classes, one standing 7 semitones--e.g. a 5th--and the other standing 10 semitones, above a root. Depending on whether the latter pitch-

Table 1

Conceivable harmonic functions for a pitch-class with respect to a root

No. of s.t.'s above the root	Possible scale-degree functions with respect to the root
11	b8 - diminished octave--e.g. in VII/V, prepared as 7 in V; or in # ^{II} /V, prepared as 9 in V--Fig. 1a or #7 - major seventh or x6 - doubly augmented sixth (Note: <u>not</u> an augmented sixth--see '#6' below)--e.g. in bVI/V, approached from #5 in V (counterpart of x3 in bII/V--see x3 below)--Fig. 1b
10	bb8 - doubly diminished octave--e.g. in # ^{II} --Fig. 1c or 7 - minor seventh (Note: 'b7' does not designate this scale-degree function. See b7 below.) or #6 - augmented sixth
9	b7 - diminished seventh--e.g. in V/i or in VII--Fig. 1d or 6 - major sixth or x5 - doubly augmented fifth--e.g. in bII, prepared as #5 in V/V; or in bII/bVI, prepared as #6 in bVI--Fig. 1e
8	b6 - minor or "lowered" sixth or #5 - augmented or "raised" fifth
7	bb6("5") - diminished sixth--e.g. in VII/V, prepared as b5 in V--Fig. 1f 5 - perfect or "unaltered" fifth x4("5") - doubly augmented fourth--e.g. in bVI, prepared as #5 in V--Fig. 1g
6	b5 - diminished or "lowered" fifth or #4 - augmented or "raised" fourth or x3 - doubly augmented third--e.g. in bVI, approached from #5 in V; or in bII/bVI/V/i (bVI/bVI/i), approached from #5 in bVI/V/i--Fig. 1h
5	bb5 - doubly diminished fifth--e.g. in # ^{II} /V/i--Fig. 1i or 4 - perfect or "unaltered" fourth or #3 - augmented third--e.g. in bII, prepared as #6 in bVI--Fig. 1j
4	b4("3") - diminished fourth--e.g. in "VII"/i, prepared as b3 in i; or in # ^{II} , prepared as 5 in I--Fig. 1k or 3 - major third

Table 1 (continued)

3	b3	-	minor third
	or #9	-	augmented ninth
2	bb3	-	diminished third--e.g. in "VII"/i or #II"--Fig. 1l
	or 9	-	major ninth
	or x8	-	doubly augmented octave--e.g. in bII--Fig. 1m
1	b9	-	minor ninth
	or #8	-	augmented octave--e.g. in IV, prepared as #4 in V/IV--Fig. 1n
	or #x7	-	doubly augmented seventh--e.g. in bII/bVI, prepared as x8 in bVI--Fig. 1o
0(12)	8	-	root

*A pitch-class which takes the function of bb6, x4 or b4 as opposed to that of 5 or 3, does so by virtue of the peculiar voice-leading context in which it is involved. Nevertheless, the size in semitones of the interval between such a pitch-class and the root may contribute significantly towards substantiating the function the root as such. In such cases, then, the "dissonant" pitch-class also has a momentary function as a fifth or a third. Thus '#II' and 'VII' designate chords which sound major; the sound of the "major third" between their roots and their b4th's helps concretize the functions of their roots as such. In the absence of a 3rd, the presence of a #9th in a harmony can, I think, have a similar effect, i.e., as "b3."

class functions as a #6th or as a 7th with respect to the root, the ic3 between it and the 5th could function as either an augmented second (or a diminished seventh) or a minor third (or a major sixth).

In the light of these observations I turn now to consider, in particular, the kinds of ways in which an ic4--the interval-class with which the augmented triad is built--could function as a component of a tonal harmony. If we assume that either of the two component pitch-classes of an ic4 could function in any one of the ways listed in Table 1, there are then eighty-three distinct pairs of functions which would define anic4. This means that, depending on the context in which it is placed, a given ic4 could function in any one of perhaps as many as eighty-three distinct ways.¹⁴ While

¹⁴For instance, given an ic4 formed by pitch-classes standing 3 and 11 semitones, respectively, above a root, the former pitch-class could be a b3rd or a #9th, while the latter could be a b8ve, a #7th or a x6th. Thus, such an ic4 could, depending on the

Figure 1. Examples of sorts of contexts which would tend to concretize the perception as such of some of the more unusual scale-degree functions distinguished in Table 1.

a) b) c) d)

C: I-V⁷-VII^{b7}/V-V⁷-I C: I-V⁷-#II^{b9}/IV-V⁷-I C: I-V⁷-VII^{b7}/IV-V⁷-I C: I-#II^{b9}-I C: bVI-V^{b7}-i

e) f)

C: V-V⁷/V-bVII^{b9}-bVII^{b9}-I C: V⁷-bVII^{b9}-bVII^{b9}/bVI-bVII^{b9}-V⁷-i C: V⁷-V⁷-VII^{b7}/V-V⁷-I

g) h)

C: V⁷-V⁷-bVII^{b9}-V⁷-I C: V⁷-V⁷-bVII^{b9}-V⁷-I E: V⁷/V-bVII^{b9}-bVII^{b9}/V-bVII^{b9}-V⁷-I

i) j) k)

C: i-V⁷-#II^{b9}/V-V⁷-i C: i-V-bVII^{b9}-bVII^{b9}-i C: i-V⁷-i I-V⁷-I

l) m) n)

C: i-V⁷-i C: I-#II^{b9}-I C: I-bVII^{b9}-I C: V⁷-V⁷/V-V⁷-V⁷-I

o)

C: V-V⁷-bVII^{b9}-bVII^{b9}-V⁷-I

the realizing of some of the more obscure of those ways will entail the discovering of some very extraordinary voice-leading contexts, I am as yet unconvinced that there are any of the eighty-three for which a realization is inconceivable.

Table 2 (p.24) shows that, in terms of the number of diatonic steps embraced, the ic4's conceivable are of six sorts, each of which could be formed in either of two ways. That is, an ic4 could function as any of a unison, a second, two sorts of thirds, or two sorts of fourths or as any of their respective complements--an octave, a seventh, two sorts of sixths and two sorts of fifths.

Considering, then, that ic4 may perhaps function in any one of eighty-three ways, and that for each way there are twelve distinct transpositions, we have using our criteria, distinguished close to a thousand conceivable ic4's (12×83). Given that an augmented triad comprises three ic4's, each of which could function in any of several ways, there are, then, numerous ways in which different ic4's could combine to form an augmented triad. We begin with the obvious fact that there are four chromatic set-classes of the form (0,4,8); i.e., (0,4,8) itself, (1,5,7), (2,6,10) and (3,7,11). If we now take 0 to be scale-degree 8--i.e., a harmonic root--, we can classify the possible augmented triads as follows: Each member of an augmented triad in relation to 0 can have one of 2 or 3 diatonic names (Table 1). For each of the four chromatic set-classes we may list the names that its elements can have. Each list is called a Group. Group 1 corresponds to (0,4,8) and is a list of 4 names: [8-b4-b6], [8-3-b6], [8-3-#5] and [8-b4-#5]; Group 2, corresponding to (3,7,11), has 18 names: [bb6-b8-b3], [5-b8-b3], [5-#7-b3], etc.; and Groups 3 and 4, corresponding to (2,6,10) and (1,5,9) respectively, each have 27 names. To derive the distinct augmented triads in relation to harmonic root 0, it is necessary to consider the diatonic intervals between members of a triad. Table 2 lists 12 such intervals within the realm of plausibility. It is readily seen that, to form a complete augmented triad, intervals are only compatible when they sum to an

Table 2

Conceivable ic4 types (in terms of the number of diatonic steps embraced)

Interval Type	Examples
quadruply augmented unison	bb8-x8 (e.g. Gbb-Gx with a G root)
doubly augmented second	b8-#9, b7-#8, bb3-#4 (e.g. Eb-Fx with roots E, F# and C# respectively)
major third.	b6-8, 3-#5, #7-#9 (e.g. F-A with roots A, Db and Gb respectively)
quadruply augmented third.	bb8-x3 (e.g. Dbb-Fx with a D root)
diminished fourth.	#5-8, #4-7, 6-b9 (e.g. B-Eb with roots Eb, F, and D respectively)
triply augmented fourth	b5-x8 (e.g. Gb-Cx with a C root)

triply diminished fifth.	x8-b5 (i.e., a complement of triply augmented fourth)
augmented fifth.	8-#5, 7-#4, b9-6 (i.e., complements of the diminished fourths)
quadruply diminished sixth.	x3-bb8 (i.e., a complement of the quadruply augmented third)
minor sixth.	8-b6, #5-3, #9-#7 (i.e., complements of the major thirds)
doubly diminished seventh	#9-b8, #8-b7, #4-bb3 (i.e., complements of the doubly augmented seconds)
quadruply diminished octave	x8-bb8 (i.e., a complement of quadruply augmented unison)

octave. For example, an augmented triad may consist of two (major) 3rds and a (diminished) 4th, or of two (doubly augmented) 2nds and a (quadruply diminished) 6th, but not of three (major) 3rds, or of one (major) 3rd, one (diminished) 4th and one

(doubly augmented) 2nd. There are six possibilities, then, which may be termed Kinds and are as follows:

Kind U - 2 major 3rds and a doubly augmented 4th

Kind V - a doubly augmented 2nd and two diminished 4ths

Kind W - a doubly augmented 2nd, a major 3rd and a diminished 4th

Kind X - a quadruply augmented unison, a diminished 4th and a triply augmented 4th

Kind Y - a quadruply augmented unison, a major 3rd and a quadruply augmented 3rd

Kind Z - two doubly augmented 2nds and a quadruply augmented 3rd

Each augmented triad, considered diatonically in relation to 8 as root, will be one of six kinds and will fall within one of four Groups. Such a triad is called a triad-type and Figure 2 (p.26) lists all the plausible types of which there are 76. Note that, in Figure 2, the various conceivable names for pitch-class components of the augmented triad have, for each of the four groups, been arranged into a cycle of major thirds. With the possibilities of pitch-class functions arranged this way the more obscure ones stand toward either end of each cycle. A triad-type is designated in Figure 2 by any contiguous pair of arcs--each of which connects two pitch-class functions in a cycle of thirds--such that the pair forms an 'S' or a 'mirrored S' pattern. Each arc thus designates a component ic4 of a triad-type (or triad-types) as does also, obviously, each imaginary one connecting the two ends of each 'S' pattern. It should be noted that the more pitch-class functions there are involved in a group, the more triad-types there are in that group, and also, the more kinds there are associated with that group. The order of kinds in each group is arranged such that as one moves from Kind U towards Kind Z at least two of the component intervals of the triad-types span progressively farther across the cycle of thirds and hence reach ever more consistently to the more obscure types of pitch-class functions. The more obscure of

Figure 2. Derivation of plausible augmented-triad-types from lists of plausible scale degree functions for a pitch-class arranged into four cycles of major thirds, each cycle corresponding to one of four groups of types; derivations are further subdivided in each group according to type-kind. A type is designated by any contiguous pair of arcs forming an 'S' or 'mirrored S'.

Type Kind: u

v

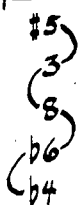
w

x

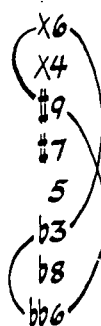
y

z

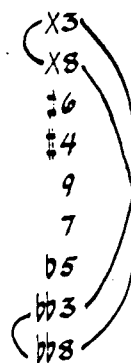
Group I



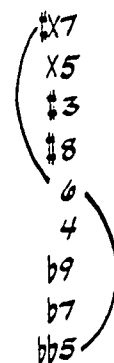
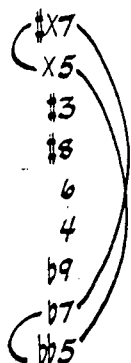
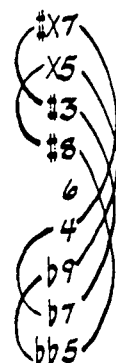
Group II



Group III



Group IV



the conceivable triad-types in each group, then, are those which involve pitch-class functions reaching toward both outer edges of a cycle of thirds. Thus specific types and indeed the kinds as such become progressively more obscure as one moves from U-types toward Z-types in all four groups.

Triad-types derived graphically in Figure 2 are listed and classified in Table 3 (pp.28-29) according to group and, within each group, according to kind. In each group the more obscure types of each kind stand toward the left and right of the series representing a kind and, more generally, in Kinds X, Y, and Z. While it is indeed quite difficult to create voice-leading patterns which would bring forth some of the more obscure triad-types, I have as yet been unable to dismiss any as being unrealizable.

Assuming that realization of each of the 76 triad-types derived is in fact possible and given that each type could be a component of a harmony which may have any one of twelve pitch-classes as a root, we have thus far distinguished, as with the derivation above of ic4 types, close to a thousand conceivable augmented triads (76×12). Conceivable triads might well number over a thousand if in characterizing each we also include the consideration that a particular transposition of a particular triad-type may be capable of functioning in more than one way with respect to a local referential tonic. Take, for example, two contexts each of which embodies a harmony whose root stands a tritone above a given referential tonic--e.g. a C tonic--and which has as a component an augmented triad of a given type; it could be the case that the root of the harmony in question in one context stands an augmented fourth above the referential tonic--e.g. an F# root with respect to a C tonic (perhaps VII/V in C)--, while that in the other context stands a diminished fifth above that same tonic--e.g. a Gb root (perhaps bII/IV in C).

Table 3

 Conceivable Triad Types

Group I

U

8	3	#5
b6	8	3
b4	b6	8

two M3rds and
a D4th

V

#5
8
b4

a dA2nd and
two D4ths

Group II

U

b3	5	#7	#9	#4	#6
b8	b3	5	#7	#9	#4
bb6	b8	b3	5	#7	#9

two M3rds and a D4ths

V

#7	#9	x4	x6
b3	5	#7	#9
bb6	b8	b3	5

a D2nd and two D4ths

W

#9	#9	x4	x4	x6	x6
b8	#7	b3	#9	5	x4
bb6	bb6	b8	b8	b3	b3

a dA2nd, a M3rd and a D4th

X

x6	x6
b3	#9
bb6	bb6

a qAUsn, a D4th
and a tA4th

Table 3 (continued)

Group III

U							V					Z
b5	7	9	#4	#6	x8	x3	9	#4	#6	x8	x3	x3
bb3	b5	7	9	#4	#6	x8	b5	7	9	#4	#6	9
bb8	bb3	b5	7	9	#4	#6	bb8	bb3	b5	7	9	bb8
two M3rds and a D4th							a dA2nd and two D4ths					two dA2nds and a qA3rd
W							X				Y	
#4	#4	#6	#6	x8	x8	x3	x8	x8	x3	x3	x3	x3
bb3	9	b5	#4	7	#6	9	b5	#4	7	#6	bb3	x8
bb8	bb8	bb3	bb3	b5	b5	7	bb8	bb8	bb3	bb3	bb8	bb8
a dA2nd, a M3rd and a D4th							a qAUsn, a D4th and a tA4th				a qAUsn, M3rd and a qA3rd	

Group IV

U							V					Z
b9	4	6	#8	#3	x5	#x7	6	#8	#3	x5	#x7	#x7
b7	b9	4	6	#8	#3	x5	b9	4	6	#8	#3	6
bb5	b7	b9	4	6	#8	#3	bb5	b7	b9	4	6	bb5
two M3rds and a D4th							a dA2nd and two D4ths					two dA2nds and a qA3rd
W							X				Y	
#8	#8	#3	#3	x5	x5	#x7	x5	x5	#x7	#x7	#x7	#x7
b7	6	#8	b9	4	#3	6	b9	#8	4	#3	b7	x5
bb5	bb5	b7	b7	b9	b9	4	bb5	bb5	b7	b7	bb5	bb5
a dA2nd, a M3rd and a D4th							a qAUsn, a D4th and a tA4th				a qAUsn, M3rd and a qA3rd	

We have thus far subdivided our series of conceivable triad-types according to group- and kind-membership. In my study of the 'Dehmel Songs' I have encountered instances of triad-types from each of the four groups but it appears to me thus far that Webern only used types of Kind U. I therefore limit further consideration of functional associations between triad-types to those which exist among various transpositions of types of that one kind.

One may posit further associations among triad-functions, of which the simplest is one existing between certain transpositions of a given type. By virtue of the symmetrical interval-class structure of the augmented triad, the pc-set 3-12 embodied by a given transposition of a particular type is shared by two other transpositions--i.e., ic4 up and ic4 down--of that same triad-type. Hence, for instance, the pc-set embodied by an [8-3-#5] component of a C-root chord is the same one as those embodied by corresponding components of E- and Ab-root harmonies. The possibility of this sort of association means, for instance, that over the course of a progression two separate harmonies having different roots can embody the same augmented triad--the same, that is, in terms both of type-function and of pitch-class content. Such relatedness between triad functions I will term ST-relatedness--'T' standing for type and 'S' designating sameness with respect to both type and pc-set. Hence, the Ab triad [Ab-C-E], the C triad [C-E-G#] and the E triad [E-G#-B#] are all ST-related.

An ST-relatedness of triad functions is especially significant, for example, in the passage extending from m.16 in 'Am Ufer' to the end of the of m.9 in 'Himmelfahrt' (Examples 10, 11 and 12). The augmented triad occurring in ms.16-19 of 'Am Ufer' as a component [Cb-Eb-G] of a Cb chord recurs with the same type-function, i.e., [8-3-#5], in the opening section of 'Himmelfahrt', first in m.2 as an Eb triad [Eb-G-B], then in ms.5-6 as a B(Cb) triad [B-D#-Fx], and then in m.9 as a component once again of an Eb harmony. A similar pattern occurs in the first part of the recapitulation of

'Himmelfahrt': at the end of m.31 that same augmented triad occurs as an augmented Cb triad [Cb-Eb-G] and then recurs with the same type-function but as an Eb triad, first, at the end of the subsequent measure, and then in m.36 and m.37 (Examples 15 and 16).

Another mode of association between triad-functions sharing a single pc-set 3-12 relates certain transpositions of functions differing in type. Particular transpositions of various triad-types are functionally equivalent if, with respect to a given referential tonic, their respective component pitch-classes function contrapuntally in the same way--i.e., if the triads are appropriately conceived they will share the same spelling. Figure 3 (p.32) shows all of the various type-functions that the triad [F-A-C#] could have. Pairs of triads shown are functionally equivalent if both in the pair can be understood, as parts of the harmonies in which they occur, to relate to a common referential tonic--e.g. D, A or F. In 'Ideale Landschaft', for instance, that same triad [F-A-C#] occurs four times: in ms. 4, 8, 28 and 31 (Examples 2 and 5). The triad functions involved are of three different types but the triads differing so are functionally equivalent with respect to the underlying E (or A) tonic. In ms.1-8 of 'Nächtliche Scheu' (Examples 18 and 19), the triad [A-C#-E#] occurs with four different roots: with D in m.3, B in m.5, C# in ms.5-6 and A in m.8. All four triads are functionally equivalent with respect to an underlying A (or D) tonic.

By way of one last category of relationship, a triad function can be understood to be capable of substituting for another. This possibility is contingent once again upon the symmetrical nature of the augmented triad's structure. The function of a particular triad takes on an aspect of substitution when, upon withdrawal from the harmony of which the triad is a component, there is some chromatic or enharmonic adjustment such that the voice leading imitates withdrawal from a triad with a different spelling. With respect to the subsequent harmony the triad has a function of substituting for

Figure 3. A series of functionally equivalent augmented triads of Kind U.

The figure displays two systems of musical notation, each consisting of a treble and bass staff. The first system (top) contains 11 measures, and the second system (bottom) contains 12 measures. Each measure shows a specific augmented triad in the treble staff and its corresponding bass staff notes. Below each system, a set of Roman numeral symbols is provided, representing the functional equivalents of the augmented triads shown in the music.

System 1 (Top):

- Measure 1: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 2: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 3: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 4: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 5: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 6: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 7: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 8: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 9: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 10: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 11: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$

System 2 (Bottom):

- Measure 1: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 2: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 3: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 4: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 5: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 6: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 7: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 8: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 9: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 10: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 11: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$
- Measure 12: D: $\begin{matrix} 1 & 3 & 5 \\ 4 & 6 & 8 \end{matrix}$; A: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$; F: $\begin{matrix} \text{V} \\ \text{V} \end{matrix}$

the one whose function is imitated. In m.8 of 'Nächtliche Scheu' (Examples 19 and 20), for instance, in the shift from an A root chord [A-C#-E#-B] to an F# major harmony, the voice leading imitates that of a shift to an F# chord from its dominant seventh-- i.e. [C#-E#-Gx-B]. The chromatic half step A-A# (realized through octave transfer) imitates the diatonic one Gx-A# such that the A triad functions as a substitute for a C# triad of the same type.

A related effect occurs in ms.16-17 of the same piece (Example 22).¹⁵ The F# harmony with which the recapitulation opens in m.17 is approached from a dominant A chord [A-C#-E-F-G-B] in ms.16-16a. The augmented-triad component [A-C#-F] of the A chord can be understood to function as a substitute for the component [Gx-C#-E#] of a dominant to F# [Gx-C#-E-E#-G-B]--i.e., V (with a C# root) or bII (with a G root) - such that the function of the A harmony as a whole imitates that of a legitimate dominant of F#. The F# harmony does of course give way immediately in m.18 to a D root chord with the triad component [A-C#-E#]. The component [A-C#-F] of the A chord, a dominant in D minor, then functions ultimately as a substitute for a component [A-C#-E#] of a dominant in D major--i.e., for one which would be functionally equivalent to the [5-#7-#9] component of the D chord.

This phenomenon of a triad having a function of substitution is closely related to and indeed derives historically from that of the deceptive progression--i.e., V-VI or V-bVI. The nature of this relationship is illustrated well in ms.2-4 of 'Ideale Landschaft' (Example 2): the dominant E harmony (V/IV) of ms.2-3 gives way in m.4 to an F root harmony (bVI/IV or bII) such that the augmented-triad component [E-G#-B#] of the E chord has a function as a substitute for the component [E-G#-C] of V(#5) of F.

¹⁵Note that an entire measure, marked 16a in the excerpt, has been omitted in the Stein edition. See Gerlach (1972).

Note that a triad and the one for which it substitutes may be ST-related--as is the case in both m.8 of 'Nächtliche Scheu' and ms.2-4 of 'Ideale Landschaft'--but they will not be functional equivalents. The function of a triad can certainly imitate that of another with the same spelling--e.g. in the progression Vb6-bVI, the function of the [8-3-b6] component of V imitates that of a component [8-3-#5] of a true V/bVI. In such a circumstance the nature of the association between the two triads is closely related to that between a triad and the one for which it functions as a substitute. This association, however, is one of the possibilities contingent upon the phenomenon of functional equivalence, while substitution by definition involves triads which, when appropriately conceived, have different spellings. I mean by the term imitation, then, a general kind of function, one involved in either sort of association. A substitutive function is then an imitative function of a particular kind.

I leave now further characterization of triad-functions and functional relationships between triads, taking it up later as the opportunity presents itself in the course of more thorough analysis of excerpts to follow in subsequent chapters, and turn to consider briefly some aspects of the format of my graphic analyses.

Format of the graphic analysis

The voice-leading graphs are essentially chorale-type harmonic reductions of the excerpts. The retaining of bar lines in the graphs preserves a referential level of meter thereby enabling the reductions to reflect some semblance of the harmonic rhythm of the music.

For each harmony distinguished in the graphs the larger note heads designate all or part of a referential skeletal triad--i.e., a root, a third and a fifth if they are there. Pitches not functioning as parts of such a skeleton, including those functioning as subordinate thirds, fifths and octaves, are designated with the smaller note heads.

The Roman-numeral analysis shows the underlying root progression with respect to some referential tonics. Harmonies which are pivotal in that they have significant functions with respect to two or more referential tonics are assigned more than one root-function symbol. With such harmonies it is usually possible to decide which function is the most exposed at the time the harmony occurs. Parentheses are thus used to indicate which of a harmony's functions is (or are), at the time the harmony occurs, the more obscure relative to a more exposed one. A broken line in the Roman-numeral analysis shows a connection in the root progression which is significant but is momentarily interrupted by what intervenes; a wavy line designates a stretch of the progression in which the function of one of the referential tonics as such is of no immediate significance.

Pitches represented in the voice-leading graphs have each been given a letter-name designation, one which reflects the pitch's true tonal function relative to the immediately surrounding context. In order to keep from losing the way through the diatonic maze, it has been necessary in some of the graphs to adjust enharmonically the spelling of an entire harmony. That is, such a harmony is notated twice: the first spelling represents its function with respect to what has come before it, and the second, its function with respect to what comes after.

The Arabic-numeral figuration immediately below the harmonic reduction is essentially a further abstraction of that reduction. Each number designates the scale-degree function of a pitch-class component of a harmony with respect to a prevailing root as designated by the Roman-numeral analysis. Scale-degree functions are graphed such that each of the twelve pitch-classes has its own horizontal axis, and such that adjacent axes correspond to pitch-classes standing a half step apart. Pitch-classes corresponding to the upper- and lowermost such axes are, likewise, a half step apart, but the pitch-class pair involved is not the same one in every drawing.

In the harmonic reduction, the web of voice-leading connections is graphed quite thoroughly. Slurs and arrows represent connections between two instances of the same pitch-class, or between two pitch-classes standing one or two semitones apart. Broken slurs and arrows represent connections which are significant but are indirect in that they are interrupted in a major way.

Each voice-leading connection shown in the harmonic reductions corresponds to one shown in the figuration charts. In the latter, simple connections are designated with straight lines, while slurs designate stepwise connections which have a significant sense of arpeggiation about them.

In the harmonic reductions, each occurrence of an augmented triad in the excerpt involved is designated by a boxing-together of the pitch-functions which combine to bring forth that triad. By virtue of the corresponding boxing of pitch-class functions in the figuration charts, each triad is assigned one of the U-type functions listed in Table 3 (pp. 28-29). A box with broken lines designates a triad, one (or two) of whose component pitch-classes does not literally sound but is, rather, implied. The most complicated box figures are those which group, into two distinct augmented triads, the pitch-class components of a harmony embodying a whole-tone hexachord. Because each pitch-class has its own axis in each of the figuration charts, each pc-set 3-12 will correspond to a distinct set of three such axes. The figuration charts thus portray clearly the patterns of the shifting back and forth from one pc-set 3-12 to another as the sets occur as components of the unfolding harmonies. The drawings reveal at a glance, then, something of the natures of both the tonal and the extratonal effects of the patterns of recurrence of the augmented triad.

Chapter 3: Group 1 Triad-types

Most of the augmented triads occurring in the 'Dehmel Songs' are instances of one or the other of two Group 1 types, both of Kind U. In either type, two component pitch-classes function harmonically as a root and a major third respectively. It is, then, the contrapuntal function of the remaining pitch-class component which determines the type-function of such a triad. In a Type I triad that third component functions as a #5th with respect to a root--i.e., [8-3-#5]--, while in a Type II it functions as a b6th--i.e. [8-3-b6].

Type I

The Type I triad is probably the most common augmented-triad type in tonal music and, as stated in Chapter 1, is the one to which the term "augmented triad" most properly belongs. Partly by virtue of its dissonant raised fifth (#5th), a harmony incorporating a triad of this type will have a function of initiating progression forward to a new harmony, most typically one with a new root. That is, the harmony involved can generally be understood, as illustrated in Figure 4, to have a dominant function, e.g. V#5, bII#5(#6) or bVI#5(#6) (bII/V). The #5th may prepare a component pitch-class of a subsequent harmony (Fig.4c), or it may give way as a leading tone (Figs.4a and b) or via chromatic adjustment (Fig.4e) to a pitch-class a half step higher. Or it may lead to a pitch-class a diatonic whole step above and/or below (Fig.4g). It may even give way to a neighbour a diatonic half step below (Fig.4f). The function of a raised fifth as such--i.e., as initiative of root progression--would, however, be left unrealized if the pitch-class involved were to lead, via chromatic adjustment, downward by half step (Figs.4h and i)--unless of course it were also to lead upwards in one of the sorts of the ways mentioned (Fig.4k).

Figure 4. Various plausible sorts of withdrawals from a harmony comprising a Type I triad.

a) b) c) d) e) f)

g) h) i) j) k)

a) $A\flat: V - I$
 b) $G\flat: VI - V - I$
 c) $G\flat: VI - I$
 d) $C: \flat VII - \flat VII - V - i$
 e) $F\sharp: \flat VII - \flat VII - V - i$
 f) $G\flat: VI - \flat II / \flat VI - \flat VI - V - I$
 g) $G\flat: VI - V - I$
 h) $E\flat: VII - V$
 i) $G\flat: VI - i$
 j) $E\flat: VII - \flat VII$
 k) $F\sharp: \flat VII - \flat VII - i$

There are several sorts of approaches to a #5th which would help concretize the #5th as such. Often a #5th is approached by chromatic half step from an unaltered 5th above the same root (Fig.5a). A related circumstance is one in which that which would be the unaltered fifth and from which the #5th is approached is, in fact, prepared in a preceding harmony--e.g., as a root of V of the ensuing #5 chord--only to be displaced a half step higher (i.e., to the #5th) at the moment the root shift involved occurs (Fig.5b). A raised fifth may also be characterized as such partly by a half step approach from above, from a pitch-class component in a preceding harmony, such that it functions as a diatonic lower neighbour reaching back upwards to that pitch-class from which it was approached; such a lower neighbour function will typically be further substantiated by a reciprocal half-step shift back upward from the #5th in the withdrawal from the harmony of which it is a part (Fig.5c). The function of a #5th as such may also be concretized partly by way of an appropriate preparation of that pitch-class in a preceding harmony (Figs.5d and e).

Figures 4 and 5 illustrate the obvious fact that when the Type I triad is comprised by a harmony which functions as V or $\flat VI$, the referential tonic harmony

Figure 5. Various types of contrapuntal patterns which would tend to concretize the function of a #5th of a Type I triad as such.

a) b) c) d) e)

Ab: V⁵-^{#5} - I Ab: V/V - V - I - Ab: I - V - I G: V⁴-bVI - V - I G: V - bVI - V - I

will be a major one. That is, as a component of a V, its #5th will be understood at some level as a diatonic lower neighbour to a pitch-class which functions as a 3rd in the corresponding I; and, as a component of a bVI, its #5th will at some level prepare, and/or be prepared by, the 3rd of the corresponding I. In some contexts a Type I triad may be understood as part of a tertiary dominant of a referential minor tonic harmony: as part of bVI#5(#6)/V/i its root and 3rd will at some level prepare the b3rd and 5th, respectively, of i, and its #5th will be understood at some level as a leading tone to the root of i (Fig.4d); as part of bII#5(#6)/bVI(#6)/i its 3rd and #5th will function at some level as diatonic upper neighbours to the root and b3rd, respectively, of i (Fig.4e).

The understanding of a #5th as such, and hence of a Type I triad as such, is concretized quite clearly in m.8 of 'Nächtliche Scheu' (Examples 19 and 20) where, on the second beat of the measure, an E#, a component of a Type I A triad, [A-C#-E#], is heard as a fifth which has literally been raised by way of an approach from the unaltered 5th, E, on the first beat. The #5th leads to a pitch-class a diatonic half step above, i.e., to the root of the subsequent F# harmony. (Recall that in Chapter 2 this Type I triad, [A-C#-E#], was said to function as a substitute for the TS-related C# triad, [C#-E#-GX]--a substitute, that is, in light of the ensuing shift to an F# chord; hence the root shift A#5-F# here is "V#5"-I in F#.)

Similarly, in the opening two measures of 'Himmelfahrt' (Examples 10 and 11) the #5th, B, of a Type I Eb triad, [Eb-G-B], is approached from the unaltered 5th of the Eb harmony in m.1. In this case the #5th leads (via register transfer) to a pitch-class not a diatonic but rather a chromatic half step above, i.e., to B#, a #6th in a D harmony (bII#6/C#).

In m.5 of 'Himmelfahrt' (Example 11) the root of an F# harmony on beat 1 prepares the 5th of a B harmony coming on beat 2, that 5th then leading to a #5th in the upper register on beat 3 such that the B harmony of ms.5-6 comes to comprise a Type I triad [B-D#-Fx]. I hear the root shift, F#-B, as occurring with the arrival of D# on beat 2 of m.5, but the literal occurrence of the B root is withheld until the end of the measure, being approached there from a suspended #7th (A#) and from an implied suspended 9th (C#). Thus that B actually sounds not with the unaltered fifth (F#) but only with the #5th (Fx).

Recall that in Chapter 2 the Type I Eb triad of m.2 was said to be ST-related to the Type I B triad of ms.5-6 and to that (discussed below) of the preceding song, 'Am Ufer' (Examples 10-11). The voice leading of ms.2-5 of 'Himmelfahrt' thus effects a transformation whereby the set which occurs as a Type I Eb triad in m.2 comes forth again in ms.5-6 as that same type but transposed down a diminished fourth (or a major third, i.e. Eb-B(Cb)) such that it functions once again as it did in ms.16-19 of 'Am Ufer'. Note, however, that unlike the B harmonies of 'Am Ufer', that of ms.5-6 of 'Himmelfahrt' is not V/E--not in any immediate way at least (see below)--, but rather bVI/Eb. The B harmony of ms.16-19 of 'Am Ufer', in light of its part in the approach to the opening of 'Himmelfahrt', does of course ultimately function as bVI/Eb as well-- i.e., the root progression B(Cb)-Bb-Eb in the approach the opening Eb harmony of 'Himmelfahrt' is bVI#5-V-I in Eb.

In a corresponding pattern in the opening of the recapitulation of 'Himmelfahrt' in ms.31-32 (Example 15), the root of the dominant F#(Gb) harmony (V/B), with which the measure begins, prepares what would be the unaltered 5th of a B chord. Upon the root movement to B on the last eighth of the measure, however, F# gives way to Fx, the #5th of a Type I B triad, [B-D#-Fx]. The B(Cb) triad then leads as bVI#5/Eb to a Type I Eb triad ms.32-33 by way of an intervening Type I Bb triad (V#5/Eb), a TS-relative of the Type I F# triad from which the B(Cb) triad is approached.

In m.39 of the same piece (Example 17), the root of a C# chord occurring on first part of beat 3 prepares the 5th of an F# chord, only to lead, upon the root shift from C# to F# on the last eighth of the measure, to the #5th of a Type I F# triad, [F#-A#-Cx].

The treatment of the #5th of a Type I triad as a lower neighbour is illustrated in ms.3-6 of 'Am Ufer' (Example 7) (and in its counterpart in the recapitulation, ms.16-17 (Example 10)). Here the motions G#-Fx are neighbour motions from the 3rd, G#, of a dominant E harmony (V/A minor) to the #5th, Fx, of a Type I B triad, [B-D#-Fx]. The effect of the root progression E-B here is one of recoiling from V to V/V in A minor. (I hear the pedal A in ms.2-4 not as a root but as a suspended or anticipatory 4th in V/A and as a 7th in V/V/A.) The Fx in these measures reaches towards G# and, indeed, resolves there with each return to V/A.

A strikingly similar pattern occurs in ms.23-24 of 'Ideale Landschaft' (Example 4a). The #5th, Fx, of a Type I B triad in m.24 is approached both from the third, G#, and via register transfer from the ninth, F#, of an E harmony in m.23. Fx then leads back to the G# of m.25. Note that Fx recurs in the upper register in m.25 where it is approached at the surface by chromatic half step from below. (I qualify my analysis of this passage in Chapter 6.)

In m.9 of 'Am Ufer' (Example 8) the harmonic progression is essentially a shift from a dominant G# chord (V/V/F#, introduced in m.8) to a Type I C# triad (V/F#). The raised fifth, Gx, of the C# chord is approached both from above and from below by half step--from an appoggiatura A# and from the root of the G# chord. Gx in turn leads to the A# in the voice part of m.10 which itself resolves, as a leading tone, to the root of a B harmony.

In m.4 and in m.31 of 'Ideale Landschaft' (Example 2 and Examples 5 and 6) the #5th of a Type I F triad [F-A-C#] is understood as such partly by virtue of a preparation, albeit an interrupted one, as a 6th in an E harmony. Note that here is a case where the functioning of a pitch-class as a x4th--the implied B# above the F root--can be said to help substantiate the functioning of the root (F) as such. That pitch-class, besides having a prevailing function in the passage as a B#, can thus also be said to have a momentary function over an F root as a "C" (a "5th") on the beat 1 of the measure (m.4 and m.31). Its function as B#, which is concretized in ms.1-3 where it functions as a #5th of a Type I E harmony, is further substantiated by its leading on beat 2 to the #5th (C#), the pitch-class towards which it reaches as a leading tone in ms.2-3. The neighbour motion C#-B#-C# in ms.1-4 then helps concretize the functions of the #5ths of both the E and F triads as such, and thus the functions of both triads as Type I's.

The #5ths in the Type I triads on beats 3 of both ms.1 and 2 of the opening refrain of 'Helle Nacht' (Examples 24 and 25)--and in the returns of this refrain in ms.12-14 (Examples 26 and 27), ms.23-25 (Examples 28 and 29) and ms.34ff.(Example 31)--are, likewise, prepared in harmonies from which the triads are approached. In m.2, the #5th (B), of the Type I Eb triad [Eb-G-B] is prepared in an upper register at the beginning of the measure as the #4th of an F chord, which is in turn prepared in the

lower register in m.1 as #6th in a Db chord (bVI#6/F). As a #5th in ms.2-3, B, in turn, prepares the root of the B major harmony of m.4.

The #5th of the Db chord of m.1 is prepared most immediately as an the b5th of the D# harmony with which the piece begins. That b5th is in turn prepared as the 5th of the D harmony with which the preceding song, 'Nächtliche Scheu', ends. I pursue discussion of the complex overlaying of keys in this passage below. But for now I will let it suffice to say that I hear the opening harmony of 'Helle Nacht' as having a root of D# and as functioning most immediately as a dominant #^{II}bb8(b4) (a variant of Vb5#5) to the following C#6 harmony, its root thus functioning as a diatonic lower neighbour to the 3rd (E) of that C chord. (The #^{II} function is concretized more clearly in ms.11-12, ms.22-23 and ms.33-34 where the returns of this harmony are indeed approached from C harmonies.) Its root is, in turn, approached most immediately both from above via diatonic half step (E-D#) from the closing E of 'Nächtliche Scheu', a 9th in the closing D harmony, and via chromatic half-step from below, from the root of that D chord; however, the D# is indeed ultimately prepared as such in m.25 of 'Nächtliche Scheu' as the 3rd of a B chord and as the 9th of a C# chord (V9/V/B), the pitch-class from which both the D and the E of ms.26-27 are approached. Note that in the beginning of the second verse, ms.12 ff. (Examples 26 and 27), the A of the Db chord in m.12 can indeed be understood, as having been prepared as such in ms.8-11 where it functions first as the 5th of the D chord in m.8, then as the b6th of the C# chord in ms.9-10, and then as an implied b3rd in the momentary allusion to an F# harmony on beat 1 of m.11.¹⁶ The Db harmony of m.1 is of particular significance in that it is to be the harmony with which the entire song cycle ends (Example 31), ms.41-47 being essentially a final recapitulation of m.1. (Ms.12-22

¹⁶The triad [C#-E#-A] in ms.9-10 is discussed below as an instance of the Type II triad.

and ms.23-33 constitute a second and a third verse, respectively, and ms.34-47 constitutes a coda whose content derives entirely from that of ms.1-2.)

Given that the opening two-measure idea of this song begins with a D# harmony which includes an unaltered 5th, A#, and ends on an Eb harmony with a #5th, B, one of the functions of the voice-leading pattern as a whole is to accomplish the raising of the fifth, i.e. A#(Bb)-B. Note the contrast between the extreme complexity of this process and the relative simplicity of the comparable such adjustment, discussed above, in ms.1-2 of 'Himmelfahrt' (Example 11). The Type I Eb triad is then recalled as part of bVI/C or (bII/bVI/F#) in m.8 (Example 26), a harmony which comprises both a 5th and a #5th. In that the Eb chord of m.2 is approached from a D harmony and the Eb chord of m.8 leads to a D harmony, the Type I components of both do indeed have the same immediate function as does that of m.2 of 'Himmelfahrt'--i.e., bII#5/D.

Type II

Most of the Type II triads occurring in the 'Dehmel Songs' can be understood as instances of one or the other of two sub-types, Type IIa and Type IIb, depending on the perceived contrapuntal function of the b6th involved. While a Type II triad can, in some cases, be perceived ultimately to have functional qualities of both sub-types, it is generally the case that at the surface those of one are more prominently exposed than are those of the other.

In a Type IIa triad the b6th functions as an appoggiatura or upper neighbour to an unaltered 5th. Unlike the Type I triad, whose #5th motivates harmonic progression involving a change of root, the Type IIa triad reaches, through a resolution of the upper-neighbour b6th to the unaltered 5th, toward consolidation of the harmony around the already prevailing root. If, as is often the case, the b6th is prepared as part of a preceding harmony, the b6th is then really a suspension (Figs.6a and b). As with a

preparation of a #5th, so does preparation of a b6th, then, help decide the appropriate chromatic identity of the pitch-class involved with respect to the harmonic context in which it stands.

The Type IIb triad differs from the Type IIa in that its component b6th functions most immediately, not as an upper neighbour reaching toward a 5th, but as a preparation of a component of an ensuing harmony, a harmony with a new root. Most typically the b6th prepares the b3rd of a minor harmony, thus making the harmony of which the b6th is a part a dominant, i.e., Vb6/i (Fig.6c). The Type IIb triad, as a component of V in a minor key, is then the counterpart of a Type I component of V in a major key. In the Type I and the Type IIa triads the #5th or the b6th will typically displace an unaltered fifth, but in the Type IIb the unaltered 5th and the b6th may stand as two relatively independent harmonic components, the 5th thus ideally leading downward by step upon resolution of the dominant function harmony of which it is a part (Fig.6d). Being relatively independent of the b6th, the 5th may itself be embellished with a #4th as its lower auxiliary (Fig.6e).

Figure 6. Various sorts of contrapuntal contexts which would tend to concretize the function of a Type II triad as such.

a) b) c) d) e)

F# I - V b6-5 F# VII - V b6-5 F# V5-b6 - i F# V b6 - i F# V b6 - i

A Type IIa triad occurs in ms.5-6 of 'Nächtliche Scheu' (Example 19) where, upon the shift from a B to a C# root on beat 3 of m.5, an A, introduced at the end of m.4 as the 7th of a dominant B harmony, becomes a b6th which combines with a root, C#, and a major third, E#, to form the triad [C#-E#-A]. With respect to the C# root, then, A functions most immediately as a suspension which resolves to an unaltered fifth, G#,

on the last eighth of m.6. (Note that with the shift from F# to Fx in ms.4-5, the B harmony comes to incorporate a raised fifth and hence a Type I triad, [B-D#-Fx]. The triads [C#-E#-A] on beat 1 of m.5--heard as part of the B harmony--and [B-D#-Fx] on beat 3 of the same measure--heard as part of the C# harmony--are discussed in Chapter 5 as instances of a Group 3 triad-type (Type V). The harmony of m.5 is then discussed as a whole to illustrate how Group 1- and Group 3-types can combine to form whole-tone hexachordal harmonies.)

The Type IIb aspect of a b6 triad is realized indirectly in this case in that the A ultimately prepares, via G# in ms.6-7, the root of the A chord in m.8. The third, C#, of the A chord is likewise prepared, indirectly via D and B# in m.7, as the root of the Type II triad in ms.6-7.

This connection between A's and C#'s in m.5 and m.8 is especially significant in that the raising of the fifth of the A chord in m.8, E-E#, brings forth a Type I A triad, [A-C#-E#], a triad which is functionally equivalent to the Type II C# triad of m.5. The connection between the E#'s of these two triads is obscured by an enharmonic adjustment in m.7. E# of m.6 becomes an F in m.7 so that the root of the E chord at the end of the measure, which prepares the unaltered fifth of the A chord, may be approached by diatonic half step from this F, the b3rd of a D chord. The functional equivalence helps mediate an overlaying of F# and D as referential keys in this passage. (Both of these triads are functionally equivalent to the component [E#-A-C#] of the D harmony of m.3. The latter is discussed in Chapter 4 as an instance of a Group 2 type (Type IV).) The C# harmony is potentially a dominant of F#, albeit of F# minor, and the A harmony is potentially a dominant of D. The potential dominant function of the C# chord is realized, then, in m.8, upon the resolution to F# of the A harmony, a substitute for a dominant C# chord. The dominant-of-F#-minor function is

indeed consummated in that the root of the A harmony prepares a b3 component of the F# harmony.

A similar instance of a Type II triad occurs in the first half of m.38 in 'Himmelfahrt' (Examples 16 and 17). Here again an A, functioning most immediately as an appoggiatura b6th, combines with a root and a major third of a C# chord to form the triad [C#-E#-A], the A then resolving to the 5th, G#, on the fourth eighth of the measure. Preparation of the appoggiatura is somewhat obscure. One can understand there to be an implied component A in a whole-tone-hexachordal Eb harmony at the end of m.37. (While the presence of this preparatory A is only implied, in an earlier version of this passage, shown in Example 16a, the A of m.38 is indeed explicitly prepared as at the end of m.37.¹⁷) The implied A is itself prepared most immediately as the fifth of the D harmony at the beginning of m.37, but preparation of the A, and indeed the triad [C#-E#-A] as a whole, ultimately reaches as far back as the C# (Db) harmony of m.34.¹⁸ Note that the most significant difference between the first and second versions of m.37 is that in the latter the D harmony does not lead directly to an E harmony, as in the former, but by way of the C#79 chord on beat 2. This change serves to better concretize the underlying root movement from D to C# in ms.37-38 and hence the sense of preparation of A in m.38 as a 5th of the D chord.

In subsequent chapters I will consider further the progression in ms.34-38 as well as that in ms.37 ff. For the time being it will suffice to note simply that the latent dominant function of the harmonies comprising Type II C# triads in this passage, and

¹⁷Example 16a is taken from Gerlach [1972], but as Gerlach only cites the piano part I've added the voice-part as shown in the Stein edition.

¹⁸The passage ms.34-38 is discussed in Chapter 4 in connection with the whole-tone hexachordal harmonies occurring in ms.35, 36 and 37. Note that the triad [C#-E#-A]([Db-F-Bbb]) occurs four times through the course of these measures, the first two as a Type II component of a Db(C#) harmony and the subsequent two as the Group 4-type (Type VI) component of an Eb harmony.

of that in m.38 in particular is ultimately consummated with the root shift C#-F# at the end of m.39. This connection is mediated by the dominant C# chord on beat 3 of m.38, a harmony which itself comprises a Type I triad, [C#-E#-Gx].¹⁹ Compare the intermediary function of this harmony with that, discussed above, of the A harmony in m.8 of 'Nächtliche Scheu'. (Note that the pitch-class content of the two harmonies is precisely the same--i.e., [C#-E#-Gx-B] and [A-C#-E#-B] respectively.)

The suspension pattern (A-G#) in m.38 actually derives from a similar such pattern in the opening phrase of the same song (Example 11). On the last beat of m.3 an A reaches as an upper neighbour toward the 5th of a C# chord, G#, to which it resolves via register transfer in m.4. The occurrence of the A is, in turn, a delayed resolution of an appoggiatura b6th, Bb, in the D harmony with which m.3 begins.²⁰ The harmonies in m.3 thus enclose two consecutive Type IIa triads: [D-F#-Bb] - [C#-E#-A]. Neither of the b6ths involved in this pattern is literally prepared at the surface. However, as the A is the 5th toward which the Bb reaches for resolution, there is a sense in which A is in fact prepared as a component of the D chord. While approached most immediately from above by step (B#-Bb), the b6th of the D chord can be understood as ultimately a suspension, prepared in the upper register of m.1 as the 5th of the Eb harmony. As in above examples, here too the latent dominant function of the

¹⁹ In the voice part of m.38 a double neighbour approach to the 9th, A#, of the G# harmony (V/V/F#) at the end of that measure--A--B-A#--accomplishes a chromatic adjustment, A-A#, thereby ultimately anticipating the major 3rd of the F# chord at the end of m.39.

²⁰I say "appoggiatura b6th" here because the third beat of m.3 is metrically subordinate to the second. A sarabande-like metric pattern (1+2 / 1+2 / etc.), established in ms. 1-2, prevails throughout ms.1-4: the relatively strong phenomenal accents on beat 2 of m.3--e.g., in the dissonance (the b6th, Bb, against the D root), in the attack density, and in the leap approaching the bass note D--help substantiate a metric accent on that beat such that the function of Bb as an appoggiatura is concretized.

harmony of which the Type II C# triad is a part is consummated by the suggestion of an F# harmony in m.5.

'Am Ufer' opens with a Type IIb E triad, [E-G#-C], which is comprised by a dominant of A minor (Example 7). In the voice-part of ms.2-3 a 5th, B, is introduced as a harmonic component, the B being embellished with a lower neighbour A# (#4th). (Cf. Fig.6d) The E harmony is further complicated firstly by the entrance of D# (#7th), a lower auxiliary to the root, at the end of m.1, and secondly by the entrance of the tonic pedal A (4th) at the end of m.2. While A and C (4th and b6th) are anticipative of a resolution to a tonic A minor harmony, the E harmony instead recoils, as discussed above, to a B root harmony in m.3. The pedal A thus becomes a 7th in the B chord, and the #7th, D#, in ms.1-2 ultimately prepares its 3rd.

The function of the augmented triad with which 'Am Ufer' opens is clarified partly by way of the connection between the beginning of this song and the ending of the preceding song (Examples 6 and 7). The Type IIb component of the E harmony with which 'Ideale Landschaft' closes prepares that with which 'Am Ufer' opens. The b6th component of the former is prepared as the root of a C harmony--bVI/E--in m.34. In ms.35 ff. the Type IIb function of the triad [E-G#-C]--i.e., the potential dominant function of the E harmony--is substantiated in that C, the b6th, does not displace the fifth; rather C and B sound together as two components of a harmony comprised of four pitch-classes. The B of ms.2-3 in 'Am Ufer' can then be understood to have been prepared as a fifth in ms.35 ff. of 'Ideale Landschaft'.

By way of the recoiling to a B harmony in ms.3-4 of 'Am Ufer', the function of C as an upper neighbour reaching toward B, and with it the Type IIa function of the triad [E-G#-C] lying latent in ms.1-2, do eventually come forth in ms.3-4. An appoggiatura function of C, for instance, is well pronounced in the last beat of m.3 where C sounds as a suspended b9th and resolves to the root of a B harmony. The B

root in ms.3-4 itself prepares the fifth of the harmony of m.5, an E harmony with no b6th. Thus, over the course of ms.1-4 the Type II_b function of the triad [E-G#-C] is superceded by a Type II_a function; that is, the anticipative function of C is eventually superceded by an appoggiatura function such that C ultimately resolves as an upper neighbour to the fifth of the prevailing E harmony. The treatment of C in these measures is much like that of A which is introduced into an E harmony as an anticipation of a root and then, as the 7th in a B harmony, becomes an upper neighbour reaching toward the 3rd of that E harmony.

M.10 of 'Am Ufer' (Examples 8 and 9) is essentially a repeat, transposed up a fifth, of the opening measures of the song. The triad [B-D#-G] of m.10 is thus also a Type II_b. The B root is embellished in the voice part with a double neighbour approach (A#-C-B), and the 5th, F#, is embellished with a lower neighbour E# (a #4th, prepared as the 3rd of the Type I C# triad [C#-E#-Gx] at the end of m.9. Note the transformation over the course of ms.6-10 of the set occurring as a Type I component, [B-D#-Fx], of the B harmony of ms.3-6 into that occurring as a Type II component, [B-D#-G], of the B harmony (Vb6/E minor) in ms.10-11. This transformation is effected by way of a chromatic adjustment, Fx-F#, accomplished in the of a further recoiling from the B chord to its dominant, F#, in ms.7-8 such that, in contrast to the B chord of m.6 with its #5, that of m.10 comes forth with an unaltered 5th and a b6th. The set then recurs as a Type I B triad once again, of course, in the recapitulation proper (ms.15ff.), in ms.16-18. (Example 9), but I hear the return of a Type I B triad as actually occurring in m.11. There the pitch-class which functioned in m.10 as a b6th (G) is approached from below, first in the voice and then in the l.h. part, from the 5th (F#), and then leads to a G#--which functions as a #6th in the Bb harmony (bII#6/A) of ms.12-13--such that it is enharmonically reinterpreted as a #5th (Fx). With the transformation of the Type II B triad into a Type I in ms.10-11 the referential key of

E minor is dissolved and the B harmony is turned towards a referential A tonic (ms.11-19) as V#57/V, the Bb harmony of ms.2-14 being bII/A.

The middleground root shift B(Cb)-...Bb of ms.10-12, besides functioning most immediately as V/V-bII in A, may be heard at a deeper level to anticipate (as bVI-V) the emergence of Eb as a referential tonic in 'Himmelfahrt'. That root shift B(Cb)-Bb is indeed recalled at the surface in ms.17-20 (Example 10) to form an approach to the opening Eb harmony of 'Himmelfahrt'--i.e., bVI-V-[I] in Eb.

As a final example, in this chapter, of a Type II triad, I now take that which comes forth in the dense and complex ending of each verse of 'Helle Nacht'. At the end of the first verse (Example 26), for instance, the C# harmony of ms.9-10 incorporates, at the ends of both of those measures, a Type II triad [C#-E#-A]. As with the C# harmony in m.3 of 'Himmelfahrt', this one is approached via the root progression Eb-D (m.8). The voice leading Bb-A-G# in the upper register of the piano part in ms.9-10 imitates canonically the bass line of ms.8-9. The Bb and the A thus each have an aspect of suspension about them, i.e., they are prepared in m.8 as 5ths of the Eb and D harmonies respectively. The "suspended" Bb resolves to A, and A to G#. (Cf. ms.1-4 of 'Himmelfahrt' (Example 11). It is the Type IIa aspect of the function of the triad [C#-E#-A] then which is most exposed in its first iteration at the end of m.9. The Type IIb aspect, however, is realized in ms.10-12, where, upon its recurrence at the end of m.10, the b6th, A, prepares an implied b3rd in the fleeting glimpse an F# minor triad which occurs on beat 1 of m.11, before dissolving into a C chord on beat 2.

I said above that the #5th, A, of the Db chord in m.12 of 'Helle Nacht' is prepared in the preceding D# harmony as a b5th, which is, in turn, prepared as a b6th, A, of the C# harmony in ms.9-10. This connection between the A's of ms.9-10 and m.12

then constitutes the most direct link involved in the transformation of the set embodying the Type II triad [C#-E#-A] in ms.9-10 into a Type I triad, [C#-E#-Gx] ([Db-F-A]), in m.12. This pattern of transformation of C# triads indeed proves to be motivic in the song cycle as a whole. As discussed above, it occurs in ms.38-39 of 'Himmelfahrt' (Example 17). These two patterns are, in fact, amplifications of one which lies latent at the more immediate surface in ms.3-4 of 'Himmelfahrt' (Example 11). There a Type I C# triad does not literally sound but is, nevertheless, implicitly formed at the end of m.4 when a #5th, Gx--approached indirectly from an unaltered 5th, G#, via a b5th, G--combines with an implied major 3rd, E#--leading to an F# root in m.5--and an implied root, C#--leading ultimately to a B root in m.5. Thus the set which occurs in m.3 as a Type II C# triad recurs implicitly in m.4 as a Type I. The pattern occurs first, however, in ms.8-9 of 'Am Ufer' (Example 8) where transformation is effected, as in ms.38-39 of 'Himmelfahrt' (Example 18), via an intermediary G# harmony.

This recurring transformation pattern is comparable to those involving the set which functions as B triads (Types I and II) and as Type I Eb triads through the course of the first three songs. As discussed above, the pattern of recurrence of B triads spanning 'Am Ufer' comprises the succession: Type I - Type II - Type I (ms.3-10 and ms.10-19). The progression from m.19 of 'Am Ufer' through to ms.9 of 'Himmelfahrt' comprises the pattern of exchanges of ST-related Type I B(Cb) and Type I Eb functions: Type I B(Cb) - Type I Eb (m.2) - Type I B(Cb) (ms.6-7) - Type I Eb (m.9). The exchange pattern is resumed in the opening measures of the recapitulation of 'Himmelfahrt' (Examples 15 and 16) where there occurs the succession: Type I B(Cb) (m.31) - Type I Eb (ms.32-37). The set recurs again in m.40 as a Group 3 component (Type VII) of an F chord (a functional equivalent of a Type I B triad), then in m.42 as

a Type I Eb triad and in m.45 as a Type II Eb triad (Example 17), and finally in m.5 of 'Nächtliche Scheu' as a Type I B triad (Example 19).

Notice also that a pattern involving transformations of an E triad spans the whole of 'Ideale Landschaft': Type I - Type II in ms.1-10 (Example 2), Type II - Type I in ms.23-28 (Example 5), and Type I - Type II in ms.28-38 (Examples 5 and 6). The latter Type II eventually gives way in 'Am Ufer' to the Type I B triad with which the B-Eb pattern begins. After the occurrence of the Type II E triads in ms.15-17 of 'Am Ufer' (Examples 9-10), Type I E triads finally begin to recur toward the end of the B(Cb)-Eb pattern: in m.38 of 'Himmelfahrt' and then in ms.1-2 and m.7 of 'Nächtliche Scheu' (Example 17). The two patterns combine then to comprise what amounts to a background neighbour motion--E - [B-Eb(D#)] - E--which spans the first four songs. I deal with this neighbour pattern at some length in my concluding chapter, but I mention it briefly here to give some hint as to where I am leading with what might so far seem like an overly meticulous attention to surface detail.

Chapter 4: Group 2 Triad-types

In each of the three Group 2 triad-types occurring in the 'Dehmel Songs' one of the elements functions as an unaltered 5th (or as a x4th ("5th")) with respect to a root. The three types are thus distinguished according to the functions of their other two components which stand, respectively, a half step below and three half steps above the referential root. A Type III triad comprises a #7th, a b3rd and a 5th--[#7-b3-5]; a Type IV comprises a #7th, a #9th and a 5th--[#7-#9-5]; and a Type V comprises a b8ve, a b3rd and a 5th--[b8-b3-5]. I leave consideration of the Type V triad until the end of the chapter and focus discussion now on Types III and IV.

Types III and IV

The Type III occurs typically as a component of a i#7 harmony. It is closely related to the Type II in that a particular transposition of the latter, as a component of a dominant V chord--i.e., of a Vb6--will reach towards resolution to a corresponding i triad just as will the functionally equivalent Type III (Figs.7a and b). Particular transpositions of Type IV and Type I triads are related in a similar way: functionally equivalent components of a V#5 and a corresponding I#7#9--Type I and Type IV respectively--will reach toward resolution to the same I triad. (Figs.7c and d).

In contexts in which a Type IV occurs as part of a bVI (or a bII)--i.e., bVI#7#9 (or bII#7#9)--the #7th and the #9th may be prepared by and/or prepare the root and 3rd, respectively, of the corresponding V (or I) (Fig.7e). Such a bVI harmony may indeed be approached from and/or withdraw to a V chord comprising a Type II--i.e., a Vb6--, one which will be functionally equivalent to its Type IV component (Fig.7f). Functionally equivalent to both will be the Type III component of the corresponding i#7, and also the Type I triad comprised by a corresponding bVI#5(#6)/V. Thus, around

any given minor tonic harmony, we may gather together particular transpositions of each of the triad-types discussed so far, into a group of four functional equivalents: Type IV in $bVI\#7\#9$, Type III in the corresponding $i\#7$, Type II in $Vb6$, and Type I in $bVI\#5(\#6)/V$ (Fig.7g).

Functionally equivalent to the Type I component of $V\#5$ and the Type IV of the corresponding $I\#9\#7$ is a Group 2 triad in a corresponding bVI chord. The latter triad is a variant of a Type IV--hence, Type IVa--in that one of its elements, that corresponding to the $\#5$ th in $V\#5$ and to the $\#9$ th in $I\#7\#9$, is not a true 5th but rather a $x4$ th--i.e., $[\#7-\#9-x4("5")]$. Thus, around any given major tonic harmony we may gather together into a group of functional equivalents, particular transpositions of three of the triad-types discussed so far: Type I in $V\#5$, Type IV in the corresponding $I\#7\#9$, and Type IVa in the corresponding $bVI\#7\#9x4$ (Fig.7h).

Figure 7. Functional equivalence amongst Group 1 and Group 2 triad types.

a) $A: Vb6 - i$ b) $A: i\#7 - 6$ c) $F: V\#5 - I$ d) $F: I\#7\#9 - 3$ e) $A: bVI\#7 V7 - i$ f) $A: Vb6 - bVI\#7 - Vb6 - 5$ i

g) $A: Vb6 - bVI\#7 - Vb6 - V - bVI\#7 - V - V7 - i\#7 - 8$ h) $F: V\#5 - bVI\#7 - V\#5 - V - I\#7\#9 - 3$

The $\#9$ th component of a Type IV (Fig.7d) is the counterpart of the $\#5$ th of a functionally equivalent Type I triad (Fig.7c), and, like a $\#5$ th, a $\#9$ th may be concretized as such partly by virtue either of an appropriate preparation as a component of a preceding harmony (Fig.8a) or of an approach to the pitch-class

involved from one a half step above. In the latter case the pitch-class of approach may function as a 3rd above the same root (Fig.8b) or as part of a harmony with a different root (Fig.8c). If approached from above by diatonic half step the #9th may also be approached by chromatic half step from below, from a pitch-class which functions either as an unaltered 9th (Fig.8b) or as a component of a harmony with a different root (Figs.8c and e); or it may be approached from below by diatonic half step, i.e., in $bVI\#7\#9/bVI$ approached from $bVI\#6$ (Fig.8d).

The understanding of a #9th as such will be substantiated further if it either prepares an appropriate component in a succeeding harmony (Fig.8f), or leads by half step up to a 3rd (Fig.8g) or to a component of a harmony with a new root (Fig.8h). I suggest that a #9th in a Type IV triad is also partly concretized as such if both the #9th and the #7th are approached by half step from above such that they are associated as a pair of lower neighbours (Figs.8b and e); that is, in such a case a pitch-class will be understood as a #9th, rather than as a $b3rd$, partly by virtue of this kind of association with a harmonic component--i.e., a #7th--whose scale degree function with respect to the root is somewhat less equivocal than the #9th function.

Figure 8. Various sorts of approaches to and withdrawals from a Type IV triad which would help concretize it as such.

a) b) c) d) e)

f) g) h)

An intimate connection between a Type II and a functionally equivalent Type III features prominently in the recapitulation of 'Am Ufer' (ms.15ff.) (Examples 9-10). In the opening measures of the song an A-root harmony does not literally occur but is, rather, only alluded to in that the dominant E chord reaches towards such a harmony. (Recall that I stated above that I hear the pedal A in ms.2-4 as an anticipative 4th in the E harmonies and as a 7th in the B harmonies.) An A-root i chord does indeed unequivocally occur, however, on the downbeats of both m.15 and m.16. With the root shift pattern A-E-A-E in ms.15-16, effected primarily by the neighbour motion A-G#-A-G# in the l.h. of the piano part, the function of the triad [C-E-G#], sustained throughout, shifts back and forth between that of a Type III [b3-5-#7] and that of a Type II [b6-8-3]. (Note that, with the suspension of B across the bar line of ms.15-16, the A harmony on the first beat of m.16 shares the tetrad [C-E-G#-B] with the preceding E harmony; and with the succeeding one, on the second eighth of the measure, it shares the entire pentad of which it is comprised--i.e., [A-C-E-G#-B].)

The b3rd (C) of the A harmony of m.15, while approached directly from the root (Bb) and 3rd (D) of a Type I Bb triad [Bb-D-F#] at the end of m.14, is prepared indirectly in lower register of m.14 as the root of a passing C minor chord (ii/Bb). The 5th (E) is ultimately prepared in the Bb harmony of ms.13-14 as a #4th which is, in turn, prepared in m.13 as a 5th of the fleeting A major harmony on the second half of beat 2. The #7th (G#) of the A harmony, is approached most immediately from the #5th (F#) of the Bb chord but is, at a deeper level, prepared as a #6th in ms.12-13.

While the Bb harmony of ms.12-14 functions most immediately as bII of A, the root movement Bb-A of ms.12-15 indeed marks the beginning in the song cycle of significant allusions to D as a referential tonic--i.e., Bb-A is bVI-"v" in D--, the significance of a D tonic becoming more clearly realized in 'Himmelfahrt' and then in 'Nächtliche Scheu'. The implication of D as an underlying referential tonic is further

substantiated by the moment of repose on the A major triad (V/D) in m.13, the progression in m.13 thus being, in this light, bVI-V-bVI in D. As discussed above (p.51), however, the surface-level root progression B(Cb)-Bb in ms.17-20, approaching the opening Eb chord of 'Himmelfahrt', and its deeper level anticipation in the middleground progression in ms.10-14 (and, at a deeper level still, in ms.6-14), concretize allusions to the key of Eb--B(Cb)-Bb being "bVI"-V in Eb. Hence, the overlaying of suggestions of the keys of D and Eb, a significant issue in 'Himmelfahrt', is in fact introduced in ms.10-15 of 'Am Ufer'. The pivotal function of the Bb harmony of ms.12-14 in this overlaying--as V/Eb and bVI/D--is comparable to that, to be discussed in Chapter 7, of the Bb chord in m.41 of 'Himmelfahrt' (Example 17). Note too the pivotal function of B(Cb) harmonies in this piece: they are introduced as V/E and thus as V/V/V/D, and left as "bVI"/Eb--i.e. in ms.10-12 and ms.18-20.

A Type IV triad [A-C#-E#] is formed over a D root In the first part of m.3 of 'Nächtliche Scheu' (Examples 18-19). The #9th (E#) is approached as a lower neighbour from a 3rd (F#) above the same D root on the last beat of m.2, that 3rd in turn being prepared in ms. 1-2 as a 9th in a dominant E chord (V/A) and, before that, as the root of an F# harmony (V/V/E or "bVI"/Bb). The neighbour motion is then completed with E# leading to the root of another F# harmony ("bvi"/Bb) in m.3. The #7th (C#) of the D chord is approached by diatonic half step from below, from a #6th (B#) which is prepared in ms.1-2 as a #5th of the E chords and a #4th of the F# chord. This #7th (C#) in turn prepares what would be a 5th of the F# chord at the end of m.3.

I designate the F# harmony in m.3 as "bVI"/Bb because the chromatic root shift F#-F in ms.3-4 imitates a diatonic one--i.e., "Gb"-F--which functions as "bVI"-V in the approach to the Bb harmony of m.4. The understanding of a truly diatonic root shift here is countered by the presence of other voice-leading connections between components of harmonies in ms.2-3 and those in m.4, connections which are best heard

as diatonic with respect to a root shift F#-F-- between ms.3 and 4: D-...Eb, D-...C#, D-...D, C#-...C#, B#-C#, A-...A, and G#-A; and between ms.2 and 4: E-...F, and "Bb"-...Bb. The "Bb" in ms.1-2 is understood as such in retrospect, i.e., as a diatonic upper neighbour to A and as anticipative of the Bb root in m.4. Most importantly perhaps, the enharmonic adjustment E#-[F#]-F in m.3-4 is clearly understood as such if one hears F#-F as imitating Gb-F. It is primarily by way of this imitative function of the F# harmonies--as "bVI"/bVI/D--in this piece that F# harmonies are drawn back into the realm of a referential D tonic, thereby obscuring, at the surface at least, the drawing of D harmonies into the realm of a referential B tonic as bVI/V. (Note that B is especially significant as referential tonic in ms.24-25 and in the ensuing piece, 'Helle Nacht'. This is an issue I take up in Chapter 7 in my discussion of the background structure of the song cycle as a whole.)

In the immediate absence of any third in the F# chord of m.3, the referential gender of the harmony is left being somewhat equivocal. The 9th (G#) is approached as a lower neighbour to what would be a b3rd (A). The neighbour motion is indeed completed with the G# leading, to the 3rd of an F chord upon the root shift F#("Gb")-F. At a deeper level, however, because the A#("Bb") of the F# major harmony in ms.1-2 ultimately does prepare the root of the Bb chord of m.4, the F#("Gb") harmony of m.3 acquires a major quality. In that the "Bb" of ms.1-2 is understood in retrospect as such its function is equivocal in itself: is it a 3rd in an F# major harmony or a b4th in an F# minor harmony?. This major/minor duality is more prominently exposed in m.8 (Example 20) where there occurs an F# harmony having both a 3rd (A#) and a b3rd (A). The duality facilitates the overlaying in the piece of the keys of F# and D, D major being bVI/F# minor and F#("Gb") major being "bVI"/bVI/D minor--i.e. "bVI"/Bb (as in ms.1-4, ms.8-10, ms.11-15 and ms.17-20)--or V/V/V/V/D--i.e., V/B (as in ms.1-5 and ms.24-25).

In ms.17-18 of 'Nächtliche Scheu', the measures of the recapitulation which correspond to ms.2-3 of the opening, the D harmonies are approached from and withdraw to F# harmonies. The #9th's (E#) of the D harmonies are approached from above, by diatonic half step, from an F# root, and from below by chromatic half step from 7th's (E) in the F# harmonies--prepared in ms.16-16a as the 5th of a dominant A harmony. The E# function is also prepared in ms.16a-17, however, in that, upon the root shift A-F#, the dominant A harmony (V/D minor) functions as a substitute for V/F# [C#-E-E#-G-Gx-B]. That is, much like the Type I A triad in m.8, the Type II A triad [A-C#-F] of ms.16-16a substitutes for a Type I C# triad [C#-E#-Gx]. Thus in ms.16a-17, the b6th (F) of the A chord is a substitute for a leading tone (E#) to the root of the F# chord and as such anticipates the E# function to follow in m.18.

The component A of the Type IV triad in m.18 is prepared indirectly as a root in m.16 and in turn prepares the 3rd of the F harmony in m.19. More immediately, it is approached from below, as in m.2, from G#--in this case a 9th in the preceding F# chord--and from above, from the "3rd" ("Bb") of the F# chord. (Note that, whereas the "Bb" in ms.1-2 is prepared at the end of 'Himmelfahrt' as an A#, the 5th of a D# harmony, the "Bb" in m.17 is prepared as a Bb root in m.15.)

By way of the root progression D-F#("Gb"-F in ms.3-4 the pc-set occurring as the Type IV triad [A-C#-E#] in the D chord recurs in m.4, there transformed into a Type I component [F-A-C#] of the dominant F harmony. Thus there is in ms.2-4 a shift from the Type I E triad of ms.1-2 to what ultimately becomes, by way of this transformation, a Type I F triad. This shift--essentially V#5 to bVI#5 in A--is somewhat more complex than the comparable such shift in ms.2-4 (and ms.29-31) of 'Ideale Landschaft' (Examples 2 (and 5)). Recall that in the introductory chapter I suggested that, in the overall structure of the song cycle, ms.1-8 of 'Nächtliche Scheu' serves (harmonically at least) as a recapitulation of ms.1-7 of 'Ideale Landschaft'. A

significant difference between the two passages is that the presence of D as a referential tonic is more clearly defined in the opening of 'Nächtliche Scheu' than it is in that of the first song, D having emerged more fully as a referential tonic over the courses of 'Am Ufer' and 'Himmelfahrt'.

In contrast to ms.1-2, there is no hint of and E harmony in ms.17-18 (although an E root does materialize in m.20). Instead the pc-set which occurred as a Type I E triad [E-G#-B#] in ms.1-2 is incorporated by the F# harmonies of ms.17-18 as a Group 3 triad (Type VII: [#4-7-9]), a functional equivalent of the Type I E triad. It combines with a Type II triad [F#-"Bb"-D] such that the F# chord incorporates a complete whole-tone hexachord. (In that the "Bb" of m.17 is indeed prepared as such in ms.14-15, "resolves" as such to the 5th of the D harmony and also as such anticipates the root of the Bb harmony in m.20, the Group 1 triad of which it is a part, [F#-"Bb"-D], is really a variant of a Type II: [8-b4-b6].) The pitch-classes in the Type IV triad [E#-A-C#] of m.18 are thus all approached by half step in parallel motion both from above, from components of the Type II F# triad [F#-"Bb"-D], and from below, from components of the Type VII triad in the F# chord [E-G#-B#]. Components of the F# hexachord are, in turn, approached by half step in parallel motion--those of the Type II, from above, and those of the Type VII, from below---from components of the Type II A triad [A-C#-F] of ms.15-16a. Thus, by way of the voice leading to and from the F# harmony of m.17, the pc-set occurring as the Type II A triad (Vb6/D) recurs as part of the D chord in m.18, there transformed into a Type IV--i.e., [A-C#-E]-...-[A-C#-E]. The enharmonic adjustment E#-(F#)-F in ms.18-19 then helps effect a reciprocal transformation such that a functional equivalent of the Type II A triad (Vb6/D), a Type I F triad [F-A-C#] (V#5/bVI/D and/or bVI#5/V/D), comes forth in m.19.

The harmonic progression in the three measures leading up to the beginning of the recapitulation in 'Himmelfahrt', ms.28-30, incorporates seven instances of the Type IV triad, these labelled t, u, v, w, x, y and z, respectively, in Example 14. This passage is essentially centered in B(Cb) major, the tonic B(Cb) harmony then leading, as bVI, to V/Eb in ms.31-32--and, at a deeper level, as V/V/V, to V/V of D in ms.39-41 (discussed in Chapter 7).

The first Type IV instance, instance t in m.28, occurs as part of V/B. Its #9th (Gx) is part of a neighbour pattern embellishing the 3rd (A#) of the F# harmony. In the lower register, Gx is approached indirectly from A# via the root (G#) of vi/B thus making it literally "a raised lower neighbour" to A#. The G# is also prepared, however, as a 9th on beat 2 of m.28 and, ultimately, as a root on beat 1. The neighbour motion is completed in the upper register with the consummation of the double-neighbour approach to A#: B-Gx-A#. At a deeper level the #9th is prepared in m.27, albeit as an A, a #7th in the Bb harmony there (V/Eb or bVI/D), the enharmonic adjustment thus being effected via the voice leadings A-[G#-...-G#]-Gx and A-[A#]-Gx. The #7th (E#) is prepared, likewise in m.27, as the 5th (F) of the Bb harmony, via E which functions first as the b6th of a Type II G# triad and then as a 7th on beat 2 of m.28; the voice leading F-[E-D#-E]-E# effects the chromatic adjustment. The E# in m.28 leads in turn to the 5th (F#) of a B harmony in m.29, via a #4th (E#). The 5th (C#) in instance t is prepared as such on beat 2 where it is approached from the 5th (D#) and the 3rd (B#) of the G# harmony on the first beat of m.28--that 3rd being, again, a component of the Type II G# triad. The components of the Type IV [C#-E#-Gx] are thus all approached in parallel motion by half step from below, from pitch-classes which function on beat 1 as components of the Type II G# triad [B#-E-G#].

In each of instances u, w and z--all components of C harmonies (bII/B)--, the #9th (D#) is approached from what functions (in the case of u) or would function (in

the case of w and z) as a 3rd (E). In each case, however, the neighbour motion is not immediately completed; instead the #9th and the #7th (B) combine to anticipate an ensuing B chord by preparing its 3rd and its root respectively.

Similarly, in instance x the #7th (C#) and the #9th (E#) anticipate the root shift from D to C# (bVI/V-V/V in B); and in instance y the #7th (C) and the #9th (E) anticipate the root shift from C#(Db to C (bII-I in C). In the latter instance the #9th (E) ultimately anticipates the 7th of the F# harmony in m.31 such that the voice leading E-D# in m.31 imitates canonically that at the end of m.30.

In instance y the #7th (A#) and the #9th (Cx) are lower neighbours to the root and 3rd respectively of a B harmony. The #9th (Cx) is approached from the #9th (D#) in instance u and leads to that in instance w via the root of an E chord (iv in B). The #7th (A#) is approached from a #7th (B) in instance u and leads to the fifth (B) of the E chord which in turn prepares a #7th in instance w.

Consecutive Type IV triads, then, may occur when, upon a root movement a diatonic half step down, not only a 5th but also a #7th and #9th in the first harmony lead down a diatonic half step parallel to the root movement; the #7th and #9th thus lead to the lower neighbours of the root and 3rd they anticipate. Such is the case with the succession u-v occurring over the root shift C-B and then with the succession x-y-z occurring over the root shifts D-C#(Db-C. (I discuss the progression in ms.29-31 again in the next chapter when I consider the Group 3 type triad [F#-A#-Cx] (Type VII) immediately following instance w. Note that this triad is functionally equivalent to both the instance y triad and the Type I F# triad in m.31.)

In that ms.28-31 is centred in B and is framed by two Bb harmonies (m.27 and m.32), the root progression in ms.27-32 is essentially comprises the neighbour motion Bb-B-Bb--i.e., V-bVI-V in Eb (or bVI-V/V/V-bVI in D).

Type V

A Type V triad, [b3-5-b8], is one of the more uncommon Kind U types. Where it occurs, a Type V will typically (and perhaps invariably) be comprised by a secondary dominant VII harmony--i.e., VII/V. A true dominant VII chord is distinct from a dominant V chord which resolves deceptively to bVI and which is thus "VII" to a substitute for I. A true VII chord is, rather, a variant of V#5 in the same way as is a corresponding bII(#6) or "#II"(b4bb8). Its root and major 3rd are the counterparts of the 3rd and #5th, respectively, in the corresponding V#5 or of the #6th and x8ve, respectively, in a corresponding bII#6x8. (I say more about the VII chord in the next chapter.)

A Type V triad is formed in a VII/V chord if its b8ve and b3rd components are understood as such by virtue of a preparation as a 7th and a 9th, respectively, in the V chord from which it is approached; its component 5th may be prepared as a #4th in the V chord (Fig.9a). A VII chord which comprises a Type V will thus have two thirds (3 and b3). (The root of a VII chord is understood as such partly by virtue of the sound of the major third formed between its root and 3rd.) As illustrated in Figure 9a, a Type V triad may, then, be prepared as a functionally equivalent Group 3 component (Type VII).

Other functional equivalents of a Type V component of a VII/V harmony would be a Type II component of the corresponding Vb6/ii (Fig.9b), the Group 3 type component (Type IX) of the corresponding bII#4#69/ii (Fig.9c), and the Type I and Type IV components of the corresponding V#5/IV/IV and IV#7#9/IV, respectively, i.e., the corresponding V/IV would function as a V/V (Fig.9d).

Note that the corresponding IV#7#9/IV which comprises the functionally equivalent Type IV could also function as a corresponding bVI#7#9/ii (Fig.9e). Thus functionally equivalent Type V and Type IV triads could serve as major pivotal

Thus far I know of only one instance in the 'Dehmel Songs' of a Type V triad [5-b8-b3]. This occurs in 'Ideale Landschaft' on the first beat of m.20 as part of an A# harmony (Example 3). It is important in understanding the harmonic progression through ms.17-20 to distinguish between the function of this A# harmony and that of the Bb harmony on the third beat of m.18. The Bb chord is bII#6/A. Its #7th (A) is prepared as a root on beat 2 of m.18. The ensuing root shift Bb-B on the down beat of m.19 involves two chromatic adjustments: Bb-B and D-D# such that in m.19 A becomes a 7th in a dominant B harmony (V7/E). In m.20, however, the root and 3rd (Cx) of the A# harmony are lower neighbours to the root and 3rd respectively of the preceding and succeeding B harmonies, the A# chord thus being a dominant VII of B.

The component A of the A# chord, prepared as such as the 7th of the B harmony and ultimately as a root in m.18, is thus a b8ve. The b8ve combines with a b3rd (C#)--prepared as a 9th in m.19, as a 3rd in m.18 and ultimately as a root in m.17--and a 5th (E#)--prepared as a #4th in m.19 and ultimately as a 3rd in m.17--to form the Type V triad [A-C#-E#]. Each of the component pitch-classes of this Type V, then, is prepared as a component of a functionally equivalent Group 3 type component (Type VI) of the preceding B harmony. (I discuss this Type VI triad and the B harmony as a whole in more detail in the first part of the next chapter.)

The A# harmony of m.20, while understood most immediately as VII/V/E, is part of a middleground neighbour pattern, Bb-B(Cb)-Bb-B(Cb) which spans ms.16-24: Bb-B(Cb) in ms.16-19; B(Cb)-Bb ms.19-22; and Bb-B in ms.22-24. The background shift Bb-B(Cb) comprised by the entire passage recurs in retrograde in 'Am Ufer' in the reciprocal background shift B(Cb)-Bb comprised by the passage spanning ms.6-14 and in the foreground pattern in ms.17-20. As discussed above (p.51 and pp.57-58), the latter two shifts while understood in the context of 'Am Ufer' as V/V - bII in A, imitate the progression bVI-V in Eb in anticipation of the emergence of that key in 'Himmelfahrt'.

At a deep level then the root progression Bb-B-A#-B-...-B-A# in ms.18-22 of 'Ideale Landschaft' is part of a neighbour pattern Bb-Cb-Bb (V-bVI-V in Eb) comprised by the passage spanning m.16 of 'Ideale Landschaft' - m.20 of 'Am Ufer', and as such helps concretize an anticipation of a referential Eb tonic in 'Himmelfahrt' and thus the background neighbour motion E-D#(Eb) comprised by the progression through the first three songs. At the deepest level, however, the B harmonies of ms.19-26 of 'Ideale Landschaft' are V/V/V/D thus making the A# harmony of m.20 VII/V/V/V/D. Note too that the root progression A-Bb-B in ms.18-19 can be understood to anticipate a referential D tonic--i.e. as V-bVI-V/V--in the same way as does the reciprocal of this pattern, the middleground progression B-Bb-A in ms.6-15 of 'Am Ufer'. The recurrence in m.6 and in m.11 of 'Am Ufer' of the B harmony of m.19 of 'Ideale Landschaft' brings its Group 3 component [C#-E#-A]--a functional equivalent of the Type V in the A# chord--into close proximity with another functional equivalent of these two, the Type II C# triad (Vb6/F#) in m.8. The B harmony recurs again in m.5 of 'Nächtliche Scheu'; in ms.3-8 of that song four functional equivalents of the Type V are brought together: the Type IV D triad in m.3, the Type VII of the B harmony in m.5, the Type II C# triad in ms.5-6 and the Type I A triad in m.8. (Note that the B(Cb) harmony in m.5 is approached via the diatonic root shift A#-B (Bb-Cb)--in this case I-bII in Bb (or V-bVI in Eb), and ultimately a diatonic version of the chromatic root shift bVI-V/V in D.) Each of the harmonies in which these triads occurs can be understood to relate to a D tonic and/or an F# tonic, e.g. D#9#7 is I/D and bVI/F#. In that the Type V triad in m.20 of 'Ideale Landschaft' is part of a harmony which relates ultimately to a D tonic--both as VII/V/V/V and as a substitute for bVI/D (i.e., a "Bb" chord)--while at the same time being part of a variant of an F# chord--i.e., a variant of V/V/E (and of ii/E)--, its function situates it in a delicately balanced mediatory position between F# and D, balanced there as perfectly at least as is the Type IV D triad in m.3 (and

ms.17-18) of 'Nächtliche Scheu' and perhaps more so than are these other functional equivalents. Its occurrence then holds intimations of the ensuing emergence of F# and D as referential tonics in 'Am Ufer' and of the overlayings of those two keys in 'Nächtliche Scheu'. Note that the VII chord of which it is a part, in that it comprises both an 8 and a b8 (A# and A) which are counterparts of the thirds of an F# major triad and an F# minor triad, respectively, alludes in fact to a F# major-minor duality which is realized more fully in 'Nächtliche Scheu', as discussed above. Such a duality is intimated too in ms.7-10 of 'Am Ufer' in the chromatic adjustments A#-A (ms.7-8) and A-[G#-Bb-Gx]-A# (ms.8-10). I take up in detail the issue of the overlaying of the keys of F# and D in the song cycle as a whole in Chapter 7.

Chapter 5: Group 3 Triad-types

The Group 3 triad-types with which we shall be concerned will be all those types of Kind U which, taking a root as '0', incorporate the chromatic pc-set [2-6-10]. Whereas a Group 1 triad will invariably incorporate a root and, almost invariably, a 3rd, and a Group 2 triad will invariably incorporate a 5th and, almost invariably, a #7th, in a Group 3 triad any of the component pitch-classes can, depending on the voice-leading context in which the triad occurs, function as any one of two or three different scale degrees.²¹ In the 'Dehmel Songs' the pitch-class standing two semitones above a root may function as a x8ve or a 9th, or occasionally even as a bb3rd; that standing a tritone above a root may function as a #4th or a b5th; and that standing two semitones below a root may function as a #6th or a 7th, or occasionally even as a bb8ve. Given these possible scale-degree functions within the triad there are six distinct Group 3 types of Kind U conceivable, and instances of five of these do indeed occur in the 'Dehmel Songs'. Most of the Group 3 triads in the songs are instances of Type VI--[7-9-#4]--or of Type VII--[#6-x8-#4]; but there are also instances of Type VIII--[b5-7-9]--, Type IX--[#4-#6-9]--, Type X--[7-bb3-b5]--and Type XI--[bb8-bb3-b5].

Certain Group 3 triads, usually a Type VI or a Type VII, may occur in combination with a Group I triad to form a complete whole-tone-hexachordal harmony--e.g. [8-3-b6-7-9-#4] or [8-3-#5-#6-x8-#4]. Types IX and X will typically combine with

²¹It may be said that a Group I triad always incorporates a 3rd, in that in the case of a harmony comprising a variant of Type II--[8-b4("3")-b6]--, that harmony acquires a major quality by way of the presence of the b4th component and hence acquires a "3rd": distinct from the contrapuntal function of the interval 8-b4 as a diminished 4th is the sound of that interval as a major 3rd which helps concretize the function of the root as such. Much the same is true of a variant of the Type IV, [#7-#9-x4("5")], which acquires a "5th" by virtue of the sounding of the interval between the root and the x4th; distinct from the contrapuntal function of that interval as a doubly-augmented 4th is the sound of that interval as a perfect 5th which helps concretize the function of the root as such.

a root and a 3rd (or a b4th) to form a whole-tone pentachord--i.e., [8-3-7-bb3-b5] or [8-b4("3")-bb8-bb3-b5].

Type VI

The Type VI triad [7-9-#4] occurs most typically as part of a dominant ninth harmony which incorporates a #4th, a lower auxiliary to the fifth--i.e., [8-3-7-9-#4] (Fig.10a). One of the whole-tone hexachordal harmonies results when such a chord also incorporates a #5th or a b6th, and hence a Type I or Type II triad--i.e., [8-3-#5-7-9-#4] or [8-3-b6-7-9-#4] (Figs.10b and c).

Figure 10. Typical sorts of voice-leading contexts in which a Type VI might occur.

Figure 10 consists of three musical examples, labeled a), b), and c), each showing a voice-leading context for a Type VI triad. Each example is presented as a two-staff musical score (treble and bass clef) with a corresponding chord diagram below it. The chord diagrams use numbers 1-7 to represent scale degrees and letters to represent chord qualities. Example (a) shows a progression from E:ii to V to I. Example (b) shows a progression from E:ii to V to I. Example (c) shows a progression from E:i to V to i. The chord diagrams illustrate the voice-leading paths between the chords, with lines connecting the scale degrees of one chord to those of the next.

In the 'Dehmel Songs' the triad [C#-E#-A] occurs several times as the Type VI component of a whole-tone-hexachordal dominant B chord. The B harmony in m.19 of 'Ideale Landschaft' (Example 4), for instance, upon the raising of its fourth (E-E#) on beat 3, comes to incorporate the Type VI triad [A-C#-E#]. Then, upon the raising of its fifth (F#-Fx) on the last eighth of m.19, it comes also to incorporate a Type I

triad--[B-D#-Fx]-- and, thus, a complete whole-tone hexachord--i.e., [B-D#-Fx-A-C#-E#] ([8-3-#5-7-9-#4]).

As discussed in Chapter 4 (p.66), the 7th (A) of this Type VI is prepared in m.18 as a #7th (in bII#7/A) and ultimately as a root; its 9th (C#), approached most immediately from a #8ve (B#), is prepared as a 3rd in m.18 and ultimately as a root in m.17; and its #4th (E#) is ultimately prepared as a 3rd in m.17. The triad as a whole then prepares the Type V component of the A# harmony in the subsequent measure.

The shift to this B harmony on the downbeat of m.19 marks the beginning of a long prolongation of the dominant in this piece (V/E), a prolongation which finally ends with the arrival of an E-root harmony (V/IV) in ms.28-29 (Example 5). Note that the set occurring as a Type VI and then as a Type V in ms.18-19 recurs in m.28 over an E root as [A-C#-F], there transformed into a Type XII (a Group 4 triad). (See Chapter 6, pp.100-112.)

In m.6 of 'Am Ufer' (Examples 7-8), the triad [C#-E#-A] functions once again as the Type VI component of a whole-tone-hexachordal dominant harmony (V/V/A or V/V/V/D). Here its #4th (E#) is approached via register transfer from the E root in m.5. That E#, in turn, leads to the root and to the 7th (E) of an F# harmony in m.7, but it also anticipates the root of the E# harmony (VII/F#) in m.7. The 7th (A) in m.6 is approached from below from the 3rd (G#) of the E harmony of m.5 but is prepared indirectly as a passing 4th in m.5 and ultimately as the pedal A in ms.2-4. The 9th (C#) is approached as an upper neighbour to B but also, via register transfer, from the 7th (D) in m.5. It is embellished in m.6 with a diatonic lower neighbour B# (#8ve) and it prepares the 5th of the F# harmonies in m.7. The entire triad subsequently recurs in m.8 as the functionally equivalent Type II component of a C# harmony (V/i/F#). It is partly by way of the association between this Type VI and its functional equivalent, the Type II in m.8, that the effect of recoiling from a B root through F# to a C# root

is accomplished in ms.6-8--i.e., I-V-V/"v" in B or IV-I-V/i in F#. That is, the Type VI in m.6 anticipates the dominant (Vb6) of F# minor in m.8.

The same Type VI then recurs a part of a whole-tone hexachordal B chord on beat 2 of m.11 in the same song (Examples 8-9). The initial focus in m.10 on the Type II component of the B chord and the withholding of the Type VI (its A in particular) until m.11 facilitates the enharmonic adjustment Gx-A in ms.10-12 such that the set occurring as the Type I C# triad [C#-E#-Gx] can recur as part of the B harmony but with a new spelling--i.e., [C#-E#-A]. The Gx leads to a #7th (A#) in the B chord which in turn resolves to the B root. The pitch-classes of the Type VI are then approached by step from those of the Type II component of the B harmony. The 9th (C#) and the #4th (E#) of the Type VI prepare what would be the root and the 3rd, respectively, of the C#(Db) harmony (bVI/V/Bb) on beat 3 of m.11 end--the latter two actually sounding as a 4th and a b6th ("#5th") over a C root (V/V/Bb) at the end of that measure. The 7th (A) leads most immediately to the "#5th" (G#) of the C chord, but it also prepares, via some enharmonic adjustment--A-G#[Ab("G#")]-A--, the 3rd of the F chord in m.12--V9/Bb (no root). That 3rd functions most immediately as a leading tone to the root of the Bb harmony (bII#6/A) of ms.12-13, but it also anticipates the root of the A chord in m.13 and thus ultimately that of the A minor harmony in m.15. Similarly, the 9th (C#) of the Type VI anticipates the 3rd of the A harmony in m.12. The occurrence of the Type VI in m.11 is thus an initiative of a return to an A tonic in ms.12-15.

At an extreme background level the B harmonies of 'Ideale Landschaft' and 'Am Ufer' function as V/V/V with respect to the D tonic which materializes in 'Himmelfahrt' and 'Nächtliche Scheu'. In this light the Type VI triads discussed thus far can be understood to derive from D major in that they anticipate a functionally

equivalent component of a dominant to D--i.e., either a Type I component of V/D or a Type VII component of bII of D (see below, pp.75-83).

The Type VI component of a dominant B harmony thus potentially reaches one way along a cycle of fifths in anticipation of D major--i.e., as part of V/V/V/D, anticipating, for example, V#5/D (Fig.11a-i)--, or the other way, in anticipation of (or recalling) F# minor--i.e, as part of IV/F# minor--, anticipating, for example, Vb6/F# minor (Fig.11b-ii), as is the case in ms.6-8 of 'Am Ufer'.

The referential cycle in which a Type VI is involved could, in fact, be circular. That is, it could be a closed cycle of key relationships, one which may be thought of most concisely as a cycle of bVI functions: each of three referential tonic harmonies whose roots are a major third apart--e.g. D, F#("Gb") and Bb--is bVI or bVI/bVI to another of the three and, thus, bVI/bVI/bVI of itself--e.g. D is bVI/bVI/bVI/D.

(Compare the discussion of the Type V triad, pp.64-68.)

Thus, for example, if a D chord were to function as bVI/F#, then the Type VI [C#-E#-A], as part of V/V/V/D, could anticipate Vb6/F# via a Type IV component--[5-#7-#9]--of such a D harmony (Fig.11a,i-ii); or, alternatively, if an F#("Gb") chord were to function as bvi of a Bb chord which in turn is bVI/D, then the Type VI, as part of IV/F#(Gb) could prepare a Type III component--[5-#7-b3]--of such an F#(Gb) chord, the Type III, in turn, via some enharmonic adjustment, preparing V#5/Bb and ultimately Vb6/D (Fig.11b,i-ii). In summary, then, the Type VI component of a B(Cb) harmony may anticipate or (recall) the dominants of F#("Gb"), Bb, and/or D, with the B harmony thus functioning in one or more of the following ways:

V/V/V/D major (Fig.11a,i)

IV/"bvi"/Bb and perhaps ultimately IV/"bvi"/bVI/D minor (Fig.11b,i-ii)

IV/F# minor (Fig.11b,i)

V/V/V/bVI/F# minor (Fig.11a,i-ii)

Figure 11. Contexts in which a Type VI could be understood to occur and in which it could be understood as part of an overlaying of references to two or three tonics a major 3rd apart.

a) i) ii)

b) i) ii)

Largely by means of its comprising a Type VI triad, then, a harmony may serve a pivotal function in an overlaying of allusions to two or three referential tonics a major third apart. An extreme example of this is the case of the whole-tone-hexachordal B(Cb) harmony (V/V/V/D, IV/F# or bII/Bb) occurring in m.5 of 'Nächtliche Scheu' (Example 18). This harmony's Type VI component occurs on beat 1 of m.5 amidst an overlaying of references in ms.1-8 (Examples 18-19) to the keys of F#("Gb"), Bb and D. It recalls the functionally equivalent Type IV component of the D harmony in m.3 (I/D or bVI/F#)--the connection between these two triads being mediated by way of their mutual connections with the Type I F triad [F-A-C#] (V#5/Bb) on beat 1 of m.4--and it anticipates two functional equivalents, the Type II C# triad (Vb6/F#) of ms.5-6 and the Type I A triad (V#5/D) of m.8.

The 7th (A) of this Type VI is prepared as such in m.4 where it is approached directly from below by diminished third, from a #5th (Fx), and indirectly from above,

from the root of a Bb(A#) chord (bII/A). Its 9th (C#) is approached as an upper neighbour to the root; and its #4th, as a lower neighbour to the 5th (F#). The 9th and the #4th, in turn, lead most immediately to the root (B) and the 3rd (D#), respectively.

Another Type VI triad follows almost immediately at the end of m.5 as part of a pattern of passing motions in an arpeggiation of the Type II C# triad such that the C# harmony too incorporates the same whole-tone hexachord as does the B harmony. Thus, upon the deceptive root shift B-C# in m.5 (V-VI(V/ii) in E or IV-V in F#), the two triads--[B-D#-Fx] and [C#-E#-A]--exchange functions: the Group 1 and Group 3 components of the B harmony become Group 3 and Group 1 components, respectively, of the C# harmony.

This second Type VI--[B-D#-Fx]--is really a group of suspensions recalling the Type I component of the B chord. Its #4th (Fx) resolves, by way of A, to the 5th (G#) at the end of m.6. Its 9th (D#) prepares the suspended #8ve of the D chord of m.7 which in turn leads to the 7th (D) and the root of the subsequent E harmony. And the 7th (B) ultimately prepares the 5th of that same E chord.

The whole-tone hexachord [A-B-C#-D#-E#-Fx] in ms.5-6 thus functions as a nexus between two simpler harmonies: it accommodates a dovetailing of the B chord [B-D#-(F#)-Fx-A] at the end of m.4 with the C# chord [C#-(D#)-E#-G#-(B)] at the end of m.6. The 9th and #4th of the Type VI component in each harmony--i.e. [C#-E#] and [D#-Fx]--serve primarily then as a pair of auxiliaries which anticipate, in the case of the first harmony, or recall, in the case of the second, more skeletal components of the other harmony.

Type VII

The Type VII triad [#4-#6-x8] occurs typically as a component of a dominant bII chord or dominant bVI (bII/V) chord (Fig.12a). I chose the Type VII component of a

dominant Eb harmony (bII/D) for the examples in Figures 12 and 13 because I shall be considering instances in 'Himmelfahrt' of precisely this Type VII. As will become clear, there are significant structural implications in the songs arising from the connection between the functions of this Type VII and those of some of its functional equivalents discussed above--e.g. of the Type VI component of a B harmony (just discussed) and the Type II C# triad.

The Type VII is the counterpart of a functionally equivalent Type I component in the corresponding dominant V chord (Fig.12b). Its #4th prepares a 5th, and its #6th and x8ve reach, as leading tones, towards a root and 3rd, respectively, in the corresponding I. The perceiving of such a bII as such rather than as the corresponding V chord will tend to be conditioned largely by the registral placement of its root relative to that of its #4th: a #4th will typically stand above the lowest instance of the root (as in Figs.12a and c), whereas, in the corresponding V chord, if it were to incorporate a b5th (the counterpart of the root of the bII), the lowest instance of the root (the counterpart of the #4th in a bII) would typically stand below a b5th (as in Figs.12d and e).

Figure 12. The Type VII and its functionally equivalent Type I.

a) b) c) d) e)

D: bII - I D: V - I D: bII - I D: V - I D: V - I

Given what has been said about the functions of the #4th and the #6th in a dominant bII, it will be largely self evident, from the examples in Figure 13, what sorts of factors will condition the perceiving of these two components as such. Less obvious, however, is how, by virtue of the manner of approach to a Type VII, its x8ve comes to be heard as such (rather than as, for instance, a 9th). The x8ve is the counterpart of the #5th in the functionally equivalent Type I. As may sometimes be the case with the perceiving of the #5th as such, the perceiving of a x8ve as such may be.

Figure 13. Sorts of contexts in which a Type VII could be understood as such.

a) b) c) d)

e) f) g) h)

Diagrammatic representations of scale degrees and functional relationships (e.g., 3, 8, 5, #4, x8, #6, #4) are provided for each example, illustrating the context in which a Type VII chord can be perceived.

conditioned partly by an approach by diatonic half step from above (Figs.13a-e). Like the #5th, however, it may, at the same time, also be approached by chromatic half step from below (Figs.13f and g). Or, again like the #5th, the x8ve may be prepared as such in a preceding harmony (Fig.13h).

Eb harmonies with Type VII components occur as dominants of D in the opening section of 'Himmelfahrt'--on the last eighth of m.9 (Example 12)--and in the corresponding part of the recapitulation--on the last eighths of ms.35 and 37 (Example 16).

The Type VII [C#-E#-(A)] in m.9 is ultimately prepared, via the mediating components of the preceding D chord, as a Type II component of a C#(Db) chord (V/F#(Gb) minor) in ms.7-8: its implied #4th (A) is prepared as a 5th of the D chord and as a b6th of the C# harmony, and its #6th (C#) and x8ve (E#) are prepared, via the root and the 3rd of the D chord, as the root and 3rd, respectively, of the C# chord.

The Eb harmony, in turn, resolves, as a dominant bII, to a D chord on the down beat of m.10. The #4th (A) prepares a 5th; the x8ve (E#) prepares a #9th which itself leads to a 9th (F#) and a root of a subsequent dominant E chord (V/V/D); and the #6th (C#) prepares, indirectly via the root of the D chord, the #6th of another dominant Eb chord at the end of m.10.

Both the C# (Db) harmony at the end of m.8 and the Eb chord at the end of m.9 incorporate the same whole-tone hexachord. As already suggested, the Group 1 (Type II) component of the former becomes the functionally equivalent (albeit enharmonically respelled) Group 3 (Type VII) component of the latter. As regards the other half of the hexachord, however, the pivotal D chord mediates some enharmonic adjustment such that the Group 3 (Type VI) component [B-D#-Fx] of the C# chord is transformed into the Group 1 (Type I) component [Eb-G-B] of the Eb chord. (Compare the exchange

here of the Group 1 and Group 2 functions of the two subsets of the hexachord with the similar such pattern, discussed above (pp.74-75), in ms.5-6 of 'Nächtliche Scheu'. Recall that in the latter exchange there is no mediatory harmony and no transformation involved--i.e., no chromatic adjustment.)

One significant function of the shift from a C# to an Eb hexachord is to solidify the tonicization of D effected tenuously by the deceptive approach to the D chord in m.10 from the C# chord (V-bVI in F# minor). The bVI function of D is thus obscured such that the progression can find its way instead to a C tonic in ms.10-13, the root progression Eb-D being ultimately, then, bVI/V - V/V with respect to the ensuing C tonic.

More decisive in helping to effect the shift from a D to a C tonic, however, is the voice leading which brings about the transformation of the Type VII [A-C#-E#] component of the Eb chord in m.9 into the Type I F triad [F-A-C#] of m.11. The F harmony of which the latter is a part serves a very prominent pivotal function in this shift: it is approached deceptively in D as bVI/V from V/V and left as iv/C. I say that it is approached from V/V/D because I hear the occurrences of its G# and B as reaching back to the 5th and 3rd of the dominant E chord in m.10, thereby conditioning the perception of a "re-resolution" of that E chord to the F chord. The initial, false resolution to an Eb chord (V/V-bII in D) helps to preserve an emphasis of a D tonic and, thus, to condition the understanding of the shift to an F chord as a deceptive shift (V/V-bVI/V) in D. The G# of the F chord is thus prepared in the upper register as a 3rd in the E chord and then adjusted enharmonically via the half step A-Ab in the middle register such that it can be left as Ab (i.e., as a b3rd in iv/C).

The inclusion of C#, F# and A# in the G and C harmonies of ms.11-13 prepares the ultimate functions of those chords as bVI/B and bII/B, respectively, and thus anticipates the emergence of V/B at the end of m.13 and the recurrence in m.14 of the

tonic B harmony left behind in ms.6-7. (See the discussion in pp.86-87 of the Type IX triad where I consider further the overlaying here of the keys of C and B.) The transformation in ms.8-9 of the C# hexachord into an Eb hexachord thus initiates an elaborate process of transition from the dominant of F# minor in ms.7-8 to the F# major harmony (V/B) at the end of m.13. This extended transitional process is essentially an opening up of a more concise, but similarly strange, pattern in ms.3-5 (Example 11).

In ms.34-39 in the recapitulation, in the transition from the dominant C#(Db) harmony of ms.34-35 to the dominant F# harmony at the end of m.39, departure from the referential key areas of F# and B is much less extreme than that in the parallel passage--ms.7-14--just discussed. While in ms.8-9 the transformation of the whole-tone C# hexachord into a dominant bII hexachord in D major is pivotal in a definitive turn away from F#, the parallel such pattern in ms.38-39 initiates only a parenthetical tonicization of D amidst a prevailing prolongation in ms.34-38 of the dominant C# harmony (V/i in F#). (See the discussions in Chapter 3 concerning the Type II C# triad in m.38--pp.47-48--and the transformation of that Type II into the Type I C# triad of m.39--p.52.) The Type VII component of the Eb hexachord, in having been prepared as a Type II C# triad, helps facilitate a smooth modulation from F# minor to D major. However, upon its recurrence at the end of m.37 as a latent component of the Eb chord (its #4th (A) being only implied), the Type VII, in turn, prepares the return in m.38 of the Type II C# triad. As discussed above (p.47), the return of the C# harmony is also anticipated in m.37 by the C# chord which is interpolated into the approach to the E harmony from the D chord. Such a C# chord occurs neither in an early version of this passage (Example 17), nor in m.10, the counterpart of m.37. Webern, thus, apparently added the root shift D-C# (bVI-V in F#) in m.37 partly to help emphasize

the sense in this passage of the bVI function of the D harmony, i.e., the prevailing sense of F# as a referential tonic.

One very significant function of the parenthetical tonicization of D in ms.35-37 through the use of the dominant Eb chord is to anticipate the overlaying of D major and Eb major in the approach to the final cadence of the song in ms.39-42 (discussed in Chapter 7). Of course, all three of these juxtapositions of D and Eb--i.e., in ms.9-10, ms.36-37 and ms.39-42--derive from the progression in the opening three measures of the song (Example 11). Note, for instance, that the root progressions C#-D-Eb in ms.8-9 and ms.35-36 mirror the root progression Eb-D-C# in ms.1-4.

From a broader perspective still, the overlaying of the key of F# with the key of D in ms.34-38 anticipates the similar such juxtapositions of these two keys in the next song, 'Nächtliche Scheu'. (Examples 19-21a). The triad [C#-E#-A], in various functionally equivalent forms, plays a prominent role in both pieces in effecting such overlayings: it occurs in the passages from 'Himmelfahrt' as a Type VII and a Type II, and then in 'Nächtliche Scheu', in ms.1-8 (Examples 19-20), for instance, as a Type IV, a Type VI, Type II and finally a Type I.

Another Type VII, this one a component of a dominant bII C harmony (bII/B) in m.29 of 'Himmelfahrt', plays a significant role in anticipating the functionally equivalent Type I component of the F# harmony (V#5/B) which breaks forth at the emotional climax of the song--and, indeed, of the song cycle as a whole--on beat 1 of m.31 (Examples 15 and 15a). Example 15a shows in more detail than does Example 15 the harmonic progression in the latter part of m.29. It shows, in particular, that the Type VII [F#-A#-Cx] occurs, very briefly, twice in m.29, first on beat 3 and then at the very end of the measure. As discussed above in connection with the Type IV triads in this passage (pp.62-63), ms.28-31 is essentially in B major, the tonic B(Cb) harmony of m.31 functioning ultimately as bVI/Eb.

The resolution in m.31 of a dominant of B to a B harmony is the last and most definitive of four such patterns in ms.28-31: it is anticipated three times in m.29 in the approaches to fleeting glimpses of tonic B harmonies on the second eighth of beat 1, on the second triplet eighth of beat 5 and on the downbeat of m.30. In each of these first three patterns the very momentary suggestion of a B-root chord gives way immediately to another approach to an ensuing B chord, in each of the first two cases by way of a withdrawal to an E minor harmony (iv/B), and in the third case by way of a withdrawal to a dominant F# chord. The Type VII triads occur then as components of the penultimate dominant harmonies in the second and third of these approaches, as do the functionally equivalent Type I F# triads in the first and the last (in m.31).

The Type VII triads in m.29 are each approached (as is also the Type I in m.31) from a Type IV component of a C harmony immediately preceding. As discussed above (pp.62-63), the #7th (B) and #9th (D#) in each type IV ultimately prepares the root and 3rd, respectively, of a B harmony. The #6th (A#) and the x8ve (Cx) of each Type VII are thus approached as diatonic lower neighbours to B and D#, respectively, thereby emphasizing the dominant function of the C harmony of which each Type VII is a part. Upon the root shift C-B on the second triplet eighth of beat 5 in m.29, what was the first of the Type VII's becomes a Type IV component of a B chord before giving way to the components of an E minor triad. There is thus no literal occurrence of a 3rd (D#) above this B root. Resolution of the harmony containing the second Type VII is more complete, but its #6th (A#) is nevertheless retained as a #7th in the upper register above the subsequent B root such that both the root and 3rd of the F# chord in the second half of beat 1 in m.30 are ultimately prepared as components of the Type VII.

It is partly by means of these peculiar withdrawals from the Type VII triads, then, that a definitive resolution to a B-root harmony is withheld until the end of

m.31. The B(Cb) chord of m.31 is itself, however, not a simple tonic harmony. Incorporating, as it does, both a Type I B(Cb) triad--[B-D#-Fx] ([Cb-Eb-G])--and an implied #6th--Gx(A) (prepared as a #9th in the preceding F# harmony)--, it is rather the main pivotal harmony in the turn from B(Cb) major to Eb major. Functioning both as I/B(Cb) (or V/IV/B) and as bVI/Eb, it mediates the transformation of the triad [F#-A#-Cx] ([Gb-Bb-D]) of ms.29-31--i.e., that occurring as a Type VII, a Type IV and a Type I--into the succeeding Type I Bb triad [Bb-D-Fx] (V#5/Eb) of m.32.

Type VIII

The Type VIII triad [b5-7-9] occurs as part of a dominant V chord (Fig.14a). It is the counterpart of the Type I component of the corresponding dominant bII (Fig.14b). The perceiving of such as V chord as such rather than as the corresponding bII will be conditioned largely by the placement registrally of its root relative to that of its b5th (the counterpart of the root of bII): in a V chord an instance of the root will stand registrally lower than the b5th (as in Fig.14a), whereas in a bII the lowest instance of the #4th will stand registrally above the root (as in Fig.14b).

A harmony with a Type VIII component will typically function as V/V such that, at some level, its 7th and 9th prepare (and/or are prepared by) the root and 3rd of the referential I harmony, and its b5th functions as an upper neighbour to the 5th of I (Fig.14c). As this upper neighbour to the 5th of I derives from the key of the subdominant minor of I, in a context in which a Type VIII functions as part of V/V there may be a iv harmony involved--e.g. the b5th of V/V might prepare and/or be prepared as a b3rd of iv (Fig.14d).

A Type VIII triad may combine with a Group I triad (usually a Type I) to form a complete whole-tone-hexachordal dominant (Fig.13e). Such a V chord has its counterpart in the whole-tone-hexachordal version of the corresponding bII (Fig.14f).

The Group 1 component of the V thus corresponds to the Group 3 component of the bII, and its Group 3 component, to the Group 1 triad in the bII.

Figure 14. A comparison of the Type VIII and it functionally equivalent Type I.

a) b) c) d)

8 5 3 8 5 3
A: I - V - I

9 5 3 9 5 3
A: I - bII - I

5 3 9 5 3 9
D: I - V/V - V - I

b3 8 7 (5) 8 5 3
D: IV - V/V - V - I
G: (i) - - - - - V

e) f)

8 5 3 8 5 3
A: I - V - I

9 5 3 9 5 3
A: I - bII - I

A whole-tone-hexachordal dominant E harmony (V/V/D) with a Type VIII as its Group 3 component [Bb-D-F#] occurs the second half of m.22 in 'Nächtliche Scheu' (Example 23). It is approached from the corresponding whole-tone-hexachordal dominant bII harmony, a Bb chord (bVI/D) which begins on beat 2 of m.31. The root shift Bb-E is effected largely by way of the occurrence of E in the bass--i.e., below the lowest

Bb--on beat 3 of m.22. The Type I component [E-G#-B#] of the E chord is thus prepared as a Type VII component of the Bb chord. The Type VIII triad in the E harmony is prepared as the Type I component of the Bb chord which is, in turn, prepared as a Type III component of a G chord (iv/D) on beat 1 of m.21. (Note in particular that Bb in ms.21-22 is introduced as b3 of the G chord.) The root and 3rd of the Bb chord are, however, indirectly prepared as such on beat 1 of m.20, while the root and 3rd of the E chord are indirectly prepared as such in beats 3-4 of m.20. The E harmony of m.22 gives way most immediately to a dominant A chord--Vb6b9/D (no root)--which is recalled in beats 2-3 of m.23. The root of the E chord the prepares indirectly the 5th of the A chord in m.23; its b5th (Bb) prepares a b9th in the A chord(s); and its 7th (D) and 9th (F#) prepare the root and 3rd, respectively, of the D major harmony in m.24 (hence the perceiving of the underlying function of F in m.22 as a lower neighbour to F#--i.e., as "E#").

Type IX

The Type IX triad--[#4-#6-9]--occurs typically, like the Type VII--[#4-#6-x8]--, as a component of a bII dominant harmony. But, whereas the Type VII is part of a dominant to a major tonic harmony, the Type IX is part of a bII dominant in a minor key. That is, whereas a x8ve in a Type VII is a diatonic lower neighbour to the 3rd of the corresponding tonic harmony (Fig.15a), its counterpart in the Type IX, the 9th, instead typically prepares (and/or is prepared by) the b3rd of the corresponding minor tonic harmony (Fig.15b). Just as the Type VII component of a dominant bII is the counterpart of a Type I triad in the corresponding dominant V (Figure 15c), so is the Type VIII in a bII/i the counterpart of the Type II in the corresponding V/i (Figure 15d).

Figure 15. A comparison of the Type XI and Type VII and their respective functionally equivalent Group I triad-types (Type II and Type I).

a) b) c) d)

B:bII - I B:i - bVII/i - i B:V - I B:VI/i - i

Use of the Type IX can help facilitate an overlaying of two keys whose tonics are a half step apart--i.e., a minor key can be overlaid with allusions to the key of its bII--partly because the bVI harmony in a minor key can also function as V to the corresponding bII harmony. In B minor, for example, a G major chord can be both bVI and V/bII (a C chord). Thus, the 9th of a Type IX can be prepared as a 5th of what functions both as bVI/i and V/bII such that the bII chord of which the Type IX is a part is itself tonicized in some degree (Figures 16a and b).

Figure 16. Sorts of contexts in which a Type XI could be understood to occur amidst an overlaying of references to two tonics a half step apart.

a) b)

B:i - V - C:(bVII) - bVII/i - i B:i - V - C:(bVII) - bVII/i - i

It is, indeed, this kind of overlaying of keys which helps facilitate the transition, discussed above, from F# minor to B in ms.8-14 of 'Himmelfahrt' (Example 12) by way of the keys of D (ms.9-11) and C (ms.10-13). The progression from the third beat of m.11 to the C harmony on the first beat of m.13, is essentially an approach to that C chord from its dominant (V). However, a B minor harmony is introduced on the last beat of m.12. Its 5th (F#) prepares an implied #4th component of the C chord in m.13, which, in turn, prepares an implied 5th of another B minor chord on beat 2, and ultimately the root of the F# harmony (V/B) at the end of m.13. This implied #4th in the C chord combines with a #6th (A#) and a 9th (D) in the upper register to form a Type VIII triad [(F#)-A#-D]. Its 9th (D) is prepared most immediately in the lower register in m.12 as a b3rd of the B minor harmony, but ultimately in the upper register as a 5th of the G harmony; and its #6th (A#) is prepared in m.12 as a #9th.

By way of the pivotal B minor harmony on beat 2 of m.13, the C harmony gives way to the F# harmony with which the measure closes such that its Type VII component becomes the Type II component of V/B minor. The b6th (D) of the F# chord ultimately behaves, however, like a #5th (Cx) in that it leads to the 3rd (D#) of a B major harmony in m.14. The Type II triad [F#-A#-D] is thus left as if it were a Type I [F#-A#-Cx].

The B harmony of m.14 marks the conclusion of the exposition of this song and the beginning of the middle section (ms.14-30). I shall now consider the role of some significant parallels between harmonic patterns in the immediate approach to the beginning of the recapitulation (ms.29-31) and those in ms.1-14. By virtue of these parallels, some of which involve the Type VII and Type II triads in m.13, harmonic patterns in ms.29-31 recall in some way those in the opening phrase of the song (ms.1-6) and those in both the immediate and the more middleground approaches to the end

of the exposition, thus helping to draw the middle section to a close and to introduce the beginning of the recapitulation (ms.31 ff.).

In that the F# harmony of m.13 resolves to a B major harmony, its Type II component ultimately functions like the Type I F# triads in ms.29 and 31. Similarly, the Type VIII component of the C chord (m.13), by virtue of its anticipating this Type II, ultimately functions like Type VII triads of m.29 in their anticipation of the F# triad in m.31.

Furthermore, the overlaying of B major with C major in ms.10-14 is recalled very briefly in the middle of m.29 and again at the end of m.30. In m.29 the C chord (bII/B) on the second triplet eighth of beat 4 is tentatively tonicized by way of an approach from its dominant bII which is, in turn, approached as V/V/B. The C chord with which m.30 ends is likewise approached from its bII, but there the C#(Db) chord is, in turn, approached from a D chord which functions as bVI/V/B or, alternatively, as V/V/C. The pivotal role of this D chord--i.e., bVI/F# and V/V/C--thus recalls that of the D harmony in m.10, discussed above (pp.78-80).

At a deeper level there is a parallel between the root progression in ms.7-14 as a whole and that in ms.30-31 from the C# chord (m.30 beat 3) forward. The latter progression is essentially a very compressed version of the former. The two are further associated through their mutual relationship to the progression in the opening phrase of the song. As noted above (p.80), ms.7-14 constitutes a great elaboration of the root progression C#-F#-B in ms.3-5. Also, as mentioned above, within that elaboration the root progression C#-D-Eb (ms.8-9) recalls, in retrograde form, the root progression in ms.1-3. The root progression D-C#-(C)-F#-B in ms.30-31 is, on the other hand, a compressed version of the progression in ms.3-5.

The recallings of the Type VIII and Type II triads of m.13 as Type VII and Type I triads, respectively, in ms.29-31 are then but the most immediate and obvious of

several connections associating the progression in ms.29-31 with patterns in the exposition and, in particular, with those in the approach to the end of the exposition.

Type X and XI

The Type X triad [bb3-b5-7] occurs as part of a rather unusual dominant harmony, the dominant VII. The true dominant VII harmony is distinct from what I will term a 'false VII'. A dominant V chord, upon deceptive resolution to bVI, becomes a false VII with respect to that bVI chord, and the voice-leading withdrawal from a Group 3 component of a false VII chord will normally involve some chromatic adjustment (Fig.17a). (The C# harmony (V/F#) in m.8 of 'Himmelfahrt', for instance, is a false VII with respect to the D harmony to which it resolves in m.9 (Example 12).) There is no such dominant V function associated with a true dominant VII chord, and normal resolution of such a chord will involve no chromatic adjustments (Fig.17b).

The root and 3rd of a dominant VII are leading tones to the root and 3rd, respectively, of the referential I harmony, and are thus counterparts of the 3rd and #5th of the corresponding dominant V or of the #6th and x8ve of the corresponding bII. The Type X is the counterpart of the Type I component of a dominant bII (Fig.17c) and of the component Type VIII [b5-7-9] of a dominant V (Fig.17d).

A dominant VII could also, however, be a dominant of a minor tonic harmony in which case it would be understood to comprise not a 3rd but rather a b4th (or a "3rd"). The referential 3rd in such a VII will be an (absent) b3rd or a bb3rd--hence: "VII"(b4). The b4th would prepare and/or be prepared by the b3rd of the corresponding i. It would thus be the counterpart of the b6th in the corresponding Vb6/i or the 9th in the corresponding bII9(#6)/i.

The root of a dominant VII is perceived as such partly because of the nature of the interval-class structure of its component scale-degree set [8-3(b4)-7]. The presence

of ic4 between the root and 3rd (or b4th), for instance, is an especially significant conditioning factor in this respect. If the 3rd (or b4th) were to be replaced with what would correspond to a b3rd (thus replacing the ic4 with an ic3), the chord would be better understood as a dominant V with a suspended ninth (Fig.17e). That is, the ic3 would not have as strong an same effect in conditioning the perception of the root as such as would the ic4. The presences of a minor 7th--[8-7]--a tritone--[3(b4)-7]--and perhaps "major 9th"--[8-bb3] in such a VII chord are other factors conditioning the perception of the root as such.

It is also, however, partly because of the absence in such a harmony of a b6th that it is understood as such rather than as the corresponding dominant V. That is, if this pitch-class were present it would tend to take the function of a root (Fig.17f). Therefore, while a dominant VII may incorporate a Type IX triad and, hence, a whole-tone pentachord--i.e., [8-3(b4)-b5-7-bb3]--, it will likely not incorporate a complete whole-tone hexachord. If such a dominant VII were in some context to be understood as one incorporating a b6th, the resulting whole-tone hexachord would then comprise both a Type X triad and a Type II--hence: VII[8-3(b4)-b6-b5-7-bb3].

A whole-tone pentachordal VII chord is, on the other hand, understood as such rather than as the corresponding bII largely because of the low placements registrally of its root relative to the placement of its bb3rd, and of its 3rd relative to the placement of its b5th--e.g. as in Fig.17b rather than as in Fig.17c.

A dominant VII harmony is closely related, both in its unusualness and in its potential pitch-class content, to another peculiar dominant, the dominant #"II"; and it is as a component of a dominant #"II" that the last of the Group 3 triads, the Type XI [bb8-bb3-b5], can occur.

I use quotation marks in my designation for this chord--i.e., #"II"--because the major quality of the harmony is, in a sense, an illusion: the ic4 formed by the root

Figure 17. The Type X and its Type VI, Type I, and Type VIII relatives.

a) b) c) d)

e) f) g)

Diagram illustrating the relationships between Type X and its relatives (Type VI, Type I, and Type VIII) through musical notation and chord diagrams.

Chord diagrams and progressions shown:

- a) $G\sharp: i - \text{VII} - I$ and $G\sharp: i - \text{V} - \text{VII}$
- b) $E: I - \text{IV} - \text{VII} - I$
- c) $\text{VII} - I$
- d) $E: \text{V} - I$
- e) $E: i - \text{VII} - i$
- f) $E: \text{V} - I$
- g) $E: \text{V} - I$

and the $b4^{\text{th}}$, while it sounds like a major third (or a minor sixth), and as such helps condition the perceiving of the root as such, ultimately functions as a diminished fourth in its role as part of a dominant chord. It is thus related in this respect to the dominant "VII" ($b4$). The root of the $\sharp\text{II}$ --the counterpart of the $\sharp 5^{\text{th}}$ of the corresponding $\text{V}\sharp 5$ --is a diatonic lower neighbour to the 3^{rd} of the referential I chord, and its $b4^{\text{th}}$ --the counterpart of the root of V --prepares (and/or is prepared by) the 5^{th} of I (Fig.18a).

Figure 18. A context in which a #°II chord would be understood as such and one in which a #°II could be understood to comprise a Type XI component.

Figure 18 consists of two parts, a) and b), each showing a musical staff with a treble and bass clef, and a corresponding chord diagram below it.

Part a) shows a musical staff with a treble clef and a bass clef. The treble staff has a key signature of one flat (B-flat) and a 3/4 time signature. The bass staff has a key signature of one flat (B-flat) and a 3/4 time signature. The treble staff contains a sequence of chords: I, IV, #°II, and I. The #°II chord is circled. The bass staff contains a sequence of chords: I, IV, #°II, and I. The #°II chord is circled. Below the staff, the chord diagrams are shown. The first diagram shows the I chord (root, 3rd, 5th) and the #°II chord (root, 3rd, 5th). The second diagram shows the IV chord (root, 3rd, 5th) and the #°II chord (root, 3rd, 5th). The third diagram shows the #°II chord (root, 3rd, 5th) and the I chord (root, 3rd, 5th). The fourth diagram shows the I chord (root, 3rd, 5th) and the #°II chord (root, 3rd, 5th). The chord diagrams are labeled: C: I - IV - #°II - I.

Part b) shows a musical staff with a treble clef and a bass clef. The treble staff has a key signature of one flat (B-flat) and a 3/4 time signature. The bass staff has a key signature of one flat (B-flat) and a 3/4 time signature. The treble staff contains a sequence of chords: I, IV, #°II, and I. The #°II chord is circled. The bass staff contains a sequence of chords: I, IV, #°II, and I. The #°II chord is circled. Below the staff, the chord diagrams are shown. The first diagram shows the I chord (root, 3rd, 5th) and the #°II chord (root, 3rd, 5th). The second diagram shows the IV chord (root, 3rd, 5th) and the #°II chord (root, 3rd, 5th). The third diagram shows the #°II chord (root, 3rd, 5th) and the I chord (root, 3rd, 5th). The fourth diagram shows the I chord (root, 3rd, 5th) and the #°II chord (root, 3rd, 5th). The chord diagrams are labeled: C: I - IV - #°II - I.

As suggested in Figure 18a, such a #°II harmony will also typically incorporate a $\flat\flat 8ve$ --an diatonic upper neighbour to the root of I. The $\flat\flat 8ve$ may combine with a $\flat\flat 3rd$ and a $\flat 5th$ --diatonic upper neighbours to the 3rd and 5th, respectively, of I--to form a Type XI triad. Thus, the root and the $\flat 4th$ ("3rd") of a dominant #°II combine with a Type XI component to form a whole-tone pentachord, i.e., $[8-\flat 4("3")-\flat\flat 8-\flat\flat 3-\flat 5]$ (Fig.18b). A #°II chord will not typically incorporate a $\flat 6th$, as the presence of such a component would tend to condition the perceiving of the harmony as the corresponding $V(3)\#5$ or $bII\#6x8$. (Presuming that there may be contexts in which a harmony can be understood as a #°II chord which comprises a $\flat 6th$ and thus a Group 1 triad, that triad would be a variant of Type II, i.e., $[8-\flat 4("3")-\flat 6]$.)

Below I shall consider a passage from 'Ideale Landschaft' (ms.4-10) in which Webern exploits the similarities between the whole-tone-pentachordal VII/E and #°II/C harmonies to help effect an overlaying of a progression in E with one in the key of its $\flat VI$ (C major). But first, for an introductory example of how a dominant #°II/C might be used, I turn once again to 'Helle Nacht' to consider the role of such a chord,

the D# chord with which each verse begins, in a juxtaposing of B major and the key of its bII, C major.

The root of this D# chord, by way of its connection with the root of a subsequent Eb harmony (bVI/V/C)--e.g. in ms.1-3 (Examples 24-25)--, ultimately anticipates the 3rd of a tonic B harmony (m.4). The underlying implications of B major in this passage are also anticipated in the final measures of the previous song. In both ms.23 and 24 of 'Nächtliche Scheu' the 5th (A) of the tonic D harmony gives way to a #5th (A#), and a 9th (E) is then added such that the harmony becomes V#59/V/G, thus invoking G as a referential tonic. (Note the metrically emphasized G root harmonies on beats 1 of m.21 and m.23, and the exposed registral connection in the bass associating the two. Also, recall that in my discussion above of ms.20-24 (p.85) I suggested that the Bb of ms.20-23 derives from G minor (iv/D).) The V/IV D chords, however, both resolve to B chords, thus imitating dominant F# chords ("V"/B). The first (m.24) resolves as if it were V#57/B, the D root thus behaving as if it were a Cx in that it leads, via register transfer, to the 3rd (D#) of a B chord. The second V/IV/D (m.25) resolves, on the other hand, to a B minor triad thus behaving as if it were Vb67/i in B. The 9th (E) of this second D chord, however, ultimately resolves to a D# thus making the B chord a major harmony. The F# harmonies of ms.17-18 (Example 22) and the G harmonies of ms.20 and 23 could thus be understood as parts of an overlaying of an approach to a cadence in D with an interrupted approach to one in B--i.e., V-..."bVI"...bVI..."V"-I (ms.17-24).

The 3rd (D#) of the B chord in m.25 thus prepares indirectly, via the D root in ms.26-27 and the final E (a 9th) in m.27, the opening D# of 'Helle Nacht'.²² The

²²Gerlach points out that in Webern's manuscript the final bass note of 'Nächtliche Scheu' is not a D, as the Stein edition shows, but rather an E. See Gerlach (1972). As my analysis seems to work quite well using Webern's E, I shall assume that it is Stein rather than Webern who has made the mistake here.

latter D#, in turn, helps mediate a connection between the B harmonies in the final measures of 'Nächtliche Scheu' and that in m.4 of 'Helle Nacht', thereby helping to concretize the continuity of a progression in B which begins in the recapitulation of the former piece and extends through the latter.

At a more foreground level, on the other hand, the D# chord is part of a pattern of harmonies which are related more immediately to a referential C tonic. In ms.11-12 (Example 26), for instance, it connects two C-root harmonies. The latter C chord, bII#6/B, leads deceptively to its own dominant bII, thus functioning as a pivot which mediates a shift from one dominant of C to another, i.e. #°II"bb8-(I)-bII#6. In this light the G and D harmonies of ms.21-27 may be understood to function as parts of an approach to a C tonic in the opening of 'Helle Nacht'--i.e., "v"--...V-...V/V-...V9/V-[#°II"-I-bII] in C. The G harmony of m.23 thus serves a major pivotal role in an overlaying of anticipations of the keys of C and B. (Note in particular the equivocal function of E#(F) in this harmony--i.e., bVI#6/B or V7/C. The equivocal function of G#(Ab) here has a similar effect in helping to concretize the pivotal function of the G chord--i.e., bVI#8/B or Vb9/C.

The D# chord incorporates only part of a Type XI triad--[Db-A] ([bb8-b5]). But, as discussed above (pp.51-52), that dyad, [Db-A] prepares part of the ensuing Type I Db triad [Db-F-A], a functional equivalent of such a Type X, and it recalls part of the Type II C# triad [C#-E#-A] of ms.9-10. Its occurrence as part of the D# chord, then, helps mediate a transforming of the Type II component of the C# harmony (V/"v"/B) into a Type I component of the Db harmony (bII/C).

With respect to this referential key of C, then, the D harmony at the end of 'Nächtliche Scheu' functions as V/V; its 9th (E) anticipates the 3rd of the C harmony in m.1 of 'Helle Nacht'. The root progression D-D# connecting the two pieces is thus V/V-#°II" in C. By way of this connection--and, in particular, partly through the

mediatory function of the [bb8-b5] dyad ([Db-A]) of the D# chord--the Type I component [A-C#-E#] of V/D (or V/V/V/C) in m.23 of the former piece is transformed into the Type I Db triad in m.1 of the latter.

In ms.1-10 of 'Ideale Landschaft' (Example 2) Webern takes advantage of the fact that a #°II/C and a VII/E can incorporate the same whole-tone pentachord and three of the same sd-components--[8-b4-bb8-bb3-b5] and [8-3-7-bb3-b5]--to overlay an approach to a cadence in E major in ms.9-10 with an interrupted approach in ms.4-9 to a cadence in C (bVI/E) in m.9.

The whole-tone pentachordal D# harmony of m.8 functions ultimately as a dominant VII/E and as such its Group 3 component is a Type IX triad--[D#-Fx-A-C#-E]. As VII/E it extends the progression V/IV-IV in E of ms.6-7 which, in turn, takes up and consummates the approach to IV/E in ms.1-3 thwarted by the deceptive shift in ms.3-4 to a pivotal F chord--...-bII/E (IV/C-...). As a dominant of E then the D# pentachord recalls the F pentachord of m.4, itself potentially a dominant bII of E, i.e., [F-A-C#-(D#)-Fx(G)]. The Type IX triad in m.8 [F-A-C#] thus recalls the Type I component of that F chord. Also, as a dominant of E, the D# chord anticipates the dominant B chord (V/E) at the end of m.9. Its Fx prepares, via the "5th" ("G") of a C chord, an implied #5th (Fx) in the B harmony of m.9 which, indeed, resolves as such in m.10, to the 3rd (G#) of an E chord; and the third (D#), the 7th (A) and the 9th (C#) of the B chord recall the root, the b5th and the 7th, respectively, of the D# chord. Thus, in that the D# chord is approached most immediately as a dominant of E, and the C chord to which it resolves becomes bVI#6/E, the root progression D#-(G64)-C in ms.8-9 is really a deceptive one in E--i.e., VII-bVI.

However, the D# chord, in resolving, via V64/C, to the C harmony of m.9, functions as a substitute for a #°II/C harmony. Its 3rd (Fx) prepares, as would the b4th (G) of #°II/C, the 5th of the C chord; and its 7th (C#) leads down, as would the

bb8ve (Db) of #°II"/C, to the root of the C chord such that its Type IX component [F-A-C#] behaves as if it were a Type X component [F-A-Db] of #°II"/C.

As a substitute dominant to C, then, this harmony helps facilitate a resumption of the approach to a cadence in C which is interrupted at the beginning of m.6 with the shift from V/C to V/IV/E. Hence, ms.4-9 is IV-V/V-V-...(°II")-V64-I in C (or I-V/V/V-etc. in F). This interruption involves both an obvious chromatic adjustment--G-G#--as well as a very subtle enharmonic adjustment G-Fx. The #7th (F#) of the G chord (m.5), is suspended over the shift G-G# (ms.5-6) to become a 9th in the E chord (m.6), and then leads to both to a Fx (#9) and a F (b9). The F resolves to the 5th (E) of the A chord in m.7, and the Fx is suspended as an implied #6th through m.7 to prepare the 3rd of the D# chord in m.8. Thus Fx is introduced in m.6 as a lower auxiliary to the 3rd (G#) of an E chord in m.6 and ultimately resolves as such in m.10. The occurrence of that pitch-class as the root (G) of V(64)/C in m.9, however, recalls that in m.5; and it is this connection which is the strongest of the factors conditioning the sense of continuity between the approach to a cadence in C in ms.4-5 and its consummation in ms.8-9.

This idea that there are significant voice-leading connections between the G harmony of m.5 and the G and C harmonies of m.9--connections which the D# chord, as '°II"/C' helps mediate--is, indeed, borne out by the progression in ms.32-34 (Example 6), the part of the recapitulation of the song which corresponds to ms.5-9. There the connection between the two G harmonies is much simpler and more direct, being mediated by a dominant Ab harmony (bII/G)--i.e., V-bVI-V in C.

Chapter 6: Group 4 Triad-types

The last group of augmented triad types left to be considered, Group 4, includes those triads in which, taking the root as '0', the component pitch-classes combine to form the chromatic pc-set [1-5-9]. The only readily plausible scale-degree function for a chromatic pc1 is a b9th; and that for a chromatic pc5, a 4th. A chromatic pc9 functions typically as a 6th, but could, given an appropriate voice-leading context, be understood instead as a b7th, i.e., as functioning as a diminished seventh with respect to a root.²³ There are then two readily conceivable triad types in Group 4: Type XII--[b9-4-6]--and Type XIII--[b9-4-b7], and all of the triads of this group occurring in the 'Dehmel Songs' are instances of one or the other of these two types.

Type XII

In considering the idea of a Type XII triad an issue must be confronted which thus far I have touched on only implicitly. This is the issue of how to characterize, in terms of assigning a root and a Roman-numeral function, a harmony in which two of the component pitch-classes stand a perfect fourth and a major sixth, respectively, above the lowermost pitch in the harmony, i.e., a harmony which encloses what in figured-bass terminology is termed a '6/4 chord'.²⁴ In a context in which such a

²³As I've suggested in Chapter 1, some very peculiar voice leading circumstances are conceivable in which one might hear a chromatic pc1 as a #8ve or a #x7th, a chromatic pc5 as a #3rd or a bb5th, or a chromatic pc9 as x5th. However, I've not found in the 'Dehmel Songs' any instances of Group 4 triads in which a component of such a triad takes any of these other quite unusual scale-degree functions. Thus, while there may be several conceivable Group 4 triad-types of Kind U, I have considered only two of them as being relevant to the present study.

²⁴I use inverted commas and a slash in the present discussion to distinguish figured-bass-type designations--e.g. '6/4 chord' and 'passing 6/4'--from the figured-root-type designations I have been using thus far--e.g. V64. Note that in the latter term, V64, the designation 64 may, but does not necessarily, correspond to functions of pitch-classes in a harmony with respect to its lowermost pitch; rather it designates

harmony occurs as what is traditionally termed a 'passing 6/4', the lowermost pitch of that harmony is typically understood as a 5th (Fig.19a). The notion of a Group 4 triad involves the possibility that in certain contexts in which such a harmony functions rather as what is traditionally termed either an 'appoggiatura 6/4' or a 'cadential 6/4' the harmony should instead be heard as a dominant V chord whose lowermost pitch functions as a root. While the 4th and 6th of such a V64 may, and indeed typically do, at some level anticipate the root and 3rd, respectively, of the corresponding I chord, the 4th typically functions more immediately as an upper neighbour to a 3rd, and the 6th, as a neighbour to a 5th and/or a 7th (Fig.19b). The perception of the root of the latter chord type as such then derives, perhaps more so than that of any other, from the combination of the particular voice-leading context in which it is placed--especially the manner of withdrawal from the chord--and the chord's particular interval-class structure, rather than from, and, indeed, in spite of, this interval-class structure alone.

Figure 19. A 'passing 6/4' as compared to a cadential 'appoggiatura 6/4' in terms of root perception.

a) b)

D: I - V⁽⁷⁾ - I A: IV - V⁽⁷⁾ - I

pitch-class functions with respect to a root regardless of the registral placement(s) of that root relative to other pitches in the harmony and, indeed, regardless of whether that root literally sounds as part of the '(..)64' harmony, e.g. as in Figs.21a and b.

A Type XII triad is formed then when the 6th and 4th of a V64 combine with a b9th, an upper neighbour to the root. The b9th is typically a suspension prepared in a preceding harmony, e.g. as the root of bVI (Fig.20a). If the dominant V of which the Type XII is a part resolves deceptively to bVI then the b9th prepares its root; and if that bVI incorporates a #5th, and hence a Type I triad, then the Type XII anticipates that Type I and the resultant deceptive root movement V-bVI (Fig.20b).

Figure 20. Typical sorts of ways a Type XII could be heard to function in context.

a)
 b)

A: V - bVI - V - I A: V - bVI

Of course the root of a harmony incorporating a Type XII need not necessarily be the lowermost pitch in the harmony. The lowermost pitch could, for example, be a 3rd (Fig.21a) or even a 5th (Fig.21b).

As Figures 21a and b show, the b9th in a Type XII could be prepared as part of iv or bII of the key in which the harmony with the Type XII component is V. The presence in a major key of either of these two harmonies, iv and bII, in that they derive from the key of the subdominant minor to the key at hand--i.e., the key in which these harmonies are i and bVI respectively--, may be part of significant allusions to the tonic of that minor key as a referential tonic. Consequently, a Type XII triad, specifically through the occurrence of its b9th, could help concretize allusions to this subdominant key, and, since a (minor) i is iv of its (major) V, the dominant chord of which this triad is a part could ultimately function, either at the immediate surface or

Figure 21. Sorts of contexts in which a harmony comprising a Type XII component does not have a root in the bass, i.e., it is not a '6/4 chord'.

Figure 21 consists of two parts, a) and b), each showing a musical score and a corresponding chord diagram. Part a) shows a musical score with a treble and bass staff. The bass staff has a dotted line indicating a non-root position. Below it is a chord diagram for A: I - IV - V, with notes 8, 5, 4, 3, 8, 5, 3, 8, 7, 5, 3, 8. Part b) shows a similar musical score and chord diagram for A: I - bII - V, with notes 8, 8, 4, 3, 8, 5, 3, 8, 7, 5, 3, 8.

at a some more background level of structure, as V/V/i (Fig.22a). In that its b9th and 4th could, at some level prepare, the b3rd and 5th, respectively, of the corresponding i, and its 6th could, at some level, function as leading tone to the root of that i, such a Type XII is closely related to a functionally equivalent Type II triad (Fig.22b).

Figure 22. Comparison of a potential function of a Type XII and that of its functionally equivalent Type II.

Figure 22 consists of two parts, a) and b), each showing a musical score and a corresponding chord diagram. Part a) shows a musical score with a treble and bass staff. The bass staff has a dotted line indicating a non-root position. Below it is a chord diagram for D: i - V/V - V - i, with notes 5, 4, 3, 8, 5, 3, 8, 7, 5, 3, 8. Part b) shows a similar musical score and chord diagram for D: i - V - i, with notes 5, 8, 5, 3, 8, 7, 5, 3, 8.

For an initial example of a Type XII triad I return to the harmony of m.23 of 'Ideale Landschaft' (Examples 3-5). This harmony was discussed in Chapter 2 in connection with a consideration of the approach to the Type I triad [B-D#-Fx] in m.24 (pp.41-42). There I characterized the harmony in m.23 as having an E root. I now

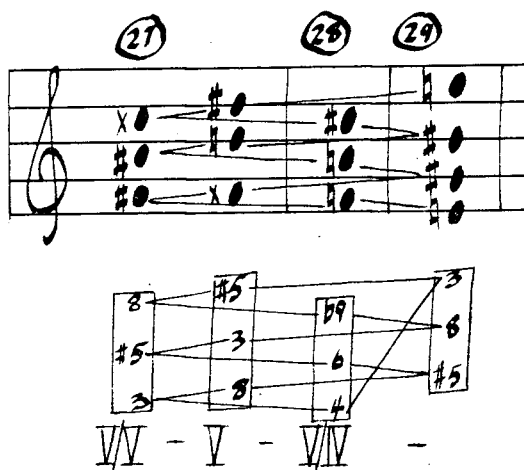
qualify that analysis by suggesting that this harmony is, rather, essentially a cadential V64 chord whose root is B and whose 4th (E) and 6th (G#) combine with a b9th (C) to form a Type XII component [E-G#-C]. The components E, G# and B of this harmony do ultimately have anticipative functions with respect to the root, 3rd and 5th of the E harmonies of ms.28-29. Its E and G# function more immediately, however, as upper neighbours resolving to the 3rd (D#) and #5th (Fx), respectively, of the V#5/E harmony in m.24, and its C resolves in m.24, as an upper neighbour, to the B root.

The harmony of m.23 is the initial harmony in a linear progression in ms.23-27 in which, by way of a parenthetical excursion to V/V/E in ms.23-27, the interval between the root and 3rd of V/E is unfolded in the bass--B-C#-Cx-D#--, thereby prolonging V/E. (This prolongation of V/E is but part of a deeper level such prolongation which, as discussed above (p.71), extends back to m.19.)

Ms.23-27 is essentially a modified repeat, a fourth lower, of a linear progression which unfolds in ms.1-6 and which prolongs V/A (or V/IV/E), i.e. E-F-F#-G-G#. The progression in ms.23-27 accomplishes an approach to the beginning of the recapitulation proper in m.28. Corresponding to the Type XII triad [E-G#-C] in m.23, then, is one a fourth higher--[A-C#-F]--in m.28, whose component pitch-classes are all upper neighbours to those of the Type I E triad [E-G#-B#] of m.24. (The 4th (A) is suspended in the middle register against the 3rd (G#), the pitch-class to which it reaches as an upper neighbour, such that it prepares the 3rd of the F chord of m.31.). The components of the Type I E triad are, however, also approached by half step from below, from pitch-classes introduced as components of the Type I B triad [B-D#-Fx] in m.27. Furthermore, the component pitch-classes of both the Type I B triad [B-D#-Fx] and the Type XII [A-C#-F] are approached by half step--those of the former, from above, and those of the latter, from below--from pitch-classes introduced as components of the Type I F# triad [F#-A#-Cx] in m.27. Thus the Type XII triad (m.28)

is formed amidst one of two sets of voice-leading streams in parallel motion emanating from the pitch-classes of the Type I F# triad, one set leading up and the other, down, the two converging on the components of the Type I E triad in m.29 (Fig.23).

Figure 23. A pattern comprised by in the succession of augmented triads in ms.27-29 of 'Ideale Landschaft': two sets of streams of voice leading in parallel motion emanating from the F# triad in m.27--one set leading up, the other, down--and converging in the E triad [E-G#-B#] of m.29.



In addition to the component A of the Type XII in m.28, its components C# and F also each ultimately prepare a component of the F harmony in m.31. Thus the deceptive root progression E-F of ms.30-31--V/IV-bII in E (or V-bVI in A)--is prepared by the Type XII triad in m.28, the Type XII [F-A-C#] ultimately anticipating the Type I component of the F harmony of m.31.

The occurrences of the Type XII triad [A-C#-F] in m.28 and the Type I [A-C#-F] in m.30 are significant factors in the substantiation of allusion to A as a referential tonic. Note that in the harmony of m.1 of the song, the counterpart to that of m.28, the pitch-class A, which would complete a Type XII component--[F-(A)-C#]--, is absent. Nevertheless, the allusion to A as a referential key in the opening phrase of the song (ms.1-7) is clear partly in that, as discussed above, the progression of ms.1-6 ultimately prolongs a dominant E harmony (V/A) which then resolves to an A major

harmony in m.7 (Example 2). While there is no counterpart to this A harmony in the closing section of the song, the key of A, albeit A minor, does indeed emerge as an important referential key in the opening of the subsequent piece, 'Am Ufer'. (Recall the connection, discussed above (p.49), between the Vb6/A with which 'Ideale Landschaft' ends and that with which 'Am Ufer' begins (Example 6).)

Allusions to A minor can, in fact, be heard in ms.22-23 ('Ideale Landschaft'). The b9th (C) of the Type XII triad in m.23 derives from this key. It is prepared, via register transfer, as a 5th in the F harmony (bVI/A) with which m.22 ends. The root progression F-B in ms.22-23 is ultimately, then, bVI-V/V in A minor, the F harmony being approached, in turn, from a Bb chord which, with its #6th (G#), functions as a dominant bII with respect to an A tonic. (Note that the Bb harmony of m.18 is, indeed, approached from an A major harmony as a dominant bII/A. With respect to this underlying referential A tonic the root progression Bb-B of ms.18-19 is bII-V/V. See p.66.)

The E and G# of ms.28-29, as discussed above, recall those of the Type XII triad in m.23, just as do the components of the Type I F triad in m.31 recall those of the Type XII in m.28. The C (b9th) in the Type XII of m.23, the counterpart of the F (b9th) of the Type XII in m.28, however, is also recalled, albeit in a more obscure way than are these other pitch-classes, in m.29: through enharmonic adjustment via B and C# in ms.24-28, it is recalled as the B# of the E harmony in m.29, i.e., C-(B-C#)-B#. The Type XII [E-G#-C] in m.23 is thus recalled as a Type I triad [E-G#-B#] in m.29; the process of enharmonic adjustment C-B# thus effects the transformation of a triad set in A minor to one set in A major (B# being a diatonic lower neighbour to C#).

This recalling of the C of m.23 as B# in ms.29-30 is important at two levels. At a deep level it helps mediate an A major/minor duality in the song. Note that over the course of ms.30-35 the transformation process is reversed, with the Type I triad

[E-G#-B#] of m.29 returning in m.35 as a Type II [E-G#-C]. By way of the intermediary Type I triad of m.29, then, the Type II component [E-G#-C] of the harmony with which the song ends recalls the Type XII triad of m.23.

The harmony of m.23, in turn, recalls the harmony with which the first section of the song ends (m.10), i.e., the Type XII recalls the Type II triad of m.10 (a counterpart of that in the final harmony of the piece.)¹ The occurrence of the Type XII in m.23, then, by way of its associations with that of the Type II in m.10 on the one hand and with that of the Type I in m.29 on the other, helps mediate a harmonic connection between the end of the opening section and the opening measures of recapitulation proper (ms.27-30).

At a more immediate level, the Type XII triad of m.23 anticipates a peculiar Type II-like aspect of the Type I triad in ms.29-30. As discussed above (p.42); the B# of ms.2-3, the counterpart of that in ms.29-30, prepares an implied component of the F harmony of m.4, a component whose presence as an implied "5th" ("C") helps concretize the function of the F root as such. The B#-ness of the pitch-class--i.e., its function as a diatonic lower neighbour to C#--is ultimately consummated in that it does eventually lead to a C# in m.4 and m.31; but, in light of momentary "C-ness" of the pitch-class as part of the F harmony on the downbeat of m.31, the function of the augmented triad [E-G#-B#] in which this implied "C" is prepared in ms.29-30 has, in retrospect, a Type II-like aspect about it, i.e., the triad functions as if it were [E-G#-C]. This Type II-like aspect is enhanced by the triad's having been anticipated as a Type XII in m.23, that is, by its B# having ultimately been prepared as a C in m.23. Note that the C of m.23 is, in turn, prepared in m.22 as a 5th of an F chord. There is, then, by way of the connection between C in m.23 and B# in ms.29-30, a tangible connection between the implied "5th" of the F harmony in m.31 and the 5th of that in m.22. This C-B# duality over the course of ms.22-29 helps effect a dovetailing of allusions to A minor

and A major, the allusions to A major being parenthetical, though, amidst a prevailing sense of a referential A minor in the background in ms.22-38 and, indeed, through the song as a whole.

A correspondence between the Type XII triad of m.23 and the Type I of ms.29-30, conditioned by this sense of imitation between them, is an essential part of an elaborate harmonic mirror effect in the progression spanning ms.22-31. The mirror pattern begins with the Bb harmony of m.22, has its axis in the F# harmonies in ms.26-27, and ends on the brief Bb chord at the end of m.31 (Fig.24a, p.106). Figure 24a illustrates that the correspondence between the Type XII (m.23) and the Type I (ms.29-30) is but part of a more specific mirror pattern comprised by the succession of augmented triads which unfolds through the course of these measures, a pattern which plays a prominent role in concretizing the harmonic mirror effect in ms.22-31 as a whole.

The central part of this mirror pattern, that framed by the harmonies of m.23 and ms.29-30, does, in fact, bear a striking resemblance to one comprised by the harmonic structure of 'Am Ufer' as a whole: as Figure 24b illustrates, the harmonic progression of ms.1-16 of 'Am Ufer' can be heard as essentially an amplified version of the progression in ms.23-30 of 'Ideale Landschaft'. The Type XII in m.23 and the Type I in ms.29-30 of the first song correspond, respectively, to the Type II triad with which 'Am Ufer' opens and the Type II and Type III triads in the opening of the recapitulation in ms.15-16; the Type I B triads [B-D#-Fx] (V/V/A) in m.24 and m.27 ('Ideale Landschaft') correspond, respectively, to the Type I B triad of m.6 and the Type II B triad [B-D#-G] of ms.10-11 of 'Am Ufer'; and the F# harmonies of ms.26-27 ('Ideale Landschaft'), the axis in the mirror pattern, corresponds to those in m.7 of 'Am Ufer'. (The component triad [A-C#-E] of the harmony in m.28 of 'Ideale

a) 'Ideale Landschaft', ms. 22-31.

106

Landschaft', in that as a cadential 6/4 it ideally anticipates an resolution of the dominant E harmony to I in A, corresponds to the A major triad in m.13 of 'Am Ufer'. Also the B minor harmony in m.25 of 'Ideale Landschaft' corresponds to that in m.7 of 'Am Ufer'.) The progression of ms.23-27 does then have a sense of previewing the recoiling effect to follow in 'Am Ufer' in the root progression of ms.1-7. (Note that in 'Am Ufer' this process of recoiling extends beyond the F# harmony of m.7 through to the C# and G# harmonies of ms.8-9 before the return to a B root harmony in m.10, such that the axis of the mirror in 'Am Ufer' lies in the C# harmony of m.8.) The correspondences between the harmonic functions of the Type XII triad of m.23 ('Ideale Landschaft') and those of its counterparts, the Type II E triads [E-G#-C] in the opening measures of 'Am Ufer' and the Type II and Type III triads [E-G#-C] in ms.15-17 illustrate well something of the nature of the functional identity between a Type XII and two other functional equivalents, Types II and III. In this instance the triads are functionally similar in particular, for instance, in that each is part of a harmony which gives way to a dominant B chord (V/V in A minor) with a component Type I triad [B-D#-Fx].

Recall that with respect to the opening Eb harmony of 'Himmelfahrt', the B(Cb) harmonies in ms. 16-19 of 'Am Ufer' ultimately function as bVI/Eb--i.e., the root progression B(Cb)-Bb in m.19 is bVI-V in Eb, and that the more middleground root succession B(Cb)-B of ms.10-13 can likewise be heard to prepare the emergence in 'Himmelfahrt' of a referential Eb tonic. Given the functional correspondences between the B harmonies of 'Am Ufer' and those of 'Ideale Landschaft'--effected partly by way of the correspondences between the mirror patterns in these two songs--, the B(Cb) and Bb harmonies of 'Ideale Landschaft' can be understood to function at a background level as bVI and V, respectively, with respect to the Eb key of 'Himmelfahrt'. The most exposed allusion in 'Ideale Landschaft' to the key of Eb is in m.22 in the

foreground root progression approaching the initial Bb harmony of the mirror pattern: B(Cb)-Bb (bVI-V in Eb). These veiled anticipations of Eb are recalled and then consummated in the root progression B(Cb)-Bb-Eb (bVI-V-I in Eb) which connects the end of 'Am Ufer' to the opening of 'Himmelfahrt' (Example 10). (See p.51, pp.57-58 and pp.66-67.)

Type XIII

The last triad type to be considered in this study is the Type XIII [4-b7-b9]. This type functions much like the Type XII except that its component pitch-class standing 3 semitones below the root functions not as a 6th but as a b7th. The Type XIII occurs as part of a dominant V in a minor key; that is, its b7th is, at some level, an upper neighbour to the b3rd of the corresponding i chord (Fig.25a), or to a pitch-class component of the V chord which anticipates such a b3rd (Fig.25b).

Figure 25. Plausible sorts of withdrawals from which would help concretize the understanding of a Type XIII component as such.

a) b)

Figure 25 consists of two parts, (a) and (b), each showing a musical example and a corresponding chord diagram. Part (a) shows a musical example with a treble and bass staff. The treble staff has a melodic line with a triplet of eighth notes (F#, A, B) and a quarter note (C). The bass staff has a triplet of eighth notes (F#, A, B) and a quarter note (C). Below the staff is a chord diagram for F#m7b9, showing the root F#, b3 A, b7 B, and b9 C. Part (b) shows a similar musical example, but with a different melodic line in the treble staff. Below the staff is a chord diagram for F#m7b9, showing the root F#, b3 A, b7 B, and b9 C. The diagrams illustrate the relationship between the Type XIII component and the F#m7b9 chord.

The Type XIII results from an overlaying or dovetailing of a progression in that minor key with allusions to the keys of that key's bVI or its bii. The b7th in a Type

XIII is thus understood as such largely by having been appropriately prepared in a harmony or harmonies which derive from that other key area. For example, a $b7^{\text{th}}$ might be prepared as a 5th in a dominant bII in the key of bVI (Fig.26a), or in a bVI in the key of bii (Fig.26b), or as a $b3^{\text{rd}}$ in i of the key of bii (Fig.26c). The triad as a whole may be prepared as a Type II component $[8-3-b6]$ of bVI , that harmony being a main pivotal chord between the two key areas involved, i.e., $Ib6(\text{or } Vb6/i) = bVIb6/i$ as in Fig.26a or $Vb6=bVIb6$ as in Figs.26b and c.

Figure 26. Sorts of contexts in which a Type XIII could be understood to arise amidst a dovetailing of a progression in a minor key with one in the key of that key's bVI or bii .

Figure 26 consists of three musical examples, labeled a), b), and c), each showing a staff with treble and bass clefs. Below each staff is a diagram illustrating the pitch-class relationships and Roman numerals for the chords involved.

- a)** The staff shows a progression of chords. The diagram below shows the pitch-class relationships: $5 - b6 - b7 - b3$ and $3 - 3 - 4 - 3 - 8$. The Roman numerals are: $D: bII - I -$ and $F\#: bVI - V/i - i$.
- b)** The staff shows a progression of chords. The diagram below shows the pitch-class relationships: $b3 - 5 - b6 - b7 - b3$ and $8 - 3 - 3 - 4 - 3 - 8$. The Roman numerals are: $G: i - bVII - V/i -$ and $F\#: bVI - V/i - i$.
- c)** The staff shows a progression of chords. The diagram below shows the pitch-class relationships: $b3 - b6 - b7 - b6 - b3$ and $8 - 3 - 4 - 3 - 8$. The Roman numerals are: $G: i - V/i -$ and $F\#: bVI - V/i - i$.

Just as the pitch-classes of a Type XII may lead down by diatonic half step in parallel motion to those of a Type I triad above an unchanging root--i.e., $V[b9-6-4] - V[8-\#5-3]$ (as in ms.23-24 and ms.28-29 of 'Ideale Landschaft')-- , so may the pitch-classes of a Type XIII lead down by diatonic half step in parallel motion to those of a Type II above an unchanging root--i.e., $V[b9-b7-4] - V[8-b6-3]$ (Figs.25b and 26a, b and c).

A Type XIII triad [D-F#-Bb] occurs in m.9 of 'Helle Nacht' at the end of the second quarter note beat (Example 26) (as well as in the corresponding place in each of the subsequent two verses, i.e., in m.20 (Example 28) and m.31 (Example 30).) (Note that unlike the above examples of Group 4 triads here the root (C#) is not in the lowermost voice.) The shift to a C# root from a D root on the down beat of m.9 is effected primarily by the shift in parallel sixths in the left-hand piano part in ms.8-9 from [A-F#] to [G#-E#]. The b9th (D) and the 4th (F#) of the Type XIII are then ultimately suspensions prepared as a root and a 3rd, respectively, in m.8; they resolve at the end of m.9 to the root (C#) and the 3rd (E#), respectively, of the C# chord. The b7th (Bb) leads, via the 5th (G#), to a b6th (A) on the last eighth of the measure. The Type XIII [F#-Bb-D] thus ultimately gives way, as a set of upper neighbours, to the Type II triad [C#-E#-A] at the end of m.9. (The Type II C# triads in ms.9-10 have been discussed on p.51.) The Bb (b7th) is understood as such partly in that it recalls the 5th of the Eb chord (m.8) from which the D harmony in m.8 is approached. The A (b6th) in m.9, in turn, recalls the 5th of the D chord (m.8). The voice leading Bb-A in m.9 thus reiterates canonically that in the bass register of m.8, thereby creating the effect of a subtle compound suspension within the C# harmony.

The Type XIII triad of m.9 derives ultimately from an overlaying of progressions in the keys of B and C. The main pivotal harmonies in this overlaying are the G harmonies of ms.5-7 and the D harmony of m.8.²⁵ The G harmony of ms.5-6 is approached as bVI in B. The C's in the middle register of ms.6-7, however, have the effect of anticipating a possible resolution of the G chord, as V, to I in C, the C's thus anticipating a root of such a C chord. The root progression G-Ab in m.6 is,

²⁵Recall the similar pivotal roles of D and G harmonies in ms.10-12 of and m.30 of 'Himmelfahrt' (pp.77-79 and pp.86-88) and ms.18-23 of 'Nächtliche Scheu' (p.59 and p.93). The use of G harmonies in overlayings of progressions in B with those in C in 'Helle Nacht' also recalls their use in ms.5-9 and ms.32-34 of 'Ideale Landschaft' in overlayings of progressions in E with those in C (pp.94-96).

indeed, a deceptive progression in C, i.e., V-bVI. The component A# of the G harmony in m.7 is a #9th which is indirectly prepared as a 3rd of the F# chord (V/B) in m.6. While it leads as an A# to the #5th of the Eb chord (bVI/G or bVI/V/C) in m.8, it is also retained in the bass of m.8 where it becomes Bb, an unaltered fifth of the Eb harmony, and, as such, ultimately prepares the suspended b7th (Bb) in m.9. The D harmony (m.8) is approached as V/G (or V/V/C) and left as bVI/F# (or bVI/V/B), its B# (C) ultimately leading as a #6th to a C# root in m.9. A C harmony does ultimately emerge in m.11 but it is approached from V/v/B in ms.9-10 as bII/B, a substitute for V/B. Recall also the concretization of allusions, discussed above (p.93), to a referential C tonic in the in ms.12-14 (the counterpart of in ms.1-3).

Allusions to a referential C tonic are somewhat more exposed in the third verse of the song where, largely by virtue of an inversion of the texture of the first and second verses and the resultant bass note C in the second half of m.29, the root progression in this measure becomes G-C (V-I in C).

In comparing the progressions in the first and third verses, it must be admitted that the sense of the triad [D-F#-Bb] in m.31 as being part of a C#-root harmony is considerably more obscure than is that of the Type XIII in m.9, but its ultimate function--i.e., as a set of upper neighbours prepared in m.30 and giving way to the Type II C# triad [C#-E#-A]--is, nevertheless, the same.

The Type XIII of m.9 (and of m.20 and 31) occurs amidst the root progression Eb-D-C#, a pattern which, as mentioned above (p.10), bears a striking similarity to one in ms.1-3 of 'Himmelfahrt' (Example 11). (See also pp.78-81 regarding occurrences of that motivic pattern in 'Himmelfahrt'). Part of a Type XIII triad, in fact, occurs briefly as part of the C# harmony in m.3 of this piece (Example 11a). Upon the entrance of the C# root on the fourth eighth of the measure, there stands against that root a suspended b7th (Bb)--prepared as a b6th above the D root and ultimately as the 5th of

the Eb harmony in m.1--and an implied 4th (F#)--a suspension prepared as a 3rd in the D harmony in m.3. The Bb and F# then lead (the F# via register transfer) to the 6th (A) and 3rd (E#), respectively, of a Type II C# triad [C#-E#-A] in the last beat of the measure. Recall also that this same succession of roots--Eb-D-C#--is formed by the roots of the closing harmonies of the last three songs of the cycle: Eb ('Himmelfahrt') - D ('Nächtliche Scheu') - C#(Db) ('Helle Nacht'). The Type XIII triads in the last song and the Type XIII fragment in 'Himmelfahrt' occur then as a result of dovetailings of surface level Eb, D and C# harmonies, harmonies which combine to form surface level root progressions mirroring this background root succession.

Chapter 7: An Analysis of the 'Dehmel Songs' as a Whole

Introduction

In this concluding chapter I focus initially on what is perhaps the most wonderfully complex foreground passage in the song cycle--the approach to the final cadence of the third song, 'Himmelfahrt' (Example 17). Analysis of the passage is especially important in the context of this study because it is so obviously illustrative of the significance of the notion, central in the format of my drawings, of the effect of congruence between tonal and extratonal effects in the voice-leading patterns in these songs. The significance of this kind of congruence, which I tried first to illustrate simply in my introductory chapter with Example 1, is illustrated in Example 17 in a more profound way. With respect to the extratonal effect of this passage, the succession of four augmented triads in the r.h. part, from the last eighth of m.39 through to the end of m.41, is so striking a feature of the progression here because the pattern is set apart--texturally and registrally--from the l.h. and voice parts. One very important feature of this pattern, comparable to that of the r.h. part of Example 1, is its primitive serial character: indeed, the succession of the four triads articulates in a very simple and exposed way a complete twelve-tone row. On the other hand, the manner in which that succession is deployed and set in context of the tonal voice-leading pattern of the passage treated in Example 17, and, at further removes, in context of the background tonal gestures comprised by the piece and the song cycle as a whole; imbues this simple succession with a vast richness of tonal meaning. Conversely, a relatively coherent and complete interpretation of the tonal meaning of this passage with respect to the larger contexts in which it plays a significant structural role is essential if one is to begin to form a conception of how to hear a

broad tonal gesture spanning all five songs, one engendering a tangible sense of completion with the last song, its ending in particular.

Discussion of this passage will begin with a meticulous analysis of the tonal meanings of each of the augmented triads it contains, and of their interrelationships in terms of the various triad-types defined in previous chapters. In the process, an explicit interpretation of the tonal design of the passage as a whole will take shape. By building a conception of tonal patterning in terms of a rigorous characterization of the tonal meanings of the passage's augmented-triad-based pattern--one whose pronounced extratonal effect lends a very significant element of order to the voice-leading structure--, I will be using the latter, which is serial in nature, as a kind of simple referential scaffolding with which to help maintain order in deriving an interpretation of the passage's tonal effect. Once the usefulness of that scaffolding has been exhausted, however, I will let go of primary attention to the serial pattern and allow the appreciation of its tonal-expressive significance to predominate as an agent of the passage's expressive effect. However, by initially ordering a tonal interpretation of the passage around its prominently exposed serial skeleton, I will conveniently be delineating something of the nature of the congruence between tonal and extratonal effects in the passage's voice-leading configurations, one which has an expressive significance of its own. Having derived such an understanding of this key passage, I can then proceed to consider its structural relationships to previously treated passages in this song and in the other four, and, in the process, begin to assemble the broader contexts into which this passage fits. What will emerge in this way is a proposal for perceiving an unfolding unity as one listens to the 'Dehmel Songs' as a whole.

This final passage of 'Himmelfahrt' comprises a wide variety of triad-types and triad-interrelationships, constituting, in its way, a demonstration of why it was useful to have developed, in the preceding chapters, an explicit vocabulary with which to

characterize tonal meanings of triads and of triad-inter-relationships as they occur in particular voice-leading contexts. In this final chapter I hope to illustrate that, while it can be very useful in deriving a tonal analysis of an extremely complex harmonic progression to order that analysis around the tonal interpretation of a readily distinguishable referential pattern of recurrence of a particular set-class(es), one must be prepared, by considering exhaustively the distinct ways in which the referential set-class(es) could function tonally, to rigorously characterize the tonal meaning of a set-class instant in context. A characterization which is too vague will tend to render vague the interpretation being sought of the passage in which the set occurs. That vagueness may derive from insufficiently specific attribution of function to the set-class instance in question--e.g. "the set is part of some sort of a dominant of C;" or it may involve attributing too many simultaneous meanings to the set, each of which may be specific and useful in itself or perhaps in combination with another--e.g. "the set is part of V/D, V/F# and V/Bb"--, but which, taken all together, constitute a meaning either impossible to hear or just too open to be of use in bringing a tonal interpretation of the passage in question into sufficient focus. As we have seen, for example, the augmented triad can have a great variety of different meanings depending on the context in which it occurs. If we hear the tonal meaning of such a triad in too primitive a way or try to hear it in too many different ways at once we will not hear the passage in which it occurs as meaning much of anything in particular.

Given the very significant structural role of the ending of 'Himmelfahrt' in the overall design of the song cycle, what will emerge, as this role is considered, is a vivid impression of the significance of the nature of the congruence between the serial effects in this and other passages and in the background tonal structure of the work. I hope to hint, thereby, at how this kind of approach, involving the notion of congruence between tonal and extratonal effects expressed in the voice-leading

patterning, might serve as a model for attempting tonal analyses of Webern's later pre-serial, "atonal" works, some of which have shown themselves to be intelligible through the use of pc-set analyses, and of the crystalline serial patterning in his twelve-tone music. With regard to approaching the latter works in this kind of way, further consideration of this passage may indeed be one place to start since ms.39-41 was among the earliest, and for some time thereafter among the few, places in his oeuvre where Webern uses a complete twelve-tone row in such an obvious way.

An analysis of the closing passage of 'Himmelfahrt'

I shall begin my analysis of Example 17 with a consideration of a harmony dealt with briefly in Chapter 3 (p.48 and p.51), the tetrad on the third beat of m.39--[C#-E#-Gx-B]. In that earlier discussion I conceived of this harmony as a dominant C# chord (V#57/F#) incorporating the Type I triad [C#-E#-Gx]. (I shall refine my interpretation of the tonal meaning of that chord below, but, for the present, continue to conceive of it as having the root C#.) This harmony is significant in several ways. Locally, its augmented-triad component recalls the Type II triad--[C#-E#-A]-of m.38, so that the intervening events of ms.38-39 effect the transformation of the set from a Type II triad into a Type I, i.e., from Vb6 of F# minor into V#5 of F# major (or V/V/B). And this same set is again recalled as a component of the harmony at the end of m.41, the penultimate harmony in the song's last significant cadential root progression: A-Eb (ms.41-42). (I will have more to say below regarding the question of the root of the '6/4'-harmony at the end of m.41, but for now I will simply regard that chord as a dominant on A (V/D minor) in second inversion.) The pattern of recurrence of this set--[C#-E#(F)-Gx(A)]--thus forms an important referential skeleton in the voice-leading design of the passage as a whole.

The last two occurrences of this pc-set enclose the events in ms.39-41, which are of the most immediate concern in the present discussion. The occurrence of the pc-set in m.39 prefixes the unfolding, following immediately, of the twelve-tone row referred to above; I say "prefixes" because the occurrence of this set stands apart texturally from those in the pattern following: the latter are all four-part sonorities in close position, set apart in the upper register from the l.h. part set in parallel octaves. With the exception of the case of the l.h. F#'s in the last harmony of m.39--which, like the l.h. Gx's of the preceding harmony, stand within the augmented-triad component of the harmony of which they are a part--, the l.h. pc's in the following pattern all stand outside the augmented triads sounding in that pattern. The F# chord thus functions as an elision between the prefix and the beginning of the pattern proper.

As a hint of the relevance of a careful consideration of the tonal meaning of the C# chord of m.39 to respect to an understanding of the overall tonal structure of the song cycle, I would simply point out that the pc-set which contains this harmony-- [C#-E#-Gx-B]--is precisely the same as that which contains the final Db(C#) harmony of the last song--[Db-F-A-B]. In Example 17 I describe the latter as a dominant augmented-sixth chord, suggesting that it functions most immediately as a dominant of C and as a perhaps a secondary dominant of F, but below I will consider the possibility that it also has significant meaning as a secondary dominant of B--i.e., as V/V/B, like the chord of m.39, or as bII/bII/B.

The C# chord of m.39 functions most immediately as a dominant of F#, as my earlier analysis shows (p.48). It is approached from and in turn gives way to dominant F# harmonies (V/B), and is thus, with respect to the events of m.40, a tertiary dominant to E (V/V/V/E). The E harmony in the last part of m.40, in turn, functions as a secondary dominant (V/V/D) in the approach, thwarted in m.42, to a cadence in

D. The resolution of that C# chord to a dominant F# chord is thus the beginning of a local initiative forward in a movement towards a cadence in D.

The tonal functions of the C# harmony, however, are somewhat more complicated than this. These complications arise partly from the difficulty, given the octave Gx's in the bass, of hearing this harmony as a V#5/F# in second inversion. While the harmony functions, undeniably, as a dominant of F#, it is easier, I find, to hear either E# or Gx as the root rather than C# and thus to hear the harmony, rather, as either a dominant VII/F# on E# (VII[8-3-b5-b6/F#] or as a dominant on Gx("A") (#II[8-bb3-b4-b6/F#] or "V[8-3-#5-9]/D"). The inherent ambiguity here is worth considering because, in fact, these other ways of hearing the chord are quite significant. Given that the augmented triad of the harmony does anticipate that of the dominant A harmony at the end of m.41, there is some sense in hearing the Gx(A)-ness of the chord in m.39 as helping, as such, to prepare the movement to follow towards a cadence in D. More immediately, on the other hand, the E# in this chord can be heard to reach forward, as an anticipation (via F#, i.e., E#-[F#-]F) to the root of the F harmony at the beginning of m.40, while its Gx prepares an implied 3rd in the F chord, and its C# can be understood to lead indirectly in m.40 to B#, a "5th" of the F harmony. The C# chord thus has meaning as a variant of "bVI" or V/"bII" of the following F chord, the F# chord to which it leads imitating, in turn, the function of bII/F (i.e., a "Gb" chord). As well, in that its E# also recalls that of the C# harmony of m.38, it also helps mediate the exposed registral connection between the E#'s in the bass register of m.38 and the F's in the bass at the beginning of m.40. The F harmony of m.40 functions, albeit in a veiled way, as V of the Bb harmony of m.41 and thus as a secondary dominant (V/V) in the veiled approach to a cadence in Eb in ms.41-42. Thus the occurrence of the "C#" chord of m.39, from the perspective of its "F"-ness, also helps prepare the approach to the cadence in Eb, and, by way of its mediating the

connection between E# in m.38 and F in m.40, helps implicate the first inversion C# chord of m.38 in that veiled approach as well. Alternatively, by way of its mediating a connection between the augmented C# triad of m.38 and the recurrence of that pc-set as part of the dominant A chord in m.41, the occurrence of the set in m.39 helps implicate the harmony in m.38 in the approach to the thwarted cadence in D. And, as a "Db" chord--i.e., as "bVI"/F or V/"bVI"/Bb (or "bVI"/V/Bb), it is also involved in the anticipation of an approaching cadence in D in that the F and Bb harmonies of ms.40-41 function as bVI/V/D and bVI/D respectively.

Perhaps in attributing such a multiplicity of meanings to the "C#" harmony of m.39 I have compiled precisely the sorts of ambiguities that, in my introductory comments at the beginning of this chapter, I warned against trying to hear. I hope, however, that I have been able to distinguish a kind of hierarchy amongst these meanings which characterizes that vagueness in such a way that my interpretation is not rendered senseless. Moreover, the richness of ambiguity borne by this chord and by the final harmony of 'Helle Nacht' is more extravagant than that borne by any other harmony in the song cycle. And it is, indeed, toward the prismatic wonder of these two chords that the extreme complexity of overlayings of keys in the song cycle is ultimately focussed.

The "C#" harmony of m.39 gives way, then, as V/F#, to the dominant F# harmony (V/B or V/V/E) with which the measure ends. That F# chord, containing a Type I triad--[F#-A#-Cx], reaches back to the F# harmony of the second beat--[A#-C#-E-G] (V7b9/B), the two thus enclosing the "C#" chord as a dominant neighbour harmony so as to prolong V/B in the last two beats of m.39. Were the second of these F# chords to shift to a B-root harmony on the downbeat of m.40, the sense of a tonal centre of B or E in ms.38-39 would be more fully concretized than it is (the root progression in m.39 being essentially iv-V in B or i-V/V in E); such a concretization is averted,

however, and the progression presses forth instead toward a cadence in D, with the root shift F#-F on the downbeat of m.40 (V/V/V/V-bVI/V in D). The Type I component of the second F# chord gives way to the triad [B-D#-Fx] such that the F harmony initially contains a Type VII component--[#4-#6-x8]--, a functional equivalent of a Type I component in a dominant B harmony (V#5/E). However, as suggested above, the F# harmonies are also drawn into producing a veiled approach to a cadence in Eb in ms.41-42 in that the chromatic root movement F#-F imitates a diatonic root shift Gb-F in Bb (bVI-V), thereby helping to substantiate the function of the F harmony as V/V/Eb. (The function of the F# chords in m.39 as "bVI"/Bb is further substantiated by the fact that the 7th (E) in the bass part of the first F# chord can be heard to prepare an implied 7th in second and thus to lead diatonically, via this implied 7th, to the root of the succeeding F chord just as would the #6th of a true bVI#6/Bb.)

The Type VII component of the F harmony then gives way to the triad [E-G#-B#] which functions momentarily as a Type IV--[#7-#9-x4("5")] above the F root. (Note that the sound of a "fifth" created by the doubly-augmented fourth--[F-B#]--formed between the root of the F chord and its x4th helps to substantiate the function of the F root as such.) I hear the root shift F-E in m.40 as occurring on beat 2, so that it is at that point that the triad [E-G#-B#] becomes a Type I component of a dominant E harmony. Such placement of this root shift and the resultant sarabande-like harmonic rhythm in this measure is effected partly by the occurrence there of an E in the voice part, which helps encourage the tendency one has to hear a harmonic rhythm that is congruent with the measure-level triple meter of the piece, and, further, by the preconditioning effect of what is essentially the same harmonic rhythm in the preceding measure.

On the downbeat of m.41 the triad [E-G#-B#] becomes a Type VII triad--[#4-#6-x8]--above a Bb root, the root progression E-Bb constituting an exchange of one

dominant of A for another: V-bII (V/V-bVI in D). Especially important in effecting a balance in the overlaying of approaches to cadences in D and Eb is the absence of a root in the bass part of the E harmony in m.40. Such an E would tend to make it more difficult to hear the shift to a Bb root at all; and, further, the bass part of the E chord helps facilitate the perceiving of a fairly obvious relation of the preceding F harmony, as V, to the succeeding Bb harmony: with the shift to a Bb root on the downbeat of m.41, the 9th (F#) and the 7th (D) in the bass part of the E harmony are understood, in retrospect, to have prepared implied #5th and 3rd components, respectively, of a Type I triad comprised by the Bb harmony at the beginning of m.41. The voice leading F-F# in m.40 is thus understood, when the Bb harmony comes, to have effected the anticipation of a raised fifth in the Bb harmony, while the root of the F harmony itself anticipates, albeit indirectly and via register transfer, the occurrence in the voice part of an unaltered fifth in the Bb harmony.

The Bb harmony of m.41 functions thereby as V with respect to the cadential Eb harmony of m.42. In anticipation of the 5th and 3rd of the latter chord, the occurrence of the octave Bb's and G's in the bass part of m.41--the latter functioning as sixths with respect to the Bb root--begin an arpeggiation of an Eb triad which is completed with the bass Eb's on the downbeat of m.42. The G's anticipate the resolution of the #6th (G#) of the Bb chord, as if it were a 7th (Ab) in a V7/Eb, to the 3rd of I in Eb. More immediately, however, the octave G's prepare the 7th of the dominant A chord (V/D) of the last beat of m.41.

I have been calling the harmony at the end of m.41 a dominant A chord but its function is considerably more complicated than that. Focussed in that chord, the penultimate harmony in the overlaying of the approach to a cadence in D with a veiled approach to one in Eb, is a culmination of all the ambiguity inherent in the root progression from m.39 forward in terms of this referential double tonic. With its

component E's placed in the bass this harmony is essentially a kind of "6/4 chord". As was discussed in Chapter 6, the question of which pitch-class in such a chord functions as root--that in the bass or that a perfect fourth above the bass--is decided with reference to the particular voice-leading context in which the harmony is involved. Even with respect to the D-ness of the passage the question of the function of this chord has two answers. The chord is approached from the preceding E and Bb harmonies, both dominants of A, and could thus be understood as their prolongation, V64/A (or V64/V/D); and the bass E's that, by virtue of their registral placement, reach back to the F's of m.40 which function as suspended b9ths of the E harmony on beat 2 of m.40, could be heard as delayed resolutions of those suspended b9ths. From this standpoint, the root progression in ms.40-41 would be bVI-V in A, with the V prolonged and enclosing a parenthetical excursion to bII#6/A. The occurrence of the Bb harmony (bVI#6/D), of course, helps concretize the presence of D (minor) as a referential key in this passage, and this presence is further substantiated by way of the inclusion in the last chord of m.41 of F and G, anticipations of the b3rd and its upper neighbour, respectively, of the referential tonic D harmony. As a result, we hear the 6/4-harmony as a dominant with root E that reaches forth to V of D minor, and thus as V/V of D minor. This interpretation substantiates a latent function of the Eb harmony to which the chord progresses as itself a dominant bII of D. (Note that the 6th (C#) of the E harmony can be heard to prepare an implied #6th in the succeeding Eb chord, thus making the latter bII#6/D.) Thinking of the harmony at the end of m.42, then, as really a secondary dominant E chord (V/V/D), its augmented-triad component [A-C#-F] becomes a Type XII--[4-6-b9]--with a latent shade of meaning as the Type II component--[8-3-b6]--of V of D minor.

The chromatic root progression E-Eb of ms.41-42 functions then as V/V-bII with respect to a referential D tonic, but, with respect to the referential Eb-ness of the

passage, it imitates the diatonic root movement Fb-Eb. As an "Fb" chord resolving as "bII" to I in Eb whose meaning as such is reinforced by its associations with the dominant-of-Eb harmonies in ms.40-41--the "Fb"(E) harmony ("bII"#6/Eb) and the Bb harmony (V⁷/Eb)--, the harmony at the end of m.41 serves as the penultimate dominant in a cadence in Eb. From the perspective of the approach to a thwarted cadence in D, the root progression from the end of m.39 through to the beginning of m.42 (F#-F-E-Bb-E) functions as V/V/V-bVI/V-V/V-bVI-V⁶⁴/V-bII, while, as a veiled approach to the cadence in Eb, it functions as "bVI"/V-V/V-"bII"-V-"bII"-I ("Gb"-F-"Fb"-Bb-"Fb"-Eb).

The sense that the E⁶⁴ chord in m.41 is an "Fb" chord with respect to the succeeding Eb harmony is confirmed in retrospect by the diatonic root shift Eb-Fb (I-bii) on the third beat of m.42, and by the root shift Fb-Eb (bii-I) on the downbeat of m.44, the latter shift thus echoing, in a diatonic version, the chromatic shift E("Fb")-Eb of the cadence in ms.41-42. (Note that upon the root shift Eb-Fb the pitch-class functioning as a 3rd (G) in the Eb chord changes enharmonically to an Abb, a b3rd of the Fb minor chord. This enharmonic shift is then reversed (Abb-G) upon the return of an Eb root in m.44.)

The first of these Fb chords (m.42) is approached, then, as bii/Eb and the second is left as such, but their occurrences frame an excursion to a Cb chord in the first part of m.43. The resultant root progression Fb-Cb-Fb has the effect of momentarily tonicizing either the Cb harmony or the Fb minor harmony (the Fb chord thus being iv/Cb or the Cb chord V of Fb). Although these harmonies are ultimately heard as bVI/Eb and bii/Eb, the parenthetical allusion to Cb and to Fb minor recalls that at the beginning of the passage in ms.38-39. In discussing the root shift on the downbeat of m.40, I pointed out that its potential to reinforce the suggestion of a referential B (or E) tonic that emerges in ms.38-39, by making the triad [B-D#-Fx] on the downbeat of

m.40, part of a B-root chord (e.g. as either [8-3-#5] or [8-3-b6]) is thwarted by that triad instead being incorporated in an F-root harmony (V/Bb or bVI/A). The [3,7,11] set is, indeed, finally recalled in m.42-43 first as the Type II component [Eb-G-Cb] of the Eb harmony in m.42 and then in m.43 as a Type II component [Cb-Eb-Abb] of the Cb harmony and as an implicit Type IV component--[b3-5-(#7)]--of the Fb harmony. Thus, partly by way of the recalling of this set in m.43 as components of the Cb and Fb harmonies, the progression in B (or E minor), which was interrupted in m.40, is understood as having been momentarily resumed in ms.42-43. The sense of a Cb or Fb tonic is dissolved once again in m.44, with the root shift Fb-Eb drawing the Fb harmony, as bii, back into the key of Eb; but one last allusion to Cb flickers forth in m.45 when the augmented triad of m.43 is recalled to function finally as a Type II component--[Eb-G-Cb]--of a tonic Eb harmony. This final, faint echo of Cb dissolves with the resolution, as an upper neighbour, of the triad's b6th (Cb) to a 5th (Bb) on the second beat of m.46.

A referential background skeletal root progression

Thus far in this chapter I have analyzed quite thoroughly the structural relationships between parts of the root progression spanning the last 10 measures of 'Himmelfahrt'. I regard this passage as a major juncture in the song cycle as a whole. The root progression here comprises tonal effects whose structural implications reach in quite a direct way back to events in the tonal progression through the song cycle up to this point and indeed right through to events in the opening of the first song. The F and E chords in ms.40-43, for instance, correspond in a very significant way to the F and E chords of the first song, where they both function as referential tonic harmonies. Those tonal effects in the passage which are backward-reaching in their large scale implications are woven together, or are congruent, with those the structural

implications of which extend forward into the remaining two songs and indeed right through to the closing events of the last song. For instance, the C# chords in ms.38-39 are related, as I suggested above (p.117), to the C#(Db) harmonies in the last song, 'Helle Nacht'; and the obvious presence of D as a referential tonic in ms.40-42 anticipates the final cadence in D with which the succeeding piece, 'Nächtliche Scheu', ends. Furthermore, the effect of the connections between the C# harmonies of ms.38-39 that correspond to the Db(C#) chord at the end of the last song, on the one hand, and, on the other, the reference in ms.40-43 to events in the opening song is closely related to the effect of tonal completion (in the sense of return) achieved at the end of the last song with respect to the initiations, in the first two songs, of a large scale tonal progression extending through all five songs. I hear in the tonal design of the last 10 measures of 'Himmelfahrt', then, a kind of microcosmic compression of the background tonal design of the song cycle as a whole.

I will begin a consideration of the relationship between the microcosmic tonal order in the last section of 'Himmelfahrt' and a macrocosmic order spanning the 'Dehmel Songs' as a whole by sketching out a fairly concise referential model of a root progression around which the structure of the song cycle is ordered. This large scale tonal progression essentially comprises an unfolding cycle of secondary dominant (V/V or bVI) - dominant (V or bII) shifts, which is realized as a root progression descending in half steps from E in the first two songs, through Eb and D over the course of the next two, and ending on C# in the last song. The progression E-Eb is V/V-bII in D, although it is diatonically realized, in the approach to the beginning of the third song, as E-D# (or Fb-Eb). As it happens, this diatonic voice leading takes the form E-Eb in Example 10, as convenience dictates the enharmonic respelling of the pivotal B harmony (V/V/A), in m.18 of 'Am Ufer' as a Cb chord (bVI/Eb). In fact, the root progression from ms.17 forward should really read E-(B-A#)-D#. Returning to the cycle

that controls the whole, the root shift Eb-D is bII/bVI-bVI in F#, or V/V/V-bVI (D#-D) realized diatonically. And the shift D-C# is bVI-V in F#.

Taking E-D#(Eb)-D-C# as a referential skeletal root progression we can then add the root shift F-E as a prefix to this pattern by virtue of the relationship between F and E harmonies in the first piece in context of the first four songs: recall that F and E harmonies in that song relate to each other as bVI/A and V/A respectively, a relationship anticipating the significance of A as a referential key in the second piece, while, at a deeper level, their relationship as bVI/V/D and V/V/D holds premonitions of the gradual emergence of a D tonic over the course of the first four songs. A literal suggestion of this root movement, E-F, can be heard in the opening harmonic gesture of 'Ideale Landschaft' in ms.1-2 where the pitches F, Fx and C# in m.1 are heard as over the E root as remanents--[8-x8-#5]--of bVI/A which then resolve in m.2 to E, G# and B# respectively--[8-3-#5] in V/A. This allusion to an F chord is then concretized when those "remanents" are recalled as components of an F chord in m.4. At a much deeper level, the entire middle section of the piece, being framed by two F harmonies (m.11 and m.22), does, in some sense, prolong bVI/A, while the last section (ms.23-38) prolongs an E harmony such that ms.11-38 comprises, most essentially, the root movement F-E (bVI-V in A), the shift occurring on the downbeat of m.23.

We now have the skeletal root progression [F]-E-D#(Eb)-D-C#(Db) and to this we can add C#("Db")-C and possibly even C-B. At the ends of each of the three verses of the last song--ms.10-11, ms.21-22 and ms.32-33--the penultimate C# harmony gives way to a C harmony (V/v-bII in B). The root shifts reaching over the refrains between verses 1 and 2 (ms.11-13) and verses 2 and 3 (ms.22-26) are both C-[...]-B (bII-[...]-I in B or bVI-[...]-V in E). Given that the penultimate chord (C#) in each verse is approached via the root progression Eb-D-C#, the progressions in ms.8-15 and ms.19-26

both comprise all but the beginning of the referential skeletal pattern--(F-E)-Eb-D-C#("Db")-C-[...]-B.

Although there is no obvious sense of an E tonic in the last song we can at least hear a faint allusion to that key in the suffix to our skeletal root progression--C#-C-B (V/ii-bVI-V in E)--which emerges in the song. Slightly more tangible allusions in this suffix to a key also present in the opening song are the indistinct intimations of the key of F in the root progression C#("Db")-C ("bVI"-V in F) at the end of each verse. While this chromatic root shift is in itself hardly a convincing reference to an F tonic, the C chord does lead, by way of the D# chord (#"II"bb8/C) with which each of the refrains begins, to another C harmony (bII#6/B) which in turn leads to a true Db dominant of C (bII#6/C). The 3rd (F) of that Db harmony prepares the root of an F chord, the harmony with which the second half of the refrain begins. These circumstances taken altogether tend to suggest a brief presence the key of F extending from the ending of each verse into the first half of each refrain and thereby infusing the root progression C#-C with the quality of a diatonic shift in F, i.e., "bVI"-V ("Db"-C). In that the C harmonies are understood, in the passages bridging verses 1 and 2 and verses 2 and 3, as bII with respect to the B at the openings of verses 2 and 3 respectively, the C# and Db harmonies in those passages function as V/v and bII#6/bII#6 (or V"7"/V), respectively, in B. However, when the passage recurs for the last time, beginning at the end of the last verse, there is no such succeeding B chord. And it is, indeed, not the C# chord but rather the true Db#6 chord of the refrain with which the song ends. Approached, as it is with the root progression C-Db-C-[Db], and with its 3rd (F) sounding in octaves in the bass, the final harmony of the song seems to relate more readily to F as bVI#6/F than to B as bII#6/bII#6 (or V"7"/V/B). Note that the key signature (one flat) designates either F or D as the referential tonic in the song.

The skeletal root progression through the songs thus splits off into strands from the pivotal C harmonies in the last song: one strand continues the descent in half steps--[F]-E-D#(Eb)-D-C#-[C-B], the succession C-B thus reaching, as bVI-V, toward the key of E in which the song cycle begins; the other strand turns back upward by half step from the C harmonies, not chromatically to C#, but diatonically to Db, thus reaching towards the key of F, the secondary key in the first piece. Recall that the overlaying of the keys of E and F in the first song reaches forth to the emergence of the key of A and ultimately the key of D over the course of the succeeding songs. Perhaps, then, in light of the allusions to the keys of E and F in the two endings, in 'Helle Nacht', of the skeletal root progression, the key signature of one flat is really identifying the presence of a D minor harmony as an "invisible" referential tonic key in this piece and, indeed in the song cycle as a whole. (Note that 'Am Ufer' and 'Nächtliche Scheu', too, bear this same key signature.)

The understanding of these two meanings of the C#(Db) harmonies in the last part of the skeletal root progression--i.e. as V/"v"/V/E (or V/ii/E) and as bVI/F (or bVI/bII/E)--sheds some light on the large scale structural significance of two unusual patterns which occur over the course of the first two songs in terms of their relations to events in the closing song. The first of these patterns is the excursion in the key of F in the middle section of the first song to a momentary point of repose in m.17 on bVI/F. That Db harmony stands out in the song cycle in two striking ways: it is one of the very few simple major triads occurring in the songs and it is by far the most widely spaced registrally of any sonority in the cycle. While it is approached as bVI/F, it is left as V/V/V/Fb(E) (or V/ii/Fb(E)), leading to IV/Fb(E), and thus functions as a pivotal seam between the bII- and V-sides of E, i.e., bVI/bII/E = V/V/V/E. In the progression through the middle section of 'Ideale Landschaft', then, the meanings of

the C# and Db harmonies of 'Helle Nacht' with respect to a referential E tonic are, in effect, sewn together.

While the patterns of root shifts at the ends of the skeletal root progression-- C#-C-B and C#-C-Db--in 'Helle Nacht' tend to reach forward along a cycle of fifths (and/or minor seconds) in anticipation of a return of the referential tonics, E and F, of the first song, the excursion by way of F to the Db(C#) harmony of 'Ideale Landschaft' is, in effect, a reaching-back along this cycle in complementary anticipation of the subtle reachings-forward in the last song.

This effect of an anticipatory reaching-back is also achieved in the two root progressions discussed in Chapter 6 (see pp.105-108) with reference to Figure 24. In that discussion I conceived the root progressions in ms.23-27 of 'Ideale Landschaft' and ms.1-9 of 'Am Ufer' as each comprising a recoiling along a cycle of fifths beginning with an E harmony. In the first passage there is a recoiling from the suggestion of an E-root harmony in m.23 through the B-root harmonies in ms.24-25 to the dominant F# harmonies of ms.26-27 (I-V-("v")-V/V in E); and in the second passage, an amplified version of the first, the recoiling extends through the E, B and F# harmonies of ms.1-7 and then beyond to the C# and G# harmonies of ms.8-9 (I - V - V/V - V/V/V - V/V/V/V in E). The dominant C# chords of the skeletal root progression reach towards F# minor as a referential tonic, while the progression in the first passage recoils to an F# major harmony. However, the more extended second passage recoils to the key of F# minor, so that the two segment progression--('Ideale Landschaft' ms.23-27 and 'Ideale Landschaft' m.35 - 'Am Ufer' m.9)--reaches back from an E tonic to the same dominant C# chord (Vb6/F# minor) as that which occurs at the ending of the skeletal root progression proper (E-D#(Eb)-D-C#). The latter, when brought together in the last piece with its two suffixes to that progression (-C-B and -C-Db) reaches ultimately towards a referential tonic E.

Thus, the C#(Db) harmony functions in the song cycle as the focal point of a grand dovetailing: its part in the reachings-forward to E and F resulting from the suffixes to the skeletal root progression--C#-C-B and C#("Db")-C-Db--in 'Helle Nacht' is ultimately anticipated by the reachings-back from E to C#(Db), one by way of the excursion in F to the Db(C#) harmony in 'Ideale Landschaft' and the second by way of the two-stage pattern of recoiling to the C# harmonies of 'Am Ufer' m.8. (Note that, while the reachings-forward to E in the last piece occur at some distance from these reachings-back from E, the span between C# harmonies functioning as the extreme point of recoil from E (in ms.8-9 of 'Am Ufer') and the C# harmony's first occurrence as part of a foreground fragment (Eb-D-C#) of the skeletal root progression (in ms.1-3 of 'Himmelfahrt') is only 14 measures.) This dovetailing of these reachings-back and reachings-forward helps concretize an elusive sense of completion or closure in the last song with respect to the tonal progression through the five songs as a whole.

The closing passage of 'Himmelfahrt' as a major pivotal juncture in the song cycle

Having obtained a fairly concise view of the background design of the tonal structure of the song cycle, we can return to the closing passage of 'Himmelfahrt' to consider how its tonal design and that of the passages immediately surrounding it relate to this broader context. It can now be seen how this passage constitutes the main pivotal juncture in the song cycle: in its overlaying of an approach to a thwarted cadence in D with the consummation of one in Eb, it implies a background shift between the two central components of the main body of the skeletal root progression, i.e., E-D#(Eb)-D-C#. Because the approach to a cadence in D is so strong, and, indeed, more obvious than the veiled approach to Eb, the actual tonic here is really felt to be D such that the cadential Eb harmony is understood as a dominant bII. There is, then,

I feel, really an implied or "invisible" cadence in D here, and if D is to be regarded as the tonal centre of the song cycle, then this is--or, perhaps more precisely, might have been--the main structural cadence of the cycle. Although there is a strong cadence in D in ms.23-24 of 'Nächtliche Scheu', the recurring allusions to the keys of F# and B in that piece, in ms.16-18 in particular, tend to insinuate a bVI function for D thus anticipating the background shift D-C# (bVI-V in F# or bVI/V-V/V in B) which is confirmed in the last piece.

Besides the overlaying of the "invisible" cadence in D with the cadence in Eb, the closing passage of 'Himmelfahrt' also comprises a veiled anticipation of the opening of 'Nächtliche Scheu' on a dominant E chord (V/V/D). Recall that in the introductory chapter (p.10) I conceived the root progression of ms.1-8 of 'Nächtliche Scheu'--V---I in A or V/V---V in D--as a reiteration of the essential root movement in ms.1-7 of the opening song--likewise, V---I in A--and, indeed, of the deeper level root movement E-A comprised by the progression from the opening of 'Ideale Landschaft' through to ms.15-16 of 'Am Ufer'. Given that the progression spanning the first three songs is essentially an approach to the implied cadence in D at the end of 'Himmelfahrt'--E-D#(Eb-[D]) (V/V-bII-[I])--and that, as such, it effects the first three steps in the background skeletal root progression (E-D#(Eb)-D), the root progression E-A-D (V/V-V-I]) which spans the whole of 'Nächtliche Scheu' is essentially a reiteration of this approach to D, with A (V/D) replacing Eb (bII/D). At the same time, this progression comprises an overlaying of the beginnings of the background shift D-C#--the A harmonies doubling as "V"/F#, i.e., as "C#" harmonies.

The progression through the entire middle section of 'Himmelfahrt', ms.14-31, in that it begins and ends in B(Cb), can heard as a large scale prolongation of V/E. As such, it anticipates the beginning of this recapitulation on the dominant E harmony with which 'Nächtliche Scheu' opens. Indeed, the passage closes in ms.30-31 with the

root progression C#(Db)-C-F#-B (V/V/V-bVI-V/V-V#5 in E). The B harmony in m.14, in turn, reaches back to those in ms.5-6 such that the prolongation of B really begins in m.5. If one hears an intimation of the root shift C#-C (V/V-bII in B) in m.4, then the B harmony of m.5 forms the end of a foreground statement in ms.1-5 of the latter part of the skeletal root progression, i.e., Eb-D-C#-C-(F#)-B. The shift from the ending of 'Am Ufer' to the Eb chord in m.1 of 'Himmelfahrt' articulates the shift from E-D#(Eb) in the background statement of the skeleton; and the seam which is sewn, by the reachings-forward and the reachings-back discussed above, between the ending and the beginning of the background pattern--C#(Db)-C-B- / -[F]-E--, is mirrored by the connection between the B harmony in 'Himmelfahrt' m.31, and the E harmony with which 'Nächtliche Scheu' begins. In effect the closing section of 'Himmelfahrt' (ms.31-47) not only articulates the central root shift in the background skeletal pattern (Eb-D)--and, indeed, the main structural cadence of the song cycle--, but it also draws together the ending of a foreground statement of the pattern with a recalling of the beginning of the background statement--F-E("Fb")-Eb (ms.40-42). This drawing together of ending and beginning in the closing section of 'Himmelfahrt' helps, of course, to further concretize a large scale sense of closure in the last song. A consideration of how the connection between the B harmony in m.31 of 'Himmelfahrt' and the E harmony in m.1 of 'Nächtliche Scheu' is achieved will thus shed further light on the relationship between the ending of the song cycle and the beginning.

The consummation of the approach to a cadence in E in ms.29-31 of 'Himmelfahrt' is averted when the dominant B(Cb) harmony of m.31 gives way as bVI(#6)/Eb to V/Eb in m.32. Accordingly, the progression in ms.32-36 then essentially prolongs an Eb harmony, which becomes a dominant bII of D in m.36. The root shift Eb-D of ms.36-37 begins a recalling in ms.36-38 of the root progression of ms.1-5 (Eb-D-C#-). As discussed above, the root shift C#-F# in m.39 reaches as V/V-V towards a B-root

harmony thus recalling the B tonic of ms.29-31, but a B harmony is withheld until m.43 and the F# chord instead gives way as V/V to bII/E (F#-F). The root shift F-E begins a recalling of the first part of the skeletal root shift pattern (F-E("Fb")-Eb) which spans ms.42-43. It is thus the root progression C#-F#-F of ms.39-40 which comprises the juncture between the end fragment of the skeletal pattern (Eb-D-C#-) and the beginning (F-E("Fb")-Eb). The pivotal F# chord recalls the F# harmony of m.31, both in terms of tonal function (V#5/B) and textural setting--octaves in the bass and four-voice augmented triads in closed position in the upper register. Moreover, whereas the Type I component of the latter leads to a Type I B triad at the end of m.31, the former leads to a functional equivalent of that B triad, the Type VII component of an F harmony which in turn leads to the triad [E-G#-B#]. The latter becomes a Type I E triad on beat 2 of m.40. Thus, the root progression F#-F-E of ms.39-40 picks up the pattern which was broken off in ms.31-32 with the root shift B-A# (Cb-Bb), and finishes it with the shift to a dominant E harmony that ultimately prepares the initial harmony of 'Nächtliche Scheu'.

The interruption of the approach to E in ms.30-31, with the root progression B(Cb)-Bb-Eb, effects the taking-up of a reiteration of the statement of the latter part of the skeletal progression, spanning ms.1-31 (Eb-D...). The juncture in m.39, then, by way of the connection between the F# harmonies and the functionally equivalent components of the B and F harmonies, respectively, in m.31 and ms.39-40, and by way of the connection between the C# harmonies in ms.38-39, joins the endings of both patterns to the beginning of a recapitulation of the first part of the skeletal progression in m.40. Furthermore, the occurrence of the Eb harmony in m.1, which begins the first foreground statement of the skeletal root progression, coincides with the shift E-D#(Eb) in the background-level unfolding of the pattern such that the background pattern, which is left reaching towards completion at the end of 'Helle

Nacht', i.e., Eb-D-C#- -[C...-B-?] ~ -[C-Db-?], is overlaid with a compound middleground version of the pattern which completes itself in ms.40-41 of 'Himmelfahrt', i.e., Eb-D-C#-(C)-B-...F-E-Eb-[D]. In that this middleground pattern is then fused momentarily with the background pattern in ms.41-42 to articulate the implied cadence in D, there is an implied sense of large scale closure in ms.42. Therefore, the Db(C#) harmony at the end of the last song is to be heard as reaching, in retrospect, back to the beginning of the progression through the first three songs and, by way of the unfolding of that progression towards an implied D tonic at the end of 'Himmelfahrt', as relating to that D tonic in the same ways as does the C# harmony in m.39 of 'Himmelfahrt'. The latter chord, as a C# harmony, relates to D as V/V/V/V/V by way of its relationship to E (V/V/D) as V/V/V. But it also relates to D as "Db" by way of its relation to the F-root harmony (bVI/V/D or V/V/bII/D or V/bVI/D) in m.40: it relates to F as "bVI" or as V/"bII" and thus to D in several different ways.

Given this implied articulation of closure in m.42 and the unresolved sense of reaching back to the beginning in the last song, there is, I suggest, a retrospective feeling at the end of the last song that the averted cadence in D was actually the end, that the song cycle has, indeed, been broken in the middle ('Helle Nacht' - 'Ideale Landschaft') and the ending fused to the beginning ('Himmelfahrt'- 'Nächtliche Scheu'). Indeed, with an actual D cadence at the end of 'Himmelfahrt', the background progression spanning this alternative sequence would, I think, be quite intelligible, excepting, of course, that the formal effect of the background pattern of root movement would be lost or at least largely obscured, i.e., E-A-D-C#(Db)-[C]-B- / -F-E-D#(Eb)-D. I will now consider further how this fusing of "ending" to "beginning" is achieved.

As discussed above, the B harmony prolonged throughout most of the main body of 'Himmelfahrt' (ms.5-31) reaches forth, by recalling the harmony of m.31 at the juncture in m.39, as V#5 to the E harmonies in ms.40-43. The chromatic root shift E-Eb in ms.42-43 imitates a diatonic progression in Eb--i.e., "bII"-I ("Fb"-Eb)--and that implication is then concretized by the reciprocal but truly diatonic shift Eb-Fb in m.42. This establishing of a diatonic relationship between these two roots helps substantiate the perception of the root motion between the ending of this piece and the beginning of the next--Eb-Fb or D#-E--as diatonic and, hence, as reciprocal to the background root shift E-D# with which this piece begins. The overlaying of B major (or E minor) in ms.42-45 recalls the sense in ms.30-31 and ms.38-39 of the approach to an ensuing E harmony and thereby helps substantiate the understanding that the root progression following, D#-E, is "VII"-I, i.e., that the D# chord imitates the function of a dominant VII in E. The B(Cb) (a b6th) in m.45 leads indirectly to a B# (a #5th) in m.1 of 'Nächtliche Scheu' while the A#(Bb) (a 5th) in ms.46-47 prepares the 3rd of the F# chord in m.1. (Note that this background-level neighbour pattern--E-D#-E (I-"VII"-I in E)--imitates that spanning the opening section of the first song (ms.1-10), i.e., I - VIIb5(m.7) - I.)

The serial skeleton in the first three songs as helping to concretize a sense of recapitulation in 'Nächtliche Scheu'

I want to consider now how the serial patterning spanning the four pieces, and, in particular, in the immediate approach to the cadence at the end of 'Himmelfahrt' and in the two-stage pattern of recoil in the first two songs, helps to concretize this sense of fusion between "ending" and "beginning" by substantiating a connection between the penultimate harmony in the final cadence of 'Himmelfahrt' (m.41) and the opening E harmony of 'Nächtliche Scheu'. In Figure 27 (p.136) I have isolated the

Figure 27. The serial skeleton spanning 'Ideale Landschaft' m.1 - 'Nächtliche Scheu' m.3.

[illegible]

Figure 27. (cont'd)

[illegible]

serial design comprised by the succession of augmented triads and triad-fragments from the opening of 'Ideale Landschaft' through to the opening of 'Nächtliche Scheu'. A triad-fragment, designated with an open box, is a harmonic major third or diminished fourth whose component pc's are not also components of a minor third or a perfect fourth. That is, the missing pc of the augmented triad is in some sense implied or is, at least, not replaced with one a chromatic half-step away. Non-triad sonorities which can be heard to help effect continuity in the serial skeleton are circled. A slur indicates that there are significant voice-leading connections between at least some of the pc's in the sonorities it associates.

As I have already shown in Figure 24, the pattern of recoil in the root progression of ms.23-27 of 'Ideale Landschaft', E-B-F#, comprises a succession of augmented-triads--[E-G#-C] - [B-D#-Fx] - [F#-A#-Cx]. In the reciprocal succession comprised by the complementary return to E in ms.27-29, a fourth triad, [F-A-C#] is added, the succession [B-D#-Fx] - [F-A-C#] thus forming a double neighbour approach to the Type I E triad of ms.29-30. As well, the Type VII triad [F-A-C#] anticipates the shift to its functional equivalent, the Type I F triad of m.31, from the intervening E triad. The Type I E triad is then recalled as a Type II in ms.35-36 to complete the upper neighbour motion [E-G#-B#] - [F-A-C#] -...- [E-G#-C]. The latter E triad is also approached more immediately from its lower neighbour, the implied Type II("I") B triad [B-D#-(G("Fx"))] in m.34. Note a similar version of this pattern in the opening section of the song, where the Type I F triad (m.4) is recalled by its functional equivalent in the D# chord of m.8, the latter returning, as an upper neighbour, to the E triad of m.10. The triad fragment [()-D#-Fx] in m.8, a lower neighbour to the E triad is completed by the fragment [B-D#-(Fx)] in the B chord of m.9. It is evident that these voice-leading effects are recalled by those comprised in the succession of augmented triads from the F# triad in m.39 of 'Himmelfahrt' through to the opening E triad of

'Nächtliche Scheu'. Note, in particular, how the double neighbour patterns in ms.1-10, ms.23-29 and ms.29-35 in 'Ideale Landschaft'--[E-G#-B#(or C)] - [F-A-C#] - [B-D#-Gx] -[E-G#-B#(or C)]--are recalled by the triad-succession from the E triad in m.40 of 'Himmelfahrt' to that in m.1 of 'Nächtliche Scheu', i.e., [E-G#-B#](ms.40-41) - [F-A-C#](m.41) - [B-D#-G(Fx)](ms.42-45) - [E-G#-B#](*'Nächtliche Scheu'* m.1). The succession [F#-A#-Cx] - [B-D#-Fx] in ms.39-40, which introduces the beginning of the double neighbour pattern, recalls that in ms.27-28 in that the latter initiates the turn back towards E via the double neighbour approach in ms.27-28. The recalling of this pattern is, of course, anticipated by the succession [F#-A#-Cx] - [B-D#-Fx] in the thwarted approach to E at the climax of 'Himmelfahrt' in m.31, and the sudden exposures of the serial skeleton upon both occurrences of the F# triad (m.31 and m.39) helps concretize the relationship between the serial effects in the first song and those in the approach to the opening of 'Nächtliche Scheu'.

The sudden exposures of the serial skeleton at these key moments help to emphasize the patterns which begin at these points as significant initiatives towards E and, thus, to concretize the sense of a reaching forth at the end of 'Himmelfahrt' by way of E to the referential D tonic of 'Nächtliche Scheu'. But they are also related in a deeper way to the reachings-back from E to C#(Db) in the first two songs comprised, firstly, by the progression, by way of F, to the Db(C#) harmonies (bVI/bVI/A and V/V/V/V/A) in ms.12 and 17 of 'Ideale Landschaft', and then by the patterns of recoil from an E to an F# harmony (V/V/E) in ms.23- 27 of 'Ideale Landschaft' and from E to the C# and G# harmonies (V/V/V/V/E and V/V/V/V/V/E) in ms.1-8 of 'Am Ufer'.

The bVI/bVI/A and V/V/V/V/A functions of the Db(C#) harmony in m.17 of 'Ideale Landschaft' are, of course, both recalled in the C# harmony in m.39 of 'Himmelfahrt'. It is significant that the approach to the dominant B harmony (V/E) in

m.19 of 'Ideale Landschaft' from the C# harmony of m.17 is not by way of an F# harmony, one which would help concretize the function of the C# chord as V/V/B (i.e., V/V-V-I in B), but rather by way of A- and Bb-root harmonies. This approach intimates the beginnings, concretized more definitively in the root progression Cb-Bb in m.22, of the ensuing emergence of Eb as a referential tonic, this intimation anticipating those comprised by the middleground root progression B(Cb)-Bb spanning ms.8-14 of 'Am Ufer' and by the final root progression of that piece (ms.17-20) as it approaches the opening Eb(D#) harmony of 'Himmelfahrt', i.e., B-A#-[D#].

In a similar way, in 'Am Ufer', in the reciprocal return from the point of extreme recoil on the C# and G# harmonies in ms.15-17 to E-root harmonies in ms.15-17, the B harmony of m.10 is approached via the root shift C#-B. Although the G# harmony of m.9 comprises a functional equivalent of a Type II F# triad whose components F# and A# prepare traces of a dominant of B in the B chord's component 5th(F#) and #7th(A#), there is no literal intermediary F# chord, between the C# and B harmonies, which would firmly substantiate the function of the C# chord at the end of m.9 as V/V/B. Instead the C#(Db) chord is recalled in m.11 to become bVI/V of A#(Bb) so as to help effect the shift from B(Cb) to Bb in ms.10-14--(Db) - Cb - [Db-C-F] - Bb (bII-[bVI/V-V/V-V]-I)--and thus to help prepare the function of the B(Cb) harmonies of ms.17-20 as bVI/D#(Eb). (In m.9 the 9th(A#) and the b5th(D) of what I referred to as a functional equivalent, in the G# chord, of a Type II F# triad actually sound above the 3rd (E#) of the C# chord as implicitly prepared suspensions (6 and b9) such that together with that 3rd they anticipate the Bb harmony of ms.12-14, i.e., its root, 3rd and 5th.)

As well, in the approach from the C# harmony in ms.3-4 of 'Himmelfahrt' to the B harmony of ms.5-6 the sense of the intermediary harmony as being a dominant of B,

I.e., V or bII, is quite obscured and the subsequent root shift B-G# (Cb-Ab) brings back the presence of Eb as a referential tonic, i.e., Cb-Ab is bVI-IV in Eb.

The absence of an unequivocal dominant of B, and, in particular, of a Type I F# triad, in all of these progressions linking C# and B harmonies helps subvert the sense of a continuity of a progression in E (or A) emanating from the C# harmonies, i.e., the sense of the C# chords as reaching towards E as V/V/V. The missing Type I F# triads are replaced in ms. 17-22 of 'Ideale Landschaft' and ms.8-14 of 'Am Ufer' with an ST-related Type I Bb triads placed after the B(Cb) chords so that the progressions draw instead toward the key of Eb as bVI, thereby anticipating the background shift in the skeletal root progression from E-D#(Eb) at the opening of 'Himmelfahrt'. (Note that the Db harmony in m.17 of 'Ideale Landschaft' is also approached from a Bb harmony-- IV/F (or V/Eb ?). Also, recall that the A# harmony (VII/B) of 'Ideale Landschaft' m.20 is a variant of a dominant F# harmony (V#5/B).) The B harmonies are thus turned to reach towards D not as V/V/V but rather as bVI/bII thus making the C# harmonies V/V/bVI/bII or bVI/V/V/bII.

With regards to the serial skeleton of the progression represented in Figure 26, this manner of the turning of B(Cb) towards Eb as bVI is significant. The serial skeleton of the progression from the opening of 'Ideale Landschaft' through to m.9 of 'Am Ufer' is essentially a descending succession of four Type I augmented triads comprised by a root progression moving away from E, i.e., E-B-F#-C#, with a prefix of a Type I F triad (e.g. m.4) and a suffix, in ms.8-9 of 'Am Ufer', of a Type I G# triad and the fragment of a functional equivalent of a Type I D# triad (VII/G#, a substitute for V#5/G#), i.e., ([F-A-C#]) - [E-G#-B#] - [D#-Fx-B] - [Cx-F#-A#] - [C#-E#-Gx] - ([B#-Dx-G#] - [Ax-()-Fx]). The pattern of descent is then continued with the shifts from the Type I C# harmony at the end of m.9 to the Type II and Type I B triads in ms.10-11, and then to the Type I Bb triad in ms.12-14. The insinuation of Eb in the

last shift, however, prepares the transformation of the Type I B triad at the end of 'Am Ufer' into the Type I D#(Eb) triad in m.2 of 'Himmelfahrt' such that the prevailing serial skeleton in ms.1-6 becomes a descending succession of augmented triads in a root progression moving towards E, i.e., [Eb-G-B] - [D-F#-Bb] - [C#-E#-A(Gx)]-...- [B-D#-Fx] - (E?). (Note that if the "missing" Type I F# triad were present in ms.4-5 of 'Himmelfahrt' and in ms.9-10 of 'Am Ufer', the continuity of this descending succession would be interrupted.) The anticipations of Eb in 'Ideale Landschaft' and 'Am Ufer' thus prepare the change in the tonal meaning of the serial pattern of descent from a moving-away-from-E to a moving-towards-E to prepare the consummation of the background neighbour motion E-D#-E spanning the progression through to the opening of 'Nächtliche Scheu'.

The sudden unprecedented exposure of the serial skeleton at the climax in 'Himmelfahrt' m.31 dramatically lays bare the pivotal function of the Type I B(Cb) triad by juxtaposing the splendid unveiling of the "missing" Type I F# triad (from which it is approached as V/E) with an immediate withdrawal to Eb(D#) by way of a Type I Bb(A#) triad, an ST-relative of the F# triad. The half-step upward from the F# triad to the B triad recalls a similar motion in m.27 of 'Ideale Landschaft', one which initiates the return to the Type I E triad in m.29, the reciprocal movement to the recoiling from E in ms. 23-27. The upward shift in m.31 of 'Himmelfahrt' anticipates a reversal in the direction of movement in the serial skeleton when it emerges again, exposed in the ascending succession of triads emanating from the C# harmony in m.39. (The C# and G# harmonies in ms.38-39 recall those at the extreme point of recoil in ms.8-9 of 'Am Ufer'. The reciprocal return from that recoil, which was thwarted by the withholding of an F# harmony to link the C# and B harmonies in ms.9-10 and by the subsequent turn towards Eb, emerges finally in the return from C# to E and beyond towards the implied cadence in D, realized by the ascending succession of augmented

triads in ms.39-41.) In m.39, the Type I F# triad spans the link between the Type I C# triad and the functional equivalent of the Type I B triad in the succeeding F-root harmony, thereby recalling the "missing" F# triad of m.31. The succession terminates with the Type XII component--[A-C#-F]--of the penultimate harmony of the cadence in ms.41-42, the counterpart of that with which the large-scale recoiling pattern "begins" in m.27 of 'Ideale Landschaft'. The Type I Eb triad of m.42 is transformed in ms.41-42 into a Type II Cb(B) triad--[Cb-Eb-Abb], the counterpart of the Type I B triad in m.26 of 'Ideale Landschaft'. The B triad is then recalled in m.45 as the Type II component [Cb-Eb-G] of "VII"/Fb(E) such that the two triads--[F-A-C#] and [B-D#-Fx] ([Cb-Eb-G])--form the double neighbour approach to the opening Type I E triad of 'Nächtliche Scheu'.

The serial skeleton spanning the first three pieces, then, comprises a highly amplified version of the serial pattern spanning ms.22-29 of 'Ideale Landschaft' and compressed versions of the skeletal root progression spanning the song cycle as a whole. The one pattern, initially a descending succession of augmented triads in a root progression moving away from E, intersects at the pivotal C# and B chords upon the turn back towards E ('Am Ufer' ms.9-11), with the other pattern which likewise is, initially, a descending succession, but one moving towards E via the key of D#(Eb). The two patterns converge again when the F# triad, which was withheld in the first stages of both, is brought forth to link the pivotal C# and B chords such that both patterns are completed together as an ascending succession of augmented triads leading through the implied cadence in D to a recalling, in the opening of 'Nächtliche Scheu', of the triad with which both patterns begin.

An overlaying of the skeletal root progression--[F]-E-D#(Eb)-D-C#("Db")-[C-B]--
with a continuation of that pattern--[C#(Db)-(C)-]-B-Bb-A--in 'Ideale Landschaft'
- 'Nächtliche Scheu'

If we hear in retrospect the reachings-back from E to the Db(C#) harmony of m.17 of 'Ideale Landschaft' and the C#(Db) harmonies of ms.8-9 of 'Am Ufer' as anticipations of the Db and C# harmonies of 'Helle Nacht', then we also hear in retrospect, in the way those earlier Db(C#) harmonies are left, an extension of the skeletal root progression beyond C# to B and A#(Bb), and ultimately to A. A background-level version of this extension indeed spans the first four songs, ending with the dominant A-root harmony in ms.16-16a of 'Nächtliche Scheu'. That extension is first referred to in 'Ideale Landschaft' in the foreground pattern of withdrawal from the Db(C#) chord of m.17 to the B harmonies of ms.23-24. The Db(C#) chord gives way to an A harmony in m.18, but by way of a momentary allusion to a B#("C")-root harmony on beat 1 of that measure. The root progression from the A chord through to beat 2 of m.21 then articulates a step-wise ascent from A to Db thus comprising a retrograde version of the extension pattern--[C#-B#]-A-Bb-B-(A#)-B-C-Db. The Db harmony in m.21 then leads, by way of an Fb chord on beat 3, to the root progression Cb-Bb in m.22, the latter being the first of four significant instances of that root-shift pattern occurring over the course of the first four songs. It occurs again ms.10-14 of 'Am Ufer' in the withdrawal from the C# harmony of m.9, i.e., [C#]- B-(C#(Db-C)-Bb-[A], and in ms.17-20, both of those occurrences preparing the turn to Eb in 'Himmelfahrt'. And it recurs a third time in the turn towards to Eb in m.31-33 of 'Himmelfahrt', approached there via the F# harmony of m.31 from the root progression Db-C at the end of m.30. The root shift Bb-A is alluded to approaching the final cadence of 'Himmelfahrt' in the progression from the Bb chord of m.41 to the E64 chord at the end of the measure. And in ms.4-6 of 'Nächtliche Scheu' we hear once

again a retrograde version of the extension pattern--Bb-B-C#-- , with the A("C#") harmony of m.8 forming a completion to this reference: Bb-B-C#-[D-E]-A("C#"). The Bb-A("C#") pattern occurs more definitively in ms.14-16a of 'Nächtliche Scheu' in the approach to the double cadence in D and F# of ms.16-18: Bb-[G]-A-[Eb]-Bb-A("C#")-[F#-D-...]; and then another interrupted version of Bb-A is heard in ms.20-23 in the approach to the cadence in D in ms.23-24: Bb-[E-G]-Bb-[E]-Bb-[G]-A("C#")-[D("F#")-B-...].

The root progression Bb-A 'Nächtliche Scheu' ms.14-16a, conceived as an approach to D (bVI-V), constitutes the completion of a background-level unfolding of an extension of the skeletal root progression--C# - [-B#(C)-] - B(Cb) - Bb - A--which spans the first four songs. But the A chord here, as part of an approach to F# and ultimately to B, also imitates the function of a dominant V of F# (or V/V/B)--i.e., "V[b3-3-b5-#5(b6?)-7]/F#--and as such it helps concretize the perception of the background shift from D to C# in the skeletal root progression and the perception of D as reaching towards B as bVI/V. Thus over the course of the first four songs we hear an unfolding of the background skeletal root progression proper--[F] - E(Fb) - Eb - D - C#--which forms an approach to F# minor at its end (i.e., ...bVI-V), but which is overlaid with an unfolding of a continuation of that pattern which extends through to A to form an approach to D--C# - [B#(C)-] - B(Cb) - Bb - A. The two unfoldings converge then in the A ("C#")-harmony in ms.16-16a such that in the cadence of ms.16-18 we hear the background root progression as, in effect, gobbling up its tail in that the cadence reaches both toward D as a tonic and, at the same time, beyond D to F# and B. A foreground-level recalling of this effect occurs in ms.23-25: G-A("C#")-D-"F#"-B-E-A-D-"F#"-..., i.e., IV-V - I - "V"/V/V/V - V/V/V-V/V-V - I - "V"/V/V/V - ... in D and bVI-"V"/V - bVI - "V" - I - [...] - bVI - "V" - ... in B.

Meaning(s) of the closing Db(C#) harmony of 'Helle Nacht' in a referential tonic key of D minor

The closing Db(C#) harmony of 'Helle Nacht', then, stands in the key of B in a relationship with two different D harmonies. It could resolve deceptively as V/V/B to a D chord which is bVI/V/B. However, as a harmony reaching towards a tonic D harmony, it stands at an extreme point of remove around the circle of fifths from that tonic. But, in light of all that has come before, how is it related to a D tonic?

Because of the dense overlaying of keys in the circuitous approaches to D spanning the first four songs, virtually all of the harmonies by way of which it reaches forth to D have, as does the C#(Db) harmony itself, pivotal V=bVI or bVI=V meanings. Thus they all relate in more than one way to the Db(C#) chord, on the one hand, and, on the other, to a tonic D harmony. Take, for instance, the relations of Db(C#) chords to the pivotal Bb harmonies in the song cycle. As C# chords they relate to those as either V/V/bII--C#-F#-B(Cb)-Bb--or V/"bVI"--C#-F#("Gb")-(F)-Bb--, and, as Db chords, as either bVI/V--Db-(C)-F-Bb--or bII/bII/bII--Db-C-B(Cb)-Bb. The Bb chords, in turn, relate to a D tonic as either V/bII--Bb-Eb-D or bVI--Bb-(A)-D. In light, then, of the various ways in which progression by way of Bb from C#(Db) harmonies towards a D tonic is heard to occur in the first four songs, the closing Db(C#) is left reaching around the circle of fifths (and/or minor seconds) toward a D tonic in eight different ways. But a D tonic is also approached by way of E harmonies which relate to D either as V/V or as "bII"/bII--"Fb"-Eb-D--, while the Db(C#) harmonies, in turn, relate to E variously as bII/bVI--Db-C-(B)-E--, as bVI/bII--Db-(C)-F-E--, as V/"bII"/bII--C#-F#("Gb")-F-E--, or as V/V/V/V--C#-F#-B-E. Listed in Table 4 (p.146) are most, and perhaps all, of the ways that the closing harmony of 'Helle Nacht' can be understood to relate to the D tonic of the song cycle. Since each of the individual root shifts listed do, indeed, occur, or are implied in some way, in the dense overlaying of keys in

the progression beginning with the root shift Db-C at the end of m.30 of 'Himmelfahrt' and extending through to the opening of 'Nächtliche Scheu', a C#(Db) harmony can be heard, in this passage, to relate to the implied D tonic in the cadence in ms.41-42 in all of these ways.

Table 4. Various meanings the closing Db(C#) harmony of 'Helle Nacht' can be understood to have in the key of D minor.

C#(Db):

bVI/bVI/V/D:	{Db - (C)	- F	- (E)	- A - D}
bVI/bII/"bII"/bII/D:	{Db - (C)	- F	- E["Fb"	- Eb - D}
bVI/V/V/bII/D:	{Db - (C)	- F	- Bb	- Eb - D}
bVI/V/bVI/D:	{Db - (C)	- F	- Bb	- (A) - D}
bII/bII/V/V/V/D:	{Db - (C)	- B	- E	- A - D}
bII/bVI/"bII"/bII/D:	{Db - C	- B	- E["Fb"	- Eb - D}
bII/bII/bVI/bII/D:	{Db - C	- B[Cb - (Bb)	- Eb - D}	
bII/bII/bII/bVI/D:	{Db - C	- B[Cb - Bb	- (A) - D}	
V/V/bII/bVI/D:	{C# - F#	- B[Cb - Bb	- (A) - D}	
V/V/bVI/bII/D:	{C# - F#	- B[Cb - (Bb)	- Eb - D}	
V/V/V/"bII"/bII/D:	{C# - F#	- B	- E["Fb"	- Eb - D}
V/V/V/V/V/D:	{C# - F#	- B	- E	- A - D}
V/"bVI"/bVI/D:	{C# - F#["Gb"	- (F)	- Bb	- (A) - D}
V/"bVI"/V/bII/D:	{C# - F#["Gb"	- (F)	- Bb	- Eb - D}
V/"bII"/bII/"bII"/bII/D:	{C# - F#["Gb"	- (F)	- E("Fb"	- Eb - D}
V/"bII"/bVI/V/D:	{C# - F#["Gb"	- F	- (E)	- A - D}

The pivotal function of D major harmonies in anticipation of the referential C and B tonics in 'Helle Nacht'

I shall now consider how the D major harmony, besides reaching toward the key of B as bVI/V , functions also as secondary dominant to C, and thus, of how intimations of that pivotal function--i.e., as $bVI/V/B$ and $V/V/C$ --in 'Himmelfahrt' and 'Nächtliche Scheu' anticipate the overlaying, in 'Helle Nacht', of progressions in B with those in C. We have seen that root shifts down a minor second in these songs almost invariably prepare ensuing references to their tonic harmonies to which they relate as $bVI-V$ and/or $bVI/V-V/V$ progressions. For example, the motivic shift $Eb-D$ alludes to the momentary presence of G and possibly to the presence of C as referential tonics. The slight hint of a C chord in the last part of m.4 of 'Himmelfahrt' concretizes the understanding of the progression in ms.1-5 as an approach to B overlaid with a veiled approach to C--i.e., $bVI/V-V/V$ -"bII"-(I?). The sense of the presence of a referential C tonic in the shift $Eb-D$ is more clearly substantiated in ms.9-13 in that the root progression $D-Eb-D$ of ms.9-10 is understood in retrospect as $V-bVI-V$ with respect to the G harmonies (V/C) in ms.10-11. The overlaying of allusions to both B and C in the root progression $Eb-D-C\#$ --or $C\#-D-Eb$ (ms.7-8)--is itself, of course, an anticipatory reference to an E tonic, C and B being bVI/E and V/E respectively.

When that root progression, $Eb-D-C\#$, returns in ms.6-9 of 'Helle Nächte' the presence of a C tonic is much more apparent in that the Eb chord is approached from a pivotal dominant G chord ($bVI/B = "V"/C$). The root shift $Eb-D$ and its reciprocal, the shift $D-Eb$ in m.13, in that they intimate a referential C tonic, help substantiate the sense of the root progression spanning ms.6-14-- $G-Eb-D-C\#-C-D\#-C-Db-F-D-Eb$ --as a pattern in C--i.e., $V-bVI/V-V/V$ -"bII"-I-#II-I-bII-IV- $V/V-bVI/V$ --overlaying an approach in B to the B harmony in m.14-15 such that ms.4-14 is understood to comprise a background neighbour motion, $B-C-B$ ($V-bVI-V$ in E). (Note that this

allusion to E is overlaid with a reference, in the pattern in C, to an F tonic, the root progression "Db"-C-Db-F in ms.9-13 being bVI-V-bVI-I in F. This overlaying of allusions to the keys of E and F (V and bVI in A) constitutes a recalling of the referential tonic(s) of the first two pieces.)

We can hear implied cadence at the end of 'Himmelfahrt' as not only as bII-(I) in D but also as bVI-(V) in G and, therefore, as anticipating a veiled tonicization of G minor in 'Nächtliche Scheu'. The overlaying of D with F# in ms.15-20 of 'Nächtliche Scheu' itself overlays a background root progression in G framed by two brief G minor chords (m.14 and m.21)--i-V/V-V-i. (Note the exposed registral connections between the octave G's in the l.h. parts of m.16a, m.21 and m.23.) The background root progression in the approach to ms.21-23 from the final cadence of 'Himmelfahrt' is essentially bVI-(V)-[...] -V/V-V-i in G minor. (The Eb harmony of the cadence in 'Himmelfahrt' is in fact recalled very briefly in m.15; hence the progression in ms.14-18 is ...bVI/v-i-V/v-bVI-bVI/v-V/v-[...] -V in G minor.)

The occurrence of a dominant G chord in m.23 of 'Nächtliche Scheu' anticipates the referential C tonic in the opening measures of 'Helle Nacht', helping to concretize the function of the earlier song's closing D harmony as V[9]/V/C and that of the opening D# harmony of 'Helle Nacht' as a dominant #°II[b4("3")-5-bb8]/C. The root progression C#[9-3-5-7]-D in ms.25-26 recalls the progression "C#"-[F#]-D in ms.16-18; the voice leadings E-D# and D-D# in the progression in m.25--bVI-V7-i[b3]-V[9]/V in B--anticipate those spanning the connection between these two last songs--V/V[89]-#°II[8] in C. The neighbour motion E(in V[9]/V/C) - D#(in #°II[8]/C) - E(in I[3]/C or bVI[3]/E) recalls the essential root progression in the opening section of 'Ideale Landschaft' and that spanning the root progression which links 'Ideale Landschaft' and the beginning of 'Nächtliche Scheu'.

The root shift D-D# connecting these last two songs, on the other hand, recalls in retrograde the implied cadence at the end of 'Himmelfahrt'. And, indeed, the continuation of the stepwise ascent from D# in the upper voice of ms.1-2--i.e., [D]-D#-E-F-F#--recalls in retrograde the stepwise descent of the root progression in the immediate approach to that cadence--i.e., F#-F-E("Fb")-Eb-(D)--, while the ascent up to the F in m.1 recalls in retrograde the descent in the background skeletal root progression from F to D. The opening refrain of 'Helle Nacht' as a whole prolongs a D#\Eb harmony--#"II"-[...] -bVI/V in C-- which anticipates the beginning of the root progression Eb-D-C#("Db")-C-[...]-B spanning ms.8-15. The voice leading in this first refrain thus has an intermediary function in that it connects the beginning of the background skeletal root progression with a continuation through to B in 'Helle Nacht', i.e., F-E-D#(Eb)-[D]-D#\Eb-[...] -Eb-D-C#("Db")-C-[...]-B.

The overlaying of veiled tonicizations of D minor and G minor in 'Himmelfahrt' - 'Nächtliche Scheu'

While it is plausible to hear 'Nächtliche Scheu' in D major, the allusion to G in the implied D cadence at the end of 'Himmelfahrt' and the concretization of that allusion in the veiled tonicization of G minor in 'Nächtliche Scheu' suggest hearing the D major harmonies in the latter piece as V/iv in the key of D minor. (Note that the F's in the harmonies of ms.40-41 of 'Himmelfahrt' and of 13-16a and ms.22-23 help prepare cadences in D minor.) 'Nächtliche Scheu', then, would comprise an overlaying of D minor with an intimation of the key of G minor. The sense of D major as a tonic key is also clouded by the overlaying of F# (V/B), in ms.16-18 in particular, which draws the D major harmonies into B as bVI/V. There is, however, no real sense of the G minor harmonies as reaching elsewhere: if the D major harmonies help tonicize G then the G minor chords do not help tonicize the D major chords. And, with regards

to the overlayings of references to B, the G minor chords do not substantiate those references either; if anything, they help subvert them in that they contain Bb's. The dominant F# chords in the piece are drawn back into D major--as are those in 'Himmelfahrt' (e.g. those in m.31 and m.39)--either, by way of Bb, as "bVI"/bVI/D (ms.1-4, ms.8-17 and ms.18-20)---or, by way of B and E, as V/V/V/V/D (ms.1-8 and m.24). Thus the case is rather that the B, F#, C# and "C#" harmonies are drawn ultimately by way of D major into the veiled tonicization of G minor.

The concretization of the V/V/C function of D overlaid with concretizations of its functions as bVI/V/B, ultimately implies the referential key of E (C and B being bVI and V, respectively, in E). However, D only becomes V/V in C upon the occurrence in m.23 of a dominant G chord--i.e., V/C or bVI/B (as in ms.5-7 of 'Helle Nacht'). The G minor chords, in that they comprise Bb's rather than B's, do not help concretize a significant presence of the key of C and, hence, a sense of V/V in the D chords. There is certainly a dialectic of enharmonic shifts back and forth between A# and Bb (A# being a leading tone to B) running throughout this piece--e.g. in ms.1-4 and ms.14-24--, but the voice-leading approaches to and withdrawals from the G minor harmonies are such that they obviate any sense of #9's in those G chords, i.e., any sense of V#9/C. It is only upon the root progression A-G in ms.22-23, and the chromatic half step Bb-B in particular, that the sense of D as V/V becomes apparent.

The sense of hearing F# minor as the "invisible" tonic key of the song cycle

The veiled tonicization of G minor in the progression from the cadence at the end of 'Himmelfahrt' through to m.21 of 'Nächtliche Scheu', then, constitutes the completion of a background level approach to G minor spanning the first four songs. The overlaying of D minor with G minor in 'Nächtliche Scheu', however, also forms the end of a cycle of passings-through minor keys in the first four songs, a cycle which

comprises all of the minor keys spanning the circle of fifths from F# to G, i.e., F#-B-E-A-D-G. In the initial recoiling pattern of ms.23-26 of 'Ideale Landschaft', for instance, the F# harmony of m.26 is approached as V of B minor (m.25). The movement from A minor to F# minor in 'Am Ufer' (ms.1-8) is by way of B minor (m.7) while the return to A minor (ms.8-15) is by way of E minor. If G minor is iv of D minor in 'Nächtliche Scheu', then, perhaps the progression through 'Himmelfahrt' really accomplishes a shift from A minor in 'Am Ufer' to iv and iv/iv of A minor, A minor in turn being iv/iv/iv in F#, thus making G minor iv/iv/iv/.../F# minor. The progression from G minor in ms.14-22 in 'Nächtliche Scheu' through to the C#[b6] harmony (V of F# minor) in ms.9-10 of 'Helle Nacht' would thus be understood to comprise a reciprocal return, anticipated in by the C#[b6] and "C#[b6]" harmonies in 'Nächtliche Scheu' to the F# minor key of ms.(7-)8-9 of 'Am Ufer'.

Being posited here, in effect, is the possibility of thinking of, not D or G minor, but rather F# minor as the referential tonic key in these songs. Such a notion would involve hearing most, perhaps all, major chords with a dominant V function as actually some version of V/iv/i, as indeed we hear the D major harmonies as such in 'Nächtliche Scheu'. Thus, for instance, the opening E harmonies of 'Ideale Landschaft' would be V/V/iv/iv/i (E/A/d/a/e) in E minor, and those in m.10 and ms.35-38 would be V/iv/i (E/a) in E minor. The presence of E minor as a referential key is, of course, substantiated by the overlayings in the song of progressions in C (bVI/e), e.g. in ms.4-9 and ms.31-34. (Note too that Webern has assigned the key signature of E minor to the piece.) In ms.23-29 we would hear a root progression in B minor: V/V/iv/iv/i (B/E/a/e/b) - i - V/V/V/iv/i (F#/B/E/a/e/b) - V/V/iv/i (B/E/a/e/b) - V/V/iv/iv/iv/iv/i (E/A/d/a/e/b). And the progression in ms.7-10 of 'Am Ufer' would be a progression in F# minor: V/iv/i (F#/b) - iv (b) - V/iv (F#/b) - V/i (C#/f#) - V/V/i (G#/C#/f#) - VII/V/V/i (Fx/G#/C#/f#) - V/V/i (G#/C#/f#) - V/iv/iv (B/e/b/f#). The B harmony in

m.11 (like that in m.6), with its C#(9) and E#(#4), is V/V/V/D and thus would be V/V/V/iv in d minor. (Note the recurrence of this chord in m.5 of 'Nächtliche Scheu' where it does indeed have this function.) With respect to the referential tonic F# minor harmony of m.8, then, it would be V/V/V/V/iv/iv/iv/iv/iv/i (B/E/A/D/g/d/-a/e/b/f#). From the extreme point of recoil on the Fx harmony (m.9), then, to the extreme reach of the B harmonies (m.6 and m.11) to a G minor harmony, the progression in ms.1-11 spans the whole circle of fifths.

The pattern of recoil from E to Fx in the first two songs, followed by a return to E and then a reaching beyond by way of D#(Eb to D and G minor in 'Nächtliche Scheu', is, therefore, really a progression which accomplishes a veiled recoiling around the circle of fifths of minor keys from F# to G minor. The overlaying of the key of B in 'Nächtliche Scheu' then effects a turning of D major (V/iv/d) back towards F# minor, and beyond to its iv, i.e., as bVI/V/iv/F#. The root progression (D)-D#\Eb-D-C# spanning ms.1-9 of 'Helle Nacht', indeed links the C#b6 harmony (Vb6/f#) of ms.9-10 with the closing D harmony of 'Nächtliche Scheu', thus concretizing the sense of closing this veiled recoiling from F# minor to D and G minor with the definitive consummation, in ms.8-9 of 'Helle Nacht', of the background level shift in the skeletal root progression from D to C#, i.e., bVI-V in F# minor.

Remember, however, that the Db(C#?) harmony with which 'Helle Nacht' closes is actually not that of ms.9-10, i.e., a dominant Vb6 of F# minor, but rather that of the refrain. The root progression C#-C-(D#)-C-Db linking the end of each verse to a subsequent refrain and, finally, the end of the last verse to an expanded version of the refrain, in the coda (ms.33-47), ending on the Db chord, effects a transformation of the Type II component of the C# harmony ([C#-E#-A]) into a Type I of the Db harmony ([Db-F-A]). That closing Db chord, approached as it is as a dominant augmented-sixth harmony (8-3-#5-#6), is then not literally a dominant V of F#(Gb) but

rather bII of C. Even as a dominant V it would, with its #5th, be a dominant of F#(Gb) major and hence, given the way such a harmony functions in m.39 of 'Himmelfahrt' and in m.9 of 'Am Ufer', it would reach beyond F#, in the ways listed in Table 4, to D, by way of B or F, and beyond to G minor. In light of the way it is approached through the course of the song cycle I think it can be heard as reaching towards a tonic F# minor harmony but by way of a progression involving a complex series of overlayings of V/V and bVI relationships which reaches its most prismatic extreme in the immediate approach to the implied bVI-V cadence in G minor at the end of 'Himmelfahrt', that progression towards G minor in turn veiling a series of iv-iv/iv movements around the circle of fifths away from F# minor. Thus, put quite simply, the closing Db harmony reaches towards F# minor, not as V, but rather from perhaps the farthest possible distance from F# minor as some version of V/V/V/.....iv(g)/iv(d)/iv/.....i(f#).

However, arguable the notion of G minor as reaching back as iv/iv/iv... towards an F# minor tonic, it does account, however vaguely, for the otherwise odd patterning of passings-through minor keys that underlies the harmonic progressions in these songs. The introductory chapter quotes Webern's reference to a sonata movement that he composed during the summer of 1906, just a few months after he had begun work on 'Ideale Landschaft'. Recall that in one of his lectures of 1933 he said that in the composing of that piece he had reached "the farthest limits of tonality," that "The key, the chosen tonic note, is invisible--'suspended tonality!' But it was all still related to a key, especially at the end, in order to produce the tonic. The tonic itself was not there--it was suspended in space, invisible, no longer needed. On the contrary, it would already have been disturbing if one had truly taken ones bearings by the tonic." These remarks support an effort to take one's bearings in these songs, however disturbing it might prove to be, with reference to an invisible tonic triad in F# minor. My hope has

been that in studying these early compositions of Webern as tonal pieces I might come to a relatively clear understanding of what Webern was trying to say in the phrases: "the farthest limits of tonality," "suspended tonality" and "the chosen key note was invisible". I have suggested how one might best hear the closing Db harmony of these songs as standing both suspended at perhaps the farthest possible remove from, and, at the same time, reaching retrospectively--in perhaps any, or many, or even all, of the ways conceivable--towards a referential F# minor tonic harmony.

That referential key is truly invisible in the sense, also, that an unequivocal F# minor triad is never heard in any of the songs. An F# minor triad is heard for the first time only implicitly in m.8 of 'Am Ufer', as part of a prolonged C# harmony (V[8-3-4-b6]/f#). An implicit F# minor triad occurs again on beat 3 of m.8 of in 'Nächtliche Scheu', where it is approached from a dominant A chord--V#59/D--which, in leading to an F# chord, imitates the function of V/F#. The function of the A tetrad as "Vb67"/f# is indeed anticipated by the occurrence in m.6 of a true such dominant of F# minor. But the perception of the A root as preparing a b3rd (A) in the F# harmony in the lower register is obscured in that the voice leading B-A# in the upper register brings forth an F# major harmony to hide the presence of the F# minor triad. A similar effect is comprised by the cadence in ms.16-18, which articulates the background-level consummation of the "snake's gobbling of its tail". There the root of the dominant A chord (or the "b6th" of the "C#" chord) in ms.16-16a leads in m.17 to the pitch-class Webern calls a "Bb" which in turn leads as such to the 5th(A) of a D chord in m.18. However, the perceiving of that pitch-class as a component "A#" of the F# harmony in m.17, that is, as the "3rd" of "V"7/b, and the shifts back and forth between G# and A that accompany the root shifts back and forth between F# and D serve to hide the implicit presence of F# minor triads in ms.17-18. Much the same sort of hiding effect is comprised as well by the corresponding measures of the opening section of the song

ms.1-3. The referential gender of the F# harmony in m.3, in particular, is clearly minor; that is, the 9th (G#) of that chord, being approached from the 5th of a D chord and leading to the 3rd of an F chord, is understood as a lower neighbour to an A. While the "Bb" of ms.1-2 does eventually lead to an A in m.3 it is prepared at the end of 'Himmelfahrt' as an A# (i.e., as the 5th of a D# triad) and thus its function as a b4th (Bb) of an F# minor harmony is sensed only in retrospect.

An implicit F# minor triad can be heard to recur twice again in 'Helle Nacht', first, but for just an instant, on the downbeat of the final measure of verse 1 (m.10)--its implied 5th and b3rd (C# and A) being prepared at the end of the preceding measure (as b6 and 8 of Vb6/f#)--before dissolving into a C chord on beat 2, and then in a similar way at the corresponding spot at the end of the third verse (m.33).

Recall that in my discussion of the "missing Type I F# triad" (pp.139-141) I pointed out that even references to F# major chords--what I have since characterized as the V/V/iv/iv version of this F# minor triad, i.e., V/V/e--are kept as passing allusions (e.g. ms.9-10 of 'Am Ufer' and ms.4-5 of 'Himmelfahrt') until the climax in m.31 'Himmelfahrt', and even there the Type I F# triad (V#5/B) is dramatically unveiled only to be immediately transformed in the succeeding measure into an ST-related Type I A#(Bb) triad (V#5/D#(Eb)). Note too the very elusive passings of dominant F# chords in m.3 and m.5 of 'Helle Nacht' and the corresponding points later in that song, i.e., in ms.13-14 and m.16 and then in m.25 and m.27.

If the syntax of harmonic structure in these songs does indeed in some sense effect a "suspended tonality," then the manner in which Webern seems to have very deliberately rendered especially "invisible" the subtle references to F# harmonies, and to F# minor harmonies in particular, suggests, I think, that my vague to hear the progression as veiling a succession of minor keys moving away from F# minor around the circle of fifths may prove fruitful and that, at the deepest level, the closing Db

harmony of 'Helle Nacht' is to be best understood as relating to a "suspended tonality" of F# minor. Thinking what it means to say that the 'Dehmel Songs' might, in some deep sense, be in the key of F# minor may not only help in trying to characterize the nature of the conceivable extremes of complexity of a syntax of harmonic progression when drawn to the "farthest limits of tonality," but, more generally, may also help to clarify of what it means to say that any tonal piece is in one key as opposed to some other. Supposing, for instance, that there is some significant sense in which the 'Dehmel Songs' are in the key of F# minor, and given that each of the twelve pitch-classes can be understood at one point or another in the course of the songs to function, at least very locally, as a referential tonic in some sense, why is it truer to say that the song cycle is in F# minor as opposed to, for instance, D minor or G minor or F# major? In the case of the 'Dehmel Songs' it would seem that the complexity of the tonal structure derives partly from a striving, on the one hand, to avoid, above all else, an obvious taking of ones "bearings" with reference to an F# minor tonic, but, on the other, to derive an all encompassing coherence in the tonal structure as a whole by ordering that structure around that apparently absent centre such that in closing on a harmony which stands at the farthest possible distance from F# minor, that harmony will still reach towards that centre by way of its relations to all those harmonies more closely related to that referential tonic.

The relevance of the issue of unequal temperament to the tonal effects discussed

Another consideration which may be relevant to the issue of key in this piece is that of an equally tempered, as opposed to an unequally tempered, circle of fifths. In most systems of unequal temperament an F# minor triad would be among those with the b3rds that are especially tempered or flattened; that is, the interval F#-A would be

considerably smaller than the natural minor third.²⁶ In an unequal temperament an F# minor triad would, then, be among the most out of tune minor triads. Thus the use of such a temperament might itself help render invisible a referential key of F# minor by rendering its tonic triad especially out of tune. An F# major triad, conversely, in that its 3rd would be especially bright, would be among the more dominant of the major triads, i.e., its 3rd (A#) would be especially expressive as a leading tone and, as such, would serve as an especially strong initiative of root progression.

In an unequal temperament, then, an F# minor triad would tend to be among the most "minor" of the minor triads, i.e., those with the flattest b3rds; thus, an F# major triad, which would tend to be among the most "major" of the majors, would tend to be among those which are most different from their minor relatives. D and G minor triads, conversely would tend to be the most "major" (and in tune) of the minor triads while D and G major triads would tend to be among the most "minor" (and in tune) of the majors. The progression from the key of F# around the circle of fifths to the keys of D and G would then be a movement away from a key in which the distinction between

²⁶See Mark Lindley, "J.S.Bach's Tunings", Musical Times 127:1714 (1985), pp. 721-26. In this article Lindley presents a survey of various systems of unequal temperament, some of which were developed around Bach's time and some of which have been developed more recently. With an equal temperament, tempered major and minor 3rds are significantly out of tune: a tempered minor 3rd is considerably smaller than a natural minor 3rd--i.e., a frequency ratio of 5:6--, while a tempered major 3rd is considerably larger than a natural major 3rd--i.e., a frequency ratio of 4:5. In all of those systems presented by Lindley most of the Pythagorean comma is distributed among the fifths toward the "C-side" of the circle of fifths: on the average roughly half of the comma is distributed, in these systems, among the four 5ths between C and A, and another third of the comma, between the five 5ths from A to G#. This brings thirds spanning the "C-side" of the circle more closely in tune and tempers further those spanning the "F#-side". Thus, in these systems, ic3's spanning those 5ths towards the "F#-side" of the circle--e.g. B-(F#-C#)-G#--will tend to be considerably smaller than those spanning 5ths toward the "C-side"--e.g. G-(C-F)-Bb--, the latter being only slightly smaller than a natural minor 3rd. The most in-tune ic3's, then, will tend to be [G-Bb], [D-F], [A-C], while the most tempered will tend to be [Bb-Db] [D#-F#], [G#-B], [C#-E] and [F#-A]. In the complementary hierarchy of ic4's the least tempered, and hence smallest, intervals tend to be [F-A], [C-E], [G-B] and [D-F#], while the most tempered, and hence largest, ic4's will tend to be [B-D#], [F#-A#], [C#-E#] and [G#-B#].

the two genders, major and minor, is especially emphasized, and toward ones which are among the most androgynous in character.

It is conceivable that compositional use could be made of a temperament that would especially highlight this kind of effect. With respect to the congruence between text and music in these songs such a softening of the differentiation of harmonic genders in the key of G in particular could have a significant effect in that in 'Nächtliche Scheu' the shift of genders in the turn away from the key of G minor (upon the occurrence of the G major harmony on the downbeat of m.23) would be especially subtle, and thus might help musically animate the most specifically erotic (and gender-oriented) of the metaphors in the text of these songs: "Und mit zaghafter Gewalt, Mädchen kÜss ich dich." ("And with timorous might, O maiden, do I kiss you.") Admittedly, it is at least questionable to identify these two senses of gender, but this inverse relationship between tonal and erotic extremes, as extremes, could be important in helping to articulate the very significant moment of turning at this point in the background structure of the songs, i.e., a turn away from the referential G tonic (and, I think, a significant juncture in the structure of the text as well). This softening of gender distinctions in D and G would be brought together in 'Nächtliche Scheu' with the complementary effect of a heightening of the F# major-minor dualities, e.g. in ms.1-3, m.8 and ms.17-18. (Note too the B major/minor duality in ms.24-25. This duality too would be more emphatic if one used an unequal temperament.)

Lastly, the issue of tuning might also be relevant with respect to the effects of congruence in these pieces between tonal and serial effects of the harmonic structure. Because ic4's in an unevenly tempered circle of fifths would vary considerably in size, some augmented-triad sets would be tempered differently than others. The triad [C-E-Ab(G#)], for instance, would have one especially small (i.e., in-tune) ic4--[C-E]--, the other two--[E-G#(Ab)] and [G#(Ab)-C]--being considerably larger and more or less

equal in size. Thus, for example, Group 1 (Type I or II) C, E and Ab triads would each have distinct tonal characters in that the small ic4 would be placed differently in each, i.e., it would be [8-3] in the C triad, [8-#5(b6)] in the E triad and [3-#5(b6)] in the Ab triad. If 'Am Ufer', for instance, were to be performed using an unequally tempered instrument, there might be a significant musical effect in the movement from the Type II E triads in ms.1-4 to the Type I G# triads of m.8 and then back to the Type II E triads of ms.15-17. Conversely, in an unequal temperament, Group 1 F#, D and Bb triads would tend to have one especially large ic4--[F#-A#(Bb)]--, the other two being considerably smaller and more or less equal in size. The other two triads [B-D#(Eb)-G(Fx)] and [A-C#(Db)-E#(F)] would each tend to have one relatively small ic4--[D#(Eb)-G] and [F(E#)-A]--, one relatively large one--[B-D#] and [C#-E#(F)]--, and another which was just slightly smaller than the large one. Thus there might be a good musical reason for hearing, in ms.31-33 of 'Himmelfahrt', a shift from an unequally tempered Type I F# triad to its ST-related partner, a Type I A#(Bb) triad, by way of differently tempered Type I B(Cb) triad, followed by the subsequent shift to a Type I Eb triad, an ST-relative of the B triad. In the same way, it might be interesting to hear the serial pattern in ms.39-40 of 'Himmelfahrt' using an unequally tempered piano.

The sense in which "the farthest limits of tonality" could mean: the limits of usefulness of a particular theory of tonal harmony

Thus far I've considered what Webern might have meant in saying that in the summer of 1906 he had reached "the farthest limits of tonality" in the light of how we might perhaps hear a reaching towards those farthest extremes in the tonal structure of the 'Dehmel Songs'. But if we consider what he might have meant in saying that he had reached those extremes, rather, in light of what he said of the state of conflict he recognized between Schoenberg the teacher and Schoenberg the composer during this

early period, we might understand "the farthest limits of tonality" to be saying something quite different. Of Schoenberg the composer, exploring in his own way the extremes of tonal complexity, he says: "It was frightfully difficult for him as a teacher; the purely theoretical side had given out. By pure intuition, amid frightful struggles, his uncanny feeling for form had told him what was wrong." In his saying that "the purely theoretical side" of Schoenberg "had given out" and that he'd been left with "pure intuition" and "his uncanny feeling for form," Webern is not necessarily saying, whether he completely realized this or not, that Schoenberg's "frightful struggles" were with the true limits of tonality. What we could understand him to be saying is rather that the developing of Schoenberg's own artistic sensibility with respect to the extreme possibilities of tonal complexity in a harmonic progression--or, to put it more simply, the sharpening of his ear for tonal hierarchy in music--was coming up against the serious shortcomings in his own theoretical models of the nature of tonal harmony.

Many of those shortcomings in his tonal-harmonic theorizing stem, I suggest, largely from a practice of Schoenberg the composer of designating notes with names which do not necessarily reflect the way the notes relate to each other diatonically in the harmonic context in which they are heard. Of course the alternative is a musical score which could be very difficult for a performer to read. But it is indeed largely by way of a careful discrimination between what is a diatonic step and what is a chromatic step, and what is in some sense both, in the voice leading that one can come to hear precisely how a progression comprises an overlaying of references to two or more key areas. Schoenberg rendered his scores readable to the performer at the expense of making clear to himself in a theoretical way exactly what his "uncanny instinct for form" was leading him to write. His theoretical distinguishing of the functions of the augmented-sixth chords, and augmented triads and larger whole-tone chords, for example,--all harmonies which both he and Webern acknowledged as

important in leading the way to "extended tonality" or "suspended tonality" --never got much beyond the point of a classifying of these as "vagrant chords" and of progressions in which they might occur as "roving". Webern's particular namings of notes, too, often obscures a clear picture of the distinction between diatonic and chromatic voice-leading connections in a passage and one wonders how clearly he himself distinguished in a theoretical way between a diatonic and a chromatic half-step and thus whether he ever realized how helpful a meticulous attention to appropriate spelling of notes in a score could be in a refining of his theoretical understanding of what his own "pure intuition" was presenting him with.

Schoenberg's harmonic theory was rendered vague, too, partly through his use of too many Roman-numeral symbols in his analysis of root progressions.²⁷ His use of "III", "bIII" and "bVII", in particular, made it difficult for him to think clearly about how references to various tonics are overlaid in a passage. He understood the augmented triad to derive from the building of a harmony on the third degree of a minor scale, e.g. bIII#5/i, a notion which does not say much that is very useful. An understanding of an overlaying of keys in a root progression is much more easily forthcoming if one tries to severely restrict one's use of Roman-numeral names to just a few symbols--e.g. I,i, V (and its variants, VII and #II), bVI (and its relative, bII), and iv (and maybe IV,ii and vi when nothing else will do)--, and then using them in combinations which can represent a hierarchy in an overlaying of references to two or more tonics. If a Group I triad does, in a progression, have some relationship to a referential tonic a minor third below its root, "bVI#5/V" or "V#5/bVI" (or perhaps #II"b6) would probably characterize its function more precisely than does bIII#5. This

²⁷See Arnold Schoenberg, Theory of Harmony, trans. Roy E. Carter (Los Angeles: University of California Press, 1978) and Structural Functions of Harmony, ed. Leonard Stein (New York: Norton, 1954).

kind of vagueness in Schoenberg's harmonic theory may indeed be related to some confusion in his naming of notes.

That Webern had "reached the farthest limits of tonality" may mean, therefore, that he had reached the farthest extremes of complexity possible and that beyond those limits such notions as 'root', 'root progression', 'tonic', 'dominant', 'diatonic half-step', 'chromatic half-step', etc. are no longer relevant in the thinking of how a harmonic succession is structured. Or it may mean that his harmonic theories involving these notions were too primitive to be of use in distinguishing tonal relationships beyond a certain degree of complexity. For Webern there was apparently no clear distinction, for instance, between the interval formed by the root and the 9th in a V9 (or V9/V) chord and that formed in a dominant bII (or bVI) by the root and a x8 component--i.e., a leading tone to the 3rd of I (or of V)--and thus no clear distinction between the diatonic interval structure of a whole tone-hexachordal V chord with a [#4(or b5)-7-9] component--Type VI or Type VIII--and that of the corresponding bII chord with a [#4-#6-x8] component--Type VII. He inadvertently illustrates precisely this confusion, I suggest, in the fourth of his lectures entitled "The Path to Twelve-Note Music", in a discussion of these two kinds of whole-tone hexachordal harmonies, when he spells his example of the augmented-sixth-chord version of such a harmony as: "F-A-C#-G-B-D#", i.e., bVI[8-3-#5-2-#4-#6]/A. His "9th", "G", would most typically function, at least in retrospect upon the typical resolution of such a chord, as a x8-- i.e., as a leading tone to the 3rd (G#) of V/A or of V/V/d, as it does, for instance, in m.40 of 'Himmelfahrt'--and thus should perhaps be spelled as Fx (that note being the counterpart of a #5th in the corresponding V#5/V/A or of a #9th in V#9/A). What Webern spells is a kind of dominant bII of E minor--i.e., with a Type IX component [9-#4-#6], which is perhaps what he did indeed have in mind in m.40 of 'Himmelfahrt', but his spelling does not clearly address the ambiguity surrounding his treatment of these

sorts of "9ths" in the 'Dehmel Songs'. On the other hand, the spelling of his example of the dominant V version of such a harmony--"Eb-G-B-A-Db-F," i.e., V/V[8-3-#5-#4-7-9]/Db--corresponds to a typical function of this chord, although as part of a simple whole-tone V/Ab chord his "#4th" ("A") would ideally resolve as a b5th (Bbb) to the root of I (or to the root of V/V/Gb minor). The point is that the use of either sort of whole-tone chord usually involves the overlaying of references to a series of tonics a fifth apart, e.g. E major or minor, A major (and possibly d minor), in the case of his first example, and Ab major, Db major (and possibly Gb minor) in the case of his second. The way Webern uses these harmonies in the 'Dehmel Songs' inevitably presents questions as to an appropriate spelling for such a chord, questions which bring into focus some key issues regarding the nature of tonal harmony at the more extreme limits of complexity.²⁸

In Chapter 2 I distinguished five kinds of augmented triads, all of which are, I believe, realizable in a tonal progression by way of a careful overlaying of keys, yet the augmented-triad types which occur in the 'Dehmel Songs' are all of the simplest kind, Kind U. In exploring the extremes of complexity in surface-level patterning of diatonic voice leading, then, Webern had, with the 'Dehmel Songs', but barely begun to consider the possibilities. But for Webern to have pursued the limits of tonality in this respect would have required a theory of harmony perhaps more refined than his in terms of tonal voice leading.

²⁸The Path to the New Music, pp.47-48.

Conclusion

Having been drawn to the limits of tonality, at least in the sense of having perhaps reached the limits of usefulness of his harmonic theories, during the years 1906-08, Webern turned, in the 'Dehmel Songs', to the overlaying of his dense tonal patterns with a fairly primitive serial patterning of his pitch material which would lend another kind of coherence to the harmonic progressions both at the foreground and at deeper levels of structure. The two kinds of effects are congruent not only in the sense that they stand side by side and are each interesting to hear in themselves: the design of the tonal structure is constrained to some degree in that it must accommodate the serial patterning in such a way that the tonal structure remains intelligible as such, but the effects of the serial patterning can themselves have a tonal function in that patterns of recurrence of certain sets can help in articulating significant tonal effects and in associating related moments in the tonal-harmonic progressions. Recall, for instance, how the important link in the tonal structure of 'Himmelfahrt' between the climax in m.31 and the beginning of the consummation of the final cadence in ms.39-40 is articulated partly by way of the sudden very prominent exposures of the serial skeleton at these two moments; or how the tonal effects of recoiling back around the circle of fifths in the first two songs are articulated with the help of a succession of augmented triads descending in half-steps such that the set with which the pattern begins, [E-G#-C], recurs at the end, [G#-B#-Dx] ('Am Ufer' m.8).

Given that in the 'Dehmel Songs' Webern was already experimenting with relatively simple extratonal pitch-patterning effects, effects whose design was constrained by the concern for achieving a profound tonal coherence in the harmonic progressions which reaches from the foreground to the very deepest levels of structure, one must wonder what sorts of constraints he was referring to when he spoke of

Schoenberg's "frightful struggles." What were the grounds of Schoenberg's "uncanny feeling for form," his "pure intuition," grounds upon which to decide "what was wrong"? What sort of constraint, if not that of a concern for some kind of tonal coherence, would lead him to decide that something was "wrong" with a piece of music?

Webern himself did, indeed, in his own work feel bound by what he regarded as "natural laws." In The Path to the New Music he begins by comparing natural laws related to our sense of hearing, which constitute constraints in the way we make music, to the natural constraints said by Karl Kraus to govern our use of language, and to the natural laws related to our sense of sight said by Goethe to constitute colour. Comparing his own ideas about music to those of Karl Kraus about language, Webern speaks of a "moral gain" to be sought by way of a concern with the mystery of musical laws. Quoting Karl Kraus, he says:

This guarantee of a moral gain lies in a spiritual discipline which ensures utmost responsibility toward the only thing there is no penalty for injuring--language--and which is more suited than anything else to teach respect for all the other values in life... It is better to dream of plumbing the riddles behind her rules, the plans behind her pitfalls, than of commanding her... To teach people to see the chasms in truisms--that would be the teacher's duty toward a sinful generation.²⁹

Then after a brief discussion of Goethe's theories of art and of colour he goes on to explain how musicians in the West have come to use the materials of pitch and harmony that Nature has provided in the harmonic series:

...whence does this system of sound come, which man uses wherever musical works exist? How has it come about? Now, so far as we know, Western music--I mean everything that has developed since the days of Greek music up to our own time--Western music uses certain scales which have taken on particular forms. We know of the Greek modes, then the church modes of bygone ages. How did these scales come about? They are really a manifestation of the overtone series. As you know, the octave comes first, then the fifth, then in the next octave the third, and if you go on, the seventh. What is quite clear here? That the fifth is the first obtrusive note, that is to say it has the strongest affinity with the tonic. This implies that the latter note has the same relationship with the one a fifth

²⁹Ibid, pp.9-10.

lower. So here we have a kind of parallelogram of forces, "equilibrium" is produced, there is a balance between the forces pulling upwards and downwards. Now the remarkable thing is that the notes of Western music are a manifestation of the first notes of this parallelogram of forces: C (GE)--G (DB)--F (CA). So the overtones of the three closely neighbouring and closely related notes contain the seven notes of the scale.³⁰

From this he concludes that "as a material it accords completely with nature. Our seven-note scale can be explained in this way, and we may infer that it also came into being in this way." He ends the discussion expressing a particular reverence for this diatonic system of the West in saying that "the special consistency and firm basis of our system seem proved by the fact that our music has been assigned a special path."

Perhaps, then, the grounds for both Schoenberg's and Webern's musical intuitions about what is right and what is wrong in writing complex harmonic music was their "uncanny feeling" for the natural constraints governing what is and what is not a tonally coherent progression. I suspect that the deep "moral gain" of the kind with which Webern was concerned is not to be sought, or is not, at least, to be expected, in writing music which is serially coherent unless the composer is also concerned with being sensitive to the natural laws of hearing governing what is and what is not tonally coherent. Given Webern's great reverence for these laws, a reverence expressed so wonderfully in the 'Dehmel Songs', I suggest that it is doing his musical sensibility and ourselves a grave injustice to hear in his later music only the crystalline beauty of its serial structure and to ignore the possibility that the path toward serial counterpoint along which he was drawn was a path leading not beyond, but rather toward, the farthest limits of tonality.

³⁰Ibid, pp.12-13.

Example 1. A tonal progression comprising an extratonal scaffolding of consecutive "minor sevenths".

Example 2. 'Ideale Landschaft', ms. I-11.

Handwritten musical score for a piano piece, featuring complex notation, including triplets, slurs, and dynamic markings (pp, p, f, ff, fff). The score is written on multiple staves, with some sections enclosed in brackets. The notation includes various musical symbols such as notes, rests, and accidentals.

Example 3. 'Ideale Landschaft', ms.10-20.

Handwritten musical score for 'Ideale Landschaft', ms.10-20. The score is written on three systems of staves. The first system (measures 10-20) shows a piano introduction with a treble and bass staff. The second system (measures 21-30) continues the piano part with complex arpeggiated figures. The third system (measures 31-40) shows the piano part continuing, with a final measure marked 'ff'. Below the piano part, there is a detailed harmonic analysis of the first system, showing chord progressions and voice leading. The analysis includes Roman numerals (I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII) and figured bass notation (e.g., 8 7 6 5 4 3 2 1, 7 6 5 4 3 2 1, 6 5 4 3 2 1, 5 4 3 2 1, 4 3 2 1, 3 2 1, 2 1, 1, 2, 3, 4, 5, 6, 7, 8). The analysis also includes a key signature change from F major to E-flat major (F: Eb: (ii)).

Example 4a. 'Ideale Landschaft', ms.23-25.

Handwritten musical score for measures 23, 24, and 25. The score is written for a single melodic line (treble clef) and a piano accompaniment (grand staff). The key signature is one sharp (F#). Measure 23 shows a melodic phrase starting with a quarter note, followed by a half note, and a whole note. Measure 24 is a whole rest. Measure 25 shows a melodic phrase starting with a quarter note, followed by a half note, and a whole note. The piano accompaniment consists of a steady eighth-note pattern in the right hand and a steady quarter-note pattern in the left hand. The tempo/mood marking *sehr ausdrucksvoll* is written in the piano part.

Harmonic analysis diagram for measures 23, 24, and 25. The diagram shows the chord structure and voice leading for the piano accompaniment. The chords are labeled as follows:

- Measure 23: $E: I(W)$ (E major triad with a whole note)
- Measure 24: V (E major triad with a whole note)
- Measure 25: v (E major triad with a whole note)

The diagram also shows the voice leading for the piano part, with notes connected by lines indicating the movement of each voice. The notes are labeled with numbers 1 through 7, indicating the scale degrees. The diagram shows that the piano part is in a steady eighth-note pattern in the right hand and a steady quarter-note pattern in the left hand, with the notes moving in parallel motion.

Example 7. 'Am Ufer', ms. 1-6.

[illegible]

Example 8. 'Am Ufer', ms.6-11.

The musical score is written on two systems of staves. The first system (measures 1-11) shows a vocal line and a piano accompaniment. The second system (measures 12-21) continues the piece with more complex piano textures. The notation includes various musical symbols such as notes, rests, accidentals, and dynamic markings like 'pp' and 'ppp'. There are also some handwritten annotations and corrections throughout the score.

Measure numbers 1 through 21 are indicated at the top of the first system. The score includes various musical notations such as notes, rests, accidentals, and dynamic markings like 'pp' and 'ppp'. There are also some handwritten annotations and corrections throughout the score.

At the bottom right of the page, there are some handwritten notes and symbols, including 'B:W' and 'A:W', which likely refer to different versions or editions of the manuscript.

Example 9. 'Am Ufer', ms.10-15.

Handwritten musical score for 'Am Ufer', measures 10-15. The score is written on five systems of staves. The first system (measures 10-12) includes a vocal line and a piano accompaniment. The second system (measures 13-15) continues the vocal and piano parts. The third system (measures 16-18) shows the vocal line and piano accompaniment. The fourth system (measures 19-21) continues the vocal and piano parts. The fifth system (measures 22-24) shows the vocal line and piano accompaniment. The score is marked with dynamics such as pp, ppp, and pp. The notation includes various musical symbols such as notes, rests, and accidentals.

Example 10. 'Am Ufer', m.15 - 'Himmelfahrt,' m.3.

Handwritten musical score for "Lied der Nacht" by Franz Schubert. The score is written on three systems of staves. The first system includes measures 15, 16, 17, 18, 19, and 20. The second system includes measures 21, 22, 23, 24, 25, and 26. The third system includes measures 27, 28, 29, 30, 31, and 32. The score is marked with "ppp" (pianissimo) and "Sehr ruhig" (Very calm). The key signature is one flat (B-flat major/D minor) and the time signature is 3/4. The notation includes various musical symbols such as notes, rests, and dynamic markings.

Example 11a. 'Himmelfahrt', ms.2-4.

Musical score for Example 11a, measures 2-4. The score is in G-flat major (three flats) and 4/4 time. It features a piano accompaniment with a treble and bass staff. A long slur covers measures 2, 3, and 4. Measure numbers 2, 3, and 4 are circled above the staff.

Diagrammatic representation of the musical score above, showing pitch classes and voice leading. Notes are represented by dots on a staff, with boxes and arrows indicating harmonic and melodic relationships. Some notes are circled, and others are boxed.

Functional harmonic analysis diagram showing chord progressions and voice leading. It includes Roman numerals and figured bass notation. The progression starts with $Eb: I$ and $D: bII$, followed by a transition to $F\sharp b: bVI - VIIi$. The diagram shows the movement of individual voices (labeled 1, 2, 3, 4, 5, 6, 7, 8, 9) between these chords.

Example 12. 'Himmelfahrt', ms.6-14.

A handwritten musical score for the song 'The Rose Tree'. The score is written on two staves. The top staff uses a treble clef and the bottom staff uses a bass clef. The music is in 4/4 time, indicated by a '4' over the first measure. The key signature has one flat (B-flat). The melody is written on the top staff, and the accompaniment is on the bottom staff. The score includes various musical notations such as notes, rests, and bar lines. There are some corrections and erasures visible in the handwriting. The title 'The Rose Tree' is written at the top right of the page.

Handwritten musical score for a piece in E major, 3/4 time. The score is written on a single staff with a treble clef. The key signature has one sharp (F#). The time signature is 3/4. The score is divided into measures by vertical bar lines. The notes are written in a cursive, handwritten style. The score is a single melodic line. The notes are: E4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4, B3, A3, G3, F#3, E3, D3, C3, B2, A2, G2, F#2, E2, D2, C2, B1, A1, G1, F#1, E1, D1, C1, B0, A0, G0, F#0, E0, D0, C0, B-1, A-1, G-1, F#-1, E-1, D-1, C-1, B-2, A-2, G-2, F#-2, E-2, D-2, C-2, B-3, A-3, G-3, F#-3, E-3, D-3, C-3, B-4, A-4, G-4, F#-4, E-4, D-4, C-4, B-5, A-5, G-5, F#-5, E-5, D-5, C-5, B-6, A-6, G-6, F#-6, E-6, D-6, C-6, B-7, A-7, G-7, F#-7, E-7, D-7, C-7, B-8, A-8, G-8, F#-8, E-8, D-8, C-8, B-9, A-9, G-9, F#-9, E-9, D-9, C-9, B-10, A-10, G-10, F#-10, E-10, D-10, C-10, B-11, A-11, G-11, F#-11, E-11, D-11, C-11, B-12, A-12, G-12, F#-12, E-12, D-12, C-12, B-13, A-13, G-13, F#-13, E-13, D-13, C-13, B-14, A-14, G-14, F#-14, E-14, D-14, C-14, B-15, A-15, G-15, F#-15, E-15, D-15, C-15, B-16, A-16, G-16, F#-16, E-16, D-16, C-16, B-17, A-17, G-17, F#-17, E-17, D-17, C-17, B-18, A-18, G-18, F#-18, E-18, D-18, C-18, B-19, A-19, G-19, F#-19, E-19, D-19, C-19, B-20, A-20, G-20, F#-20, E-20, D-20, C-20, B-21, A-21, G-21, F#-21, E-21, D-21, C-21, B-22, A-22, G-22, F#-22, E-22, D-22, C-22, B-23, A-23, G-23, F#-23, E-23, D-23, C-23, B-24, A-24, G-24, F#-24, E-24, D-24, C-24, B-25, A-25, G-25, F#-25, E-25, D-25, C-25, B-26, A-26, G-26, F#-26, E-26, D-26, C-26, B-27, A-27, G-27, F#-27, E-27, D-27, C-27, B-28, A-28, G-28, F#-28, E-28, D-28, C-28, B-29, A-29, G-29, F#-29, E-29, D-29, C-29, B-30, A-30, G-30, F#-30, E-30, D-30, C-30, B-31, A-31, G-31, F#-31, E-31, D-31, C-31, B-32, A-32, G-32, F#-32, E-32, D-32, C-32, B-33, A-33, G-33, F#-33, E-33, D-33, C-33, B-34, A-34, G-34, F#-34, E-34, D-34, C-34, B-35, A-35, G-35, F#-35, E-35, D-35, C-35, B-36, A-36, G-36, F#-36, E-36, D-36, C-36, B-37, A-37, G-37, F#-37, E-37, D-37, C-37, B-38, A-38, G-38, F#-38, E-38, D-38, C-38, B-39, A-39, G-39, F#-39, E-39, D-39, C-39, B-40, A-40, G-40, F#-40, E-40, D-40, C-40, B-41, A-41, G-41, F#-41, E-41, D-41, C-41, B-42, A-42, G-42, F#-42, E-42, D-42, C-42, B-43, A-43, G-43, F#-43, E-43, D-43, C-43, B-44, A-44, G-44, F#-44, E-44, D-44, C-44, B-45, A-45, G-45, F#-45, E-45, D-45, C-45, B-46, A-46, G-46, F#-46, E-46, D-46, C-46, B-47, A-47, G-47, F#-47, E-47, D-47, C-47, B-48, A-48, G-48, F#-48, E-48, D-48, C-48, B-49, A-49, G-49, F#-49, E-49, D-49, C-49, B-50, A-50, G-50, F#-50, E-50, D-50, C-50, B-51, A-51, G-51, F#-51, E-51, D-51, C-51, B-52, A-52, G-52, F#-52, E-52, D-52, C-52, B-53, A-53, G-53, F#-53, E-53, D-53, C-53, B-54, A-54, G-54, F#-54, E-54, D-54, C-54, B-55, A-55, G-55, F#-55, E-55, D-55, C-55, B-56, A-56, G-56, F#-56, E-56, D-56, C-56, B-57, A-57, G-57, F#-57, E-57, D-57, C-57, B-58, A-58, G-58, F#-58, E-58, D-58, C-58, B-59, A-59, G-59, F#-59, E-59, D-59, C-59, B-60, A-60, G-60, F#-60, E-60, D-60, C-60, B-61, A-61, G-61, F#-61, E-61, D-61, C-61, B-62, A-62, G-62, F#-62, E-62, D-62, C-62, B-63, A-63, G-63, F#-63, E-63, D-63, C-63, B-64, A-64, G-64, F#-64, E-64, D-64, C-64, B-65, A-65, G-65, F#-65, E-65, D-65, C-65, B-66, A-66, G-66, F#-66, E-66, D-66, C-66, B-67, A-67, G-67, F#-67, E-67, D-67, C-67, B-68, A-68, G-68, F#-68, E-68, D-68, C-68, B-69, A-69, G-69, F#-69, E-69, D-69, C-69, B-70, A-70, G-70, F#-70, E-70, D-70, C-70, B-71, A-71, G-71, F#-71, E-71, D-71, C-71, B-72, A-72, G-72, F#-72, E-72, D-72, C-72, B-73, A-73, G-73, F#-73, E-73, D-73, C-73, B-74, A-74, G-74, F#-74, E-74, D-74, C-74, B-75, A-75, G-75, F#-75, E-75, D-75, C-75, B-76, A-76, G-76, F#-76, E-76, D-76, C-76, B-77, A-77, G-77, F#-77, E-77, D-77, C-77, B-78, A-78, G-78, F#-78, E-78, D-78, C-78, B-79, A-79, G-79, F#-79, E-79, D-79, C-79, B-80, A-80, G-80, F#-80, E-80, D-80, C-80, B-81, A-81, G-81, F#-81, E-81, D-81, C-81, B-82, A-82, G-82, F#-82, E-82, D-82, C-82, B-83, A-83, G-83, F#-83, E-83, D-83, C-83, B-84, A-84, G-84, F#-84, E-84, D-84, C-84, B-85, A-85, G-85, F#-85, E-85, D-85, C-85, B-86, A-86, G-86, F#-86, E-86, D-86, C-86, B-87, A-87, G-87, F#-87, E-87, D-87, C-87, B-88, A-88, G-88, F#-88, E-88, D-88, C-88, B-89, A-89, G-89, F#-89, E-89, D-89, C-89, B-90, A-90, G-90, F#-90, E-90, D-90, C-90, B-91, A-91, G-91, F#-91, E-91, D-91, C-91, B-92, A-92, G-92, F#-92, E-92, D-92, C-92, B-93, A-93, G-93, F#-93, E-93, D-93, C-93, B-94, A-94, G-94, F#-94, E-94, D-94, C-94, B-95, A-95, G-95, F#-95, E-95, D-95, C-95, B-96, A-96, G-96, F#-96, E-96, D-96, C-96, B-97, A-97, G-97, F#-97, E-97, D-97, C-97, B-98, A-98, G-98, F#-98, E-98, D-98, C-98, B-99, A-99, G-99, F#-99, E-99, D-99, C-99, B-100, A-100, G-100, F#-100, E-100, D-100, C-100, B-101, A-101, G-101, F#-101, E-101, D-101, C-101, B-102, A-102, G-102, F#-102, E-102, D-102, C-102, B-103, A-103, G-103, F#-103, E-103, D-103, C-103, B-104, A-104, G-104, F#-104, E-104, D-104, C-104, B-105, A-105, G-105, F#-105, E-105, D-105, C-105, B-106, A-106, G-106, F#-106, E-106, D-106, C-106, B-107, A-107, G-107, F#-107, E-107, D-107, C-107, B-108, A-108, G-108, F#-108, E-108, D-108,

Example 15. 'Himmelfahrt', ms.27-33.

Handwritten musical score for 'Himmelfahrt', measures 27-33. The score is written in B-flat major (two flats) and 3/4 time. It features a vocal line and a piano accompaniment.

Measures 27-33:

- Measure 27:** *accel.* (accelerando)
- Measure 28:** *rit.* (ritardando)
- Measure 29:** *rit.* (ritardando)
- Measure 30:** *sehr breit* (very broad)
- Measure 31:** *sehr breit* (very broad)
- Measure 32:** *sehr breit* (very broad)
- Measure 33:** *1. Zeitmaß* (first time measure)

The piano accompaniment includes dynamic markings: *f* (forte), *ff* (fortissimo), and *fff* (fortississimo). The vocal line includes lyrics: *z u v w x y z*.

Handwritten Annotations:

- Below the piano part, there are handwritten notes: *z u v w x y z*.
- At the bottom, there is a complex system of handwritten notes and symbols, including: *B(C): V/V(V) - V - vi - V*, *C: (b) - I - - - - I -*, *(V/V - b) - I*, *(I)*, *(b) - V - I*.

Example 15a. 'Himmelfahrt', ms.29-30.

Handwritten musical score for Example 15a, 'Himmelfahrt', measures 29-30. The score is written in B-flat major (two flats) and 3/4 time. It consists of three staves: a vocal line (treble clef), a piano accompaniment (grand staff), and a figured bass line (bass clef).

Measure 29: The vocal line begins with a triplet of eighth notes (marked *best 3*). The piano accompaniment features a triplet of eighth notes in the right hand and a triplet of eighth notes in the left hand, marked *ff*. The figured bass line shows a triplet of eighth notes.


Measure 30: The vocal line continues with a triplet of eighth notes. The piano accompaniment features a triplet of eighth notes in the right hand and a triplet of eighth notes in the left hand, marked *rit.*. The figured bass line shows a triplet of eighth notes.

Figured Bass: The figured bass line is written in a system of numbers and symbols. The first system shows the following figures: $\text{C: } \text{bII} - \text{V/V} - \text{bII}$. The second system shows the following figures: $(\text{Eb: } \text{bVI} - \text{iv} - \text{bII} - \text{bVI} - \text{V} -)$. The figures are connected by lines, indicating a sequence of chords.

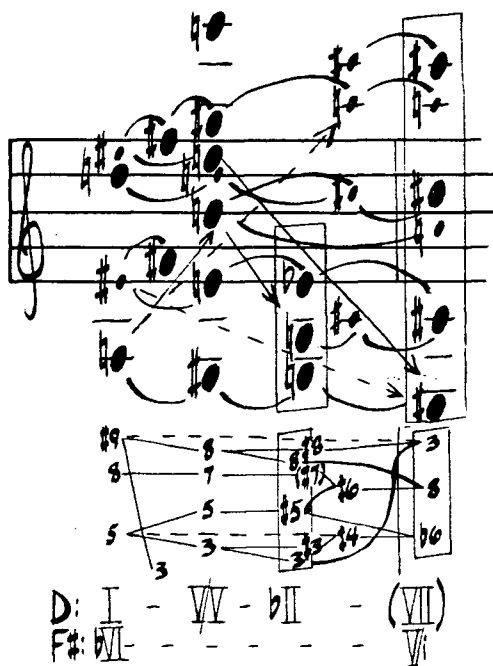
Example 16. 'Himmelfahrt', ms.32-38.

Handwritten musical score for a piece titled "1. Zeitmaß". The score is written for voice and piano. The key signature is B-flat major (two flats). The time signature is 2/4. The score is marked with measures 32 through 39. The tempo is marked "1. Zeitmaß". The voice part is on a single staff with a treble clef. The piano accompaniment consists of two staves, treble and bass. The score includes dynamics such as piano (p), forte (f), and crescendo/decrescendo hairpins. Performance instructions include "rit." (ritardando) and "fz." (forzando). The score is written in a handwritten style with some corrections and markings.

A handwritten musical score for the song 'The Rose Tree'. The score is written on two staves, a treble staff and a bass staff. The melody is written on the treble staff, and the bass line is on the bass staff. The music is in 2/4 time, indicated by the 'C' time signature. The key signature has one flat (B-flat). The melody consists of a series of eighth and sixteenth notes, with some rests. The bass line is simpler, with mostly quarter and eighth notes. There are several measures where the melody and bass line are written in a more complex, overlapping manner, possibly indicating a double bass or a more intricate accompaniment. The handwriting is in ink on aged paper.

Ex: 

Example 16a. 'Himmelfahrt', ms.37-38 (from an early version).



D: I - V - bII - (VII)
 F#: VI - - - - - VI

Example 17. 'Himmelfahrt', m.35 - 'Nächtliche Scheu', m.3.

The image displays a handwritten musical score for two pieces: 'Himmelfahrt' (measures 35-47) and 'Nächtliche Scheu' (measures 1-3). The score is written for piano and includes various performance instructions and dynamic markings.

Measure Numbers: 40, 41, 42, 43, 44, 45, 46, 47, 1, 2, 3.

Performance Instructions:

- rit.* (ritardando)
- sehr schnell* (very fast)
- breit* (broad)
- sehr langsam* (very slow)
- ppp* (pianississimo)
- pp* (pianissimo)
- Nicht zu langsam* (not too slow)

Dynamic Markings: *ppp*, *pp*.

The score features complex polyphonic textures with multiple staves and intricate melodic lines. The notation includes various musical symbols such as notes, rests, and dynamic markings.

Example 18. 'Nächtliche Scheu', ms.1-4.

① Nicht zu langsam pp ② ③ ④

Harmonic diagrams below the staves:

- Diagram 1: $D: \text{VII}$ - $F\#:$ I - $bVII$
- Diagram 2: $Bb(\text{VI})$ - I - $bVII$
- Diagram 3: $V - I(-bII)$ - $(\text{VII} \text{ VI}) - \text{VII} - \text{IV}$

Example 19. 'Nächtliche Scheu', ms.3-8.

A handwritten musical score for the song 'The Rose Tree'. The score is written on three staves: a single treble staff at the top, and a grand staff (treble and bass) below it. The music is in 2/4 time, indicated by the 'C' time signature. The key signature has one flat (B-flat). The melody is written in the top treble staff, and the accompaniment is in the grand staff. The score is divided into measures by vertical bar lines. Above the first staff, there are circled numbers 3, 4, 5, 6, 7, and 8, likely indicating measure numbers. The handwriting is in ink on aged paper.

A handwritten musical score for the song 'The Rose Tree'. The score is written on two staves, a treble staff on top and a bass staff on the bottom. The treble staff begins with a treble clef and a key signature of one sharp (F#). The melody is written in a simple, folk-like style with many beamed eighth and sixteenth notes. The bass staff begins with a bass clef and a key signature of one sharp (F#). The bass line is simpler, often using whole and half notes. The entire score is enclosed in a rectangular box. The handwriting is in ink and appears to be from a 19th-century manuscript.

Handwritten musical score for a string quartet, featuring a complex arrangement of notes and rests across multiple staves. The notation includes various musical symbols such as clefs, key signatures, and dynamic markings. The score is written in a cursive, handwritten style.

Example 20. 'Nächtliche Scheu', ms.8-13.

The musical score is handwritten and consists of two systems. The top system features a vocal line (treble clef) and a piano accompaniment (grand staff). The piano part includes dynamic markings such as *pp* and *ppp*. The bottom system shows a more complex piano accompaniment with multiple staves, including some with ledger lines. Below the bottom system is a detailed harmonic analysis using Roman numerals and figured bass notation.

Harmonic analysis (Roman numerals and figured bass):

$G^b: (VI^-) - (VII^-) - V - VI - V^{\#3} - I - (b_{VI} - - "bVI" - - "bVII" -) V$
 $C: (b_{VI} -) - (VI^-) - (IV^-) - (V -) - (b_{VI} -)$
 $F^{\#}(G^b): V^{\#3} - I - V - V - (I -) - V - V$
 $D: V - (b_{VI} -) - V - V - i - b_{VII} - V/iv - iv - V/iv -$

Example 21. 'Nächtliche Scheu', ms.12-17.

etwas bewegter

ppp

etwas bewegter

ppp

Bb: V

I - (vi -) - (IV - I -) - F#(Gb): V₇ (chord?) - (V -)

D(bVII -) iv - V - bVII - bVI - V

Example 22. 'Nächtliche Scheu', ms.15-20.

Handwritten musical score for 'Nächtliche Scheu', measures 15-20. The score is written for voice and piano. The key signature is B-flat major (two flats). The time signature is 4/4.

Measures 15-20:

- Measure 15:** Voice: *etwas bewegter*. Piano: *etwas bewegter*.
- Measure 16:** Voice: *etwas bewegter*. Piano: *etwas bewegter*.
- Measure 17:** Voice: *etwas bewegter*. Piano: *etwas bewegter*.
- Measure 18:** Voice: *etwas bewegter*. Piano: *etwas bewegter*.
- Measure 19:** Voice: *etwas bewegter*. Piano: *etwas bewegter*.
- Measure 20:** Voice: *etwas bewegter*. Piano: *etwas bewegter*.

Lyrics:

etwas bewegter
etwas bewegter
drängend
sehr warm
lagend

Harmonic Analysis:

The harmonic analysis below the score shows the following chords and progressions:

- Measure 15:** D: V - G: (bVII -)
- Measure 16:** F#: "V"5" - "7" - "5"
- Measure 17:** "V"5" - "7" - "5"
- Measure 18:** "V"5" - "7" - "5"
- Measure 19:** "V"5" - "7" - "5"
- Measure 20:** "V"5" - "7" - "5"

Handwritten Annotations:

- etwas bewegter* (written above the voice staff in measures 15-20).
- ppp* (written below the piano staff in measure 17).
- drängend* (written below the piano staff in measure 18).
- sehr warm* (written below the piano staff in measure 19).
- lagend* (written below the piano staff in measure 20).

[illegible]

Example 24. 'Nächtliche Scheu', ms.24 - 'Helle Nacht', m.4.

The image displays a musical score for a piece titled 'Nächtliche Scheu' (ms. 24) and 'Helle Nacht' (m. 4). The score is written for piano (pp) and includes dynamic markings such as *pp*, *p*, *ppp*, and *zögernd*. The tempo/mood is indicated as 'Sehr zart, mässig'.

The score is divided into two systems. The first system (measures 24-27) shows a piano introduction with a melody in the right hand and accompaniment in the left hand. The second system (measures 28-31) continues the melody and accompaniment, with dynamic markings *pp*, *p*, *ppp*, and *zögernd*.

Below the musical score is a detailed harmonic analysis. It includes a diagram showing the relationship between the piano and the analysis, with lines connecting specific notes and chords. The analysis itself is a complex web of lines and symbols, including Roman numerals (I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII) and various musical notations (e.g., $\frac{V}{V}$, $\frac{V}{IV}$, $\frac{V}{III}$, $\frac{V}{II}$, $\frac{V}{I}$, $\frac{V}{bII}$, $\frac{V}{bIII}$, $\frac{V}{bIV}$, $\frac{V}{bV}$, $\frac{V}{bVI}$, $\frac{V}{bVII}$, $\frac{V}{bVIII}$, $\frac{V}{bIX}$, $\frac{V}{bX}$, $\frac{V}{bXI}$, $\frac{V}{bXII}$).

Example 25. 'Helle Nacht', ms.1-8.

Handwritten musical score for "Sonata in G major, Op. 10, No. 3" by Franz Liszt. The score is for piano and includes a vocal line. It features dynamic markings like "Sehr zart, massig", "pp", "ppp", and "etwas bewegter". The score is divided into measures numbered 1 through 8. The notation includes treble and bass staves with various musical symbols such as notes, rests, and ornaments.

A handwritten musical score on two staves, likely for piano. The notation is dense and complex, featuring many notes, beams, and ties. The top staff begins with a treble clef and a key signature of one sharp (F#). The bottom staff begins with a bass clef and a key signature of one flat (Bb). The music is characterized by frequent beaming of notes, suggesting rapid passages or tremolos. There are numerous ties between notes across measures, indicating sustained sounds or complex rhythmic patterns. The handwriting is fluid, with some notes and beams overlapping, giving it an experimental or avant-garde feel. The score is divided into measures by vertical bar lines, and there are some annotations in parentheses and brackets. The overall impression is one of a highly detailed and technically demanding piece of music.

Handwritten musical score for a string quartet, featuring a complex rhythmic pattern and a key signature of one sharp (F#). The notation includes various musical symbols such as notes, rests, and dynamic markings, with some parts written in a shorthand or abbreviated style. The score is divided into measures by vertical bar lines, and the key signature is indicated by a sharp sign and the letter 'F'.

[illegible][illegible]

Example 27. 'Helle Nacht', ms.12-19

Handwritten musical score for "The Swan" by Maurice Strakosky. The score is written on three systems of staves. The first system includes measures 12 through 19, marked with "ppp" and various musical notations. The second system continues the melody and accompaniment. The third system shows the final measures with figured bass notation at the bottom.

Example 28. 'Helle Nacht', ms.19-23.

Handwritten musical score for measures 19-23 of 'Helle Nacht'. The score is in G major (one sharp) and 3/4 time. It features a vocal line and a piano accompaniment. Measures 19-22 show a vocal melody with eighth and sixteenth notes, and a piano accompaniment with chords and moving lines. Measure 23 is a whole rest for the vocal line and a piano accompaniment with a final chord. Dynamics include ppp and pp. There are also some handwritten annotations like (x) and (x) with a 2 below.

Handwritten musical score for measures 24-28 of 'Helle Nacht'. The score is in G major (one sharp) and 3/4 time. It features a vocal line and a piano accompaniment. Measures 24-28 show a vocal melody with eighth and sixteenth notes, and a piano accompaniment with chords and moving lines. Dynamics include ppp and pp. There are also some handwritten annotations like (x) and (x) with a 2 below.

Handwritten musical score for measures 29-33 of 'Helle Nacht'. The score is in G major (one sharp) and 3/4 time. It features a vocal line and a piano accompaniment. Measures 29-33 show a vocal melody with eighth and sixteenth notes, and a piano accompaniment with chords and moving lines. Dynamics include ppp and pp. There are also some handwritten annotations like (x) and (x) with a 2 below.

Example 29. 'Helle Nacht', ms.23-29.

Handwritten musical score for measures 23-29 of 'Helle Nacht'. The score is in 3/4 time, key of B-flat major. It features a vocal line and a piano accompaniment. Measures 23-25 are marked 'ppp' and measures 26-29 are marked 'pp'. The piano part has a 'tristesse' marking above measure 26. The vocal line has a 'tristesse' marking above measure 26.

Detailed musical score for measures 23-29 of 'Helle Nacht'. The score is in 3/4 time, key of B-flat major. It features a vocal line and a piano accompaniment. The piano part has a 'tristesse' marking above measure 26. The vocal line has a 'tristesse' marking above measure 26.

Handwritten musical score for measures 23-29 of 'Helle Nacht'. The score is in 3/4 time, key of B-flat major. It features a vocal line and a piano accompaniment. The piano part has a 'tristesse' marking above measure 26. The vocal line has a 'tristesse' marking above measure 26.

Example 30. 'Helle Nacht', ms.27-33.

Handwritten musical score for "The Swan" by Camille Saint-Saëns. The score is written on three systems of staves. The top system contains the vocal melody with lyrics in French and English. The middle system contains the piano accompaniment. The bottom system contains the figured bass. The score is marked with various musical notations, including notes, rests, and dynamic markings like "ppp".

Example 31. 'Helle Nacht', ms.34-47.

The image displays a handwritten musical score for a piece titled 'Helle Nacht' from manuscript pages 34-47. The score is organized into three systems of staves. The first system consists of a single staff with measures numbered 34 through 47. The second and third systems each consist of two staves, with measures 48 through 57 and 58 through 67 respectively. The notation includes various musical symbols such as notes, rests, and dynamic markings like 'ppp'. Below the staves is a complex harmonic diagram. This diagram features a grid of notes and rests, with lines connecting them to form a series of chords and intervals. The diagram is labeled with Roman numerals (I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII) and includes a key signature of one flat (B-flat). The diagram is a complex web of lines and notes, representing the harmonic structure of the piece.